



## THE PITFALLS OF CATALAN INDEPENDENCE'S ECONOMIC POSTULATES

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## 1. Introduction

The purpose of this study is to critically examine the economic postulates of the independence movement in Catalonia. Although this examination inevitably requires dealing with certain social and political aspects of Catalan society's drift towards secession, the study focuses on the economic reasoning of that movement and does not address in depth other dimensions of the independence phenomenon.

The first section aims to justify this study by highlighting the decisive role played by economic factors in accentuating pro-independence sentiment in Catalonia.

The second section analyses the economic and fiscal crisis in Spain and Catalonia. The purpose of this second section is to firstly show that the economic crisis of 2008 caused massive fiscal imbalances in each and every public administration in Spain, imbalances whose severity in the various regions has been proportional to the excesses committed before the crisis and the fiscal policies pursued by the respective regional governments. It will be shown that those imbalances have nothing or little to do with the fiscal treatment that these governments receive from the regional financing system. It is also suggested in this section that the magnitude of these imbalances in Catalonia's case and the high political cost of adequately addressing them is one of the main reasons for the drift towards independence of Catalan nationalism. In my opinion, one basic key to understand the dangerous manoeuvres towards independence of those who have never supported it and the open rebellion of those who have always been looking for it lies in the fiscal crisis in Catalonia.

The third section shows that there is no empirical basis for justifying pro-independence sentiments based on fiscal plundering as claimed by the popular slogan "Spain robs us". To this end, a clarification of the concept and meaning of the fiscal balances commonly presented in Catalanian a circles to prove these assertions is provided and an analysis is undertaken of the fiscal treatment of Catalonia by the regional financing system.

The fourth section evaluates the main studies on the economic costs of Catalan independence conducted to date and some thoughts on the costs of holding a plebiscite election or self-determination-referendum. Special attention is devoted to how an independent Catalonia would fit within Europe, because the magnitude of the economic costs of independence would to a very large extent depend on this. The final section summarizes the main conclusions of the study.

For easier reading, the main text contains only essential bibliographical references. Any reader interested in knowing the main sources consulted in this work or in exploring the subject in more detail can check the bibliographical appendix, which lists the most important articles and books used for the various sections in the study. To encourage the reading of this essay and make it as accessible as possible, each of the sections is self contained so that their arguments can be followed without having to necessarily read the other sections.

## **2. The importance of economic factors in fostering the pro-independence sentiment in Catalonia**

As mentioned in the introduction, the aim of this study is to examine the economic foundations of Catalan independence as stated by those who seek or support the secession of that autonomous region. In essence, they argue: 1) that Catalonia is economically oppressed by the rest of Spain, and 2) that independence would free it from this oppression and allow Catalan citizens to achieve a haven of well-being presently denied to them by belonging to Spain.

Naturally there are other factors not strictly economic behind the rise in pro-independence sentiment in Catalonia in recent years. Various emotional and political factors undoubtedly play a part. Sentiments are not unrelated to economic factors, though, because few things inflame more the emotions of such a hardworking people as Catalans as the thought, however unfounded, that someone is stealing their wallet or arresting their economic progress. With regard to political factors, the most important is the fact that the Catalan government has been controlled since 2003 by political coalitions increasingly dominated by factions whose main goal is Catalan independence. Throughout Spain's history, Catalan separatism has aggressively challenged the government of the nation during periods of acute political or economic crisis.

Having said this, these coalitions have managed to hold onto power mainly because they have been able to convince most of Catalan society of the two above mentioned economic postulates. The first being that their living conditions have unduly worsened not because of the economic crisis which the whole country has suffered to a greater or lesser extent, or by the disastrous management of the regional Catalan governments, but because of the excessive withdrawal of resources to pay for the welfare of the rest of Spain. The second is that their standard of life would improve dramatically with independence. Although it may not appear so at first, the validity of one of these two propositions does not necessarily imply the veracity of the other. In other words the first might be true but the second false, or the first false and the second true, or both of them true. It may also be the case, as I believe and hope to show in this study, that both are false. It should be stressed that this study only examines the economic assumptions of the independence movement. It does not analyse other social or political dimensions which may advise against secession even if, contrary to what is maintained here, this was economically profitable for Catalonia. What this study aims to do is simply highlight the blatant fallacies of the economic arguments that pro-independence groups truculently throw out to justify the secession of Catalonia. Arguments, it should be noted, that have persuaded the majority of Catalan society.

The Leaders of *Convergència i Unió* (CiU) and *Ezquerra Republicana* (ER) have often linked economic factors to their pro-independence discourse. Indeed, the President of the Catalan government and several of his ministers have repeatedly stated how Spain economically oppresses Catalonia and that independence is the only option to maintain the welfare state in Catalonia. More recently they have prepared a list of economic grievances according to which "Madrid" owes Catalonia a huge sum of around 9 billion euros, half of which stem from an alleged breach of the ruling of Catalonia's Statute on

the public investment of the State in Catalonia. This claim that the State owes them money for public investment not made in Catalonia is surprising. The Catalan government knows perfectly well that the article of the Statute which requires that the central government invests in Catalonia a percentage of its public investment equivalent to the contribution of that autonomous region to Spanish GDP was amended by the Constitutional Court, with the amount of that investment being now dependent on national budgets approved by the Spanish parliament, so no debt whatsoever can be owed to Catalonia on this account. Claiming the payment of this non-existent debt can only be understood as an attempt to manipulate public opinion and inflame the passions of Catalan society encouraging it to think that Spain “is robbing them” money for investment, which actually does not exist and which in no case has been taken from them. In the same vein, practically every member of the Catalan government and the main leaders of ER have repeatedly exhibited the negative size of one of the many variants of the fiscal balance of Catalonia for proving both the plundering which according to them this region suffers and the economic potential of an independent Catalonia.

Based on the fallacies of fiscal plundering and huge tax revenues that independence would bring, Catalonia’s governing parties are looking to benefit from electoral gains that a rise in pro-independence sentiment could bring them, while at the same time obtaining more resources and funding in order to soften as much as possible the fiscal adjustments that this region needs to do. In this respect it must be said that Catalonia’s budgetary problems, appreciably more serious than those of most other regions as it has made fewer deficit adjustments than others, is not due to any fiscal plundering or debt unpaid by “Madrid” or to any policy of re-centralisation of powers or contempt of the Catalan reality as pro-independence groups claim. As it will be shown below it is simply due to the relatively higher levels of public spending and regional debt than other regions.

For the purpose of this section it is important to state that Catalan secessionists have repeatedly cited the plundering to blame Spain for increases in the regional taxes and the hidden public debts accumulated by not paying their suppliers, not to mention the cuts in public investment and social spending carried out by the Catalan government. Encouraged by these assertions, widely disseminated by the Catalan media, many Catalan businesses and families have become convinced that their economic pains are not due to the lack of resources, especially severe in times of crisis, but rather to the contempt that Spanish governments have for Catalonia, diverting resources from there to other regions in the country. Likewise, most Catalan citizens do not blame successive Catalan governments for the particularly heavy tax increases they have had to endure but rather the Spanish government. It is therefore not surprising that persuaded by the ideas of secessionist politicians a significant part of Catalan society views independence, or at least the call for independence, as the only way to stop the adjustments and improve their living conditions. Given the persistent intensity and widespread dissemination of these proclamations, what is truly surprising and a source of hope for the future, is not that 40% and 60% of Catalans want independence, but rather that 60% or 40% do not want it.

It is difficult to overstate the strong influence of economic aspects in Catalan society’s drift towards secession. As fuel for the fire of independence, reference has occasionally been

made to alleged or actual restrictions on the language policy of the Catalan government imposed by Madrid or appeals lodged against the Statute approved by the Catalan parliament and its subsequent repeal or revision by the Constitutional Court of part of its articles. However, if the majority of Catalan citizens who have switched to the pro-independence side in recent years were to be asked to list the inconveniences that they have suffered in using Catalan, or the statutory articles whose repeal or amendment turned them towards pro-independence, it is extremely unlikely that they would be able to provide precise answers. On the other hand, it is safe to say that if these people were to be asked for their reasons for calling for independence their replies would be basically economic in nature. In my opinion, part of the rise in the pro-independence movement in Catalonia, difficult to quantify but very significant, based on those citizens who stated in the surveys that they were in favour of independence prior to the economic crisis of 2008 and those who do so today, is due to the widespread belief that their economic woes are down to the "Spanish State" and that independence would enable them to improve their living conditions.

I also believe that it would not be untrue to say that most Catalans think that merely requesting independence and holding a referendum, even if it was non-binding, would give them access to more fiscal resources. As previously stated, in recent years Catalan citizens have become convinced that they pay higher taxes and suffer greater public spending cuts and non-payment by their administrations than citizens and businesses elsewhere in Spain because they are constitutionally bound to transfer an excessive amount of resources to the rest of the country. Consequently, many Catalans believe that simply negotiating with the alternative of independence on the table would encourage amendment of the articles of the Constitution or the organic laws necessary to substantially increase the fiscal resources available to them.

In any case, the deterioration in the living conditions of Catalans since 2008, slightly less than that suffered generally by the rest of Spaniards as will be shown later, and their conviction that this deterioration is mostly attributable to the government of Spain cannot solely explain the rise in pro-independence. In most countries with federal structures like Spain there are fiscal tensions between regions, and between the regions and the central government, and there are always regions that justly or unjustly consider that they are particularly poorly treated fiscally. This is often the case with the richest regions whose citizens contribute relatively more than those from other regions to state coffers and receive from them relatively fewer resources than the others. But the complaints and resulting tensions generated by those situations are not channelled in any country along secessionist paths unless there are parties with significant levels of power that have as a short or long-term objective the independence of the regional state in question. These parties shamelessly exploit fiscal and financial tensions, particularly acute in times of crisis, to hastily advance their secessionist project. The existence of these parties and factions in Catalonia is undeniable and so is the fact that there are Catalans who want independence even if it comes at a high economic cost. Politicians who represent these Catalans should be honest and rigorous with the data and not manipulate or misinterpret them, much less hide any significant short and long-term losses in welfare brought about by their project. However, Catalan citizens who demand independence because they honestly believe that they are being suffocated

economically and that things would be much better outside than inside Spain, should be encouraged to reconsider the economic grounds on which their shift towards independence is based. This study is particularly aimed at these Catalans more than any other group of Spaniards.

Nothing of the above implies that Catalan society can be easily manipulated. Indeed, this study is being conducted because its author is convinced of the opposite, is actually the truth. When a society as rich as Catalonia faces a severe economic crisis which jeopardises its prosperity it is normal to feel inclined to consider the redistribution mechanisms of the State as the cause of its crisis and their reformulation as the solution to it. In these circumstances, sayings such as “Spain robs us” or “we would be better outside than inside of Spain”, repeated *ad nauseam* by the Catalan government, reaffirm these instinctive reactions to the crisis. The coincidence between what our instincts tell us and official explanations which distort reality tell us exerts a powerful fascination over the mind of individuals. For example, our instincts tell us that the sun rises in the east and sets in the west, and any explanation questioning the Ptolemaic view of reality was long considered heretical nonsense. Only knowledge of basic theoretical physics could allow overcoming our instincts and realising that, contrary to appearances, it is the earth that revolves around the sun and not vice versa. As with physics, economic reality is not always easily understood by those who are not trained in the basic theoretical knowledge. Unfortunately, the economic knowledge required to thoroughly understanding the fiscal treatment of Catalonia and the costs of its independence are relatively complex and not available even to professional economists unless they have made the necessary effort to acquire it. When complexity and rigour come face-to-face with popular saying, the battle for public opinion is always won by the saying, at least in the short term, particularly if those who coin the saying have a virtual monopoly of the media in that region. This has happened with the false economic postulates of pro-independence. But increasingly these fallacies have to confront more rigorous and better founded alternative versions which sooner or later will penetrate society and erode their power of attraction to the general public.

It must be noted, however, that it is not easy to shake beliefs so firmly entrenched today in Catalonia, such as “Spain robs us” or that “*independence is much more profitable than carrying on as we are*”. As I hope to show, these pro-independence economic assumptions are founded on quicksand and sink under the weight of reason and evidence. Of course, as previously noted, an intellectual effort must be made to apply reason and assimilate the evidence. Moreover these beliefs of many Catalans, who mistakenly attribute the cause of their economic problems to belonging to Spain and their remedy to abandon it, suggest an easy, almost automatic way out of the crisis. So it won't be easy to shake them. Because if those beliefs are not true, there is no other alternative than the painful path of reforms and adjustments needed to bring spending and public debt down to sustainable levels. It is well known that it is not easy for human nature to accept arguments and evidence that frustrate hope. Neither it is to abandon simple mono-causal explanations of the crisis and automatic and painless solutions for complex explanations and therapies with varying degrees of sacrifice.

Moreover, these beliefs have been formed over a long period of time based on unilateral and wrong interpretations of Catalan economic reality. In other words, the

everyday interpretation of important economic data such as Catalonia's fiscal balances, the territorial distribution of public investment from central government, the rescuing of bankrupt saving banks, aid from the regional liquidity fund or the fund to pay suppliers, deficit targets set for the autonomous regions, etc. until very recently reached Catalan citizens almost exclusively from separatist platforms. The same has happened with descriptions of what a future independent Catalonia can expect. Analyses and interpretations of from non separatist spheres have until recently been scarce, particularly those from Spain's central government. That is perhaps why analyses and interpretations opposed to the pro-independence view on the economic benefits of secession that have proliferated lately are systematically labelled as exaggerations of self-interest groups hurled out to frighten Catalan society and prevent their right to freely decide their future. This stigma that secessionist circles attribute to any study or opinion that questions the plundering or the idyllic future of an independent Catalonia should be reflected upon by Catalan society. It should not be unquestionably accepted that anyone who says that the mere exercise of the right to decide, let alone the eventual independence of Catalonia, would produce very painful economic consequences, does so directed by the government of Spain or in its own interests to preserve the status quo. Not everything that the central government or those who would prefer Catalonia within Spain say is necessarily false. These analyses should not be disdainfully ignored claiming that their intention is to groundlessly frighten Catalans in order to subdue their desire to freely decide their future. It should not be thought either that any study that asserts that such decisions would involve no more than a minor and rapidly fleeting economic pain must always be scientifically pure, objective and, above all, necessarily true.

### **3. The fiscal crisis of Spain and Catalonia**

To fully understand the efforts made by Catalan secessionists to divulge the economic benefits of independence and their acceptance by the majority of Catalan society, one must firstly consider two exceptional phenomena in Spain's economic development over the past 20 years. The first is that from 1994 (the year when the early nineties crisis ended) to 2007 Spain enjoyed the longest and strongest span of economic growth in its recent history. The second is that since 2008 the country has been immersed in the severest and longest recession since, at least, the post-Civil War years.

Although, naturally, despite the crisis, current income levels are higher than those of the 1990s, that sequence of fast and strong growth followed by an equally intense and prolonged recession has had very harmful political consequences for Spain. One of these consequences, in my view, is the emergence of secessionism in political factions which had previously not considered it and the subsequent rise in pro-independence sentiment in Catalan society. To grasp this contention, it is necessary to analyse in detail both the influence of economic expansion on public revenues and spending, particularly on those of the regions, as well as the devastating impact of the subsequent crisis on the public revenues of all areas of government. The basic relationship between the economic phenomena highlighted, fast and prolonged growth followed by a sudden and long-lasting recession, and the rise in pro-independence sentiment are summarised below.

### 3.1. Fiscal consequences of the boom and the economic crisis

The rapid pace of economic expansion after the adoption of the euro led to even faster growth of the public revenues of all public administrations and those of regions in particular. The revenue of regional governments grew faster than that of the central government because most of the taxes generated by the property boom were collected by the regions and because successive regional financing agreements transferred an increasing amount of resources from central government to those regional public administrations. This was possible because the big cut in interest rates and strong job creation through the expansion period drastically reduced the public spending of central government on interest payments and unemployment during those years, while rapid GDP and employment growth caused public revenues to soar. This reduced central government deficit and debt by more than expected and helped to meet the demand of regions for additional resources. Consequently, the strong revenue growth of all public administrations generated even faster growth in non-financial public spending, i.e. public spending available for financing investments, health, education and other public activities. So, all public administrations embarked on ambitious public investment projects, which additionally benefited from abundant European funds, and significantly expanded their education and health programmes and all types of consumptive and representative current spending. Growth in public spending and in the political and administrative bureaucracy that supports it both in the regions and the rest of the public administrations was based on the tacit assumption of its irreversibility or, rather, the sustainability of the public revenue that financed it.

The abrupt halt in economic expansion in 2008 led to the collapse of public revenues, a collapse which due to the nature of Spain's regional financing system had a delayed effect on regions' revenues. All public administrations faced a marked drop in public revenue with a very rigid spending structure. Central government had to face increased spending on pensions, unemployment benefits and interest on public debt with falling public receipts. The regions, depending on their level of indebtedness, also recorded a significant increase in the interest burden and suddenly found themselves without the necessary public revenue to meet their spending needs, particularly on education and health whose service levels were considered immovable downward. Not all regions had increased public spending during the boom at the same rate and not all reacted in the same way during the initial phases of the crisis. Catalonia was one of the regions that most increased its level of spending and public debt during the boom and among the slowest to react and least vigorously make adjustments in response to the crisis. This was possible through significant increases of its already high level of indebtedness. However, the crisis came with (in fact this was one of its driving forces) a huge increase in the cost of financing the public debt, leading to a sharp rise in the interest burden of the most indebted regions such as Catalonia. This increase in the cost of servicing the debt has absorbed a growing part of the diminishing public revenues available to finance social spending and other operating costs of the regions governments putting pressure on the economic and social situation in the corresponding territories.

These are the economic circumstances surrounding both the Catalan governments' attempts to improve as much as possible the fiscal treatment that they received from the regional financing system (something that they got in the period 2010-2014) and their

drift towards secession. The reason for the latter is that the funding pressures to which Catalonia has been and continues to be subjected are of such magnitude that they cannot be resolved through gradual improvements or even substantial changes of the regional financing system. For the first time in many years spending on culture and education, which in Catalonia represent a greater proportion of their GDP than in most other regions, are facing the need for significant cuts. It is therefore not surprising that the pro-independence movement is particularly strong on TV channels, radio stations and other media, as well as in universities and education groups, all of whom depend on the fiscal resources of the Catalan government<sup>1</sup>.

It should be emphasized that although the public finance situation in Catalonia, as well as in other autonomous region such as Castilla-La Mancha or Valencia, is particularly serious, in general terms it is similar to other regions and public administrations. Spain as a whole, as previously highlighted, has been immersed in a fiscal crisis caused by insufficient public revenue to meet public spending levels which are difficult to reduce, at least in the short term. Rising unemployment and increased interest on public debt, due both to higher public debt and the rise in the risk premium, combined with growing imbalances in the pension system associated with falling employment, the retirement of workers with increasingly higher pensions than average and the ageing population. In other words, Spain as a whole, more in some places than in others, has been consuming goods and public resources substantially above its public revenue generation possibilities. The country faces the problem of implementing major economic and tax reforms, and public expenditure cuts, which would gradually help to reduce the public deficit and at least stabilise public debt in proportion to the size of the economy. A problem that certainly occurs with more or less virulence in some territories than others depending on their pre and post-crisis fiscal policies, but a problem which cannot be attributed to the plundering of one region by others, and which will not only not be resolved but would be infinitely complicated by leaving Spain. It is an undeniable fact that the crisis has made reductions in public spending inevitable for all public administrations, with the resulting damage to the beneficiaries of this spending. A cut so drastic it was hitherto unseen in either Catalonia or the rest of Spain, just like the huge prolonged growth period that the country experienced during the 15 years prior to the crisis was equally exceptional. The harmful effects of these spending cuts have been exacerbated by those caused by the dramatic fall in economic activity in the private sector.

It must be repeated that the economic and fiscal crisis in Catalonia is a manifestation of the economic and fiscal crisis in Spain and has little or nothing to do with the regional financing system. In fact, as already stated and as outlined below, Catalonia improved somewhat its financing during the crisis, between 2009 and 2014, in relation to the previous situation. In any case, both before and, in particular, after 2009, Catalonia received more favourable fiscal treatment than some other autonomous regions whose

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<sup>1</sup> An example of this is public expenditure on regional TV. In 2013, the Catalan Corporation of Audiovisual Media (Corporació Catalana de Mitjans Audiovisuals - CCMA) received 225 million euros, compared to the subsidy of 168 in Andalusia, 94 in Galicia, 71 in Madrid, 68 in Valencia (before the recent labour force adjustment plan) and 105 in the Basque Country. TV3 has 2,400 employees, more than twice that of Canal Sur and the Basque station EitB. In 2014, according to the budget announced by the Catalan government, the CCMA will receive 241.74 million of euros in subsidies, of which 209 million will be for TV3.

deficit and public debt was not as excessive as that in Catalonia. On the other hand, the regions with the “concert” (the special fiscal agreement), Navarre in particular, could not prevent the accumulation of notable budget deficits despite their fiscal privileges. In other words, when a country suffers a crisis of the magnitude of the one suffered by Spain since 2008, after 14 years of strong GDP and public spending growth, any public administration (central, regional or local) will have far less public revenue than required to keep intact its welfare state. As mentioned earlier, the severity of economic hardship varies from region to region depending on how much their spending and debt grew before the crisis and during the initial stages of it, the dependence of their income on the property boom and how they handled the taxes over which they have exclusive control.

To illustrate the above arguments, the relevant fiscal figures of all Spanish public administrations are set below followed by the corresponding data for Catalonia.

**Table 1. Accounts of Spanish Public Administrations**  
(As % of GDP)

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Public Revenue</b>	41.12	36.89	35.08	36.69	36.17	37.12
<b>Public Spending</b>	39.15	41.4	45.2	46.31	45.73	47.76
<b>Public Deficit a) (-)</b>	1.97	-4.51	-11.12	-9.61	-9.56	-10.55
<b>Public Deficit b) (-)</b>	1.97	-4.51	-11.12	-9.61	-9.07	-6.84
<b>Public Debt</b>	36.3	40.2	54.0	61.7	70.9	86.0

**Source:** National Audit Office and Eurostat.

**Notes:** Deficit b) is calculated excluding aid to banks.

The above table clearly shows the devastating effects of the crisis on public finances. Between the last year of the growth phase (2007) and the outbreak of the crisis during 2008 and 2009 the total income of public administrations collapsed by a staggering six percentage points of GDP, an unheard development in practically any other Western country. Public spending increased no less dramatically, also by six GDP points, especially because of increased spending on unemployment, pensions and interest on debt as well as spending on public administration personnel. To varying degrees this is the problem that any public administration faces in Spain: public revenue obtained from the current taxation structure is insufficient to finance current public spending levels. Table 2 shows the trends in the main public spending items since 2007, revealing the big explosion in social security payments, in the form of unemployment benefits and pensions, as well as in interest on public debt.

**Table 2. Main spending items of public administrations**  
(As % of GDP)

	<b>2007</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Social security payments</b>	11.65	14.68	15.46	15.59	16.30
<b>Interest on debt</b>	1.61	1.77	1.95	2.52	3.05
<b>Spending on personnel</b>	10.24	12.01	12.02	11.82	11.20

**Source:** National Audit Office

### 3.2. The fiscal crisis of Catalonia

The data for Catalonia are shown below in table 3, comparing them to the total figures for all the regions, those of the central government and those of the public administrations as a whole.

**Table 3. Deficit and Debt: Catalonia and all autonomous regions**  
(As % of corresponding GDP)

	2007	2010	2011	2012	2013 <sup>(i)</sup>
<b>Catalonia Deficit a) (-)</b>	-0.60	-4.59	-4.12	-2.21	-2.00
Debt	8.00	17.80	21.70	25.80	27.00
<b>All regions Deficit a) (-)</b>	-0.24	-3.24	-3.41	-1.84	-1.40
Debt	5.80	11.60	13.07	18.00	20.00
<b>Central government Deficit (-)</b>	2.21	-5.69	-5.20	-4.24	-5.3
Debt	28.50	50.90	57.80	68.00	80.00
<b>All public admin. Deficit b) (-)</b>	1.97	-9.61	-9.07	-6.84	-6.8
Debt	36.30	61.70	70.09	86.00	96

Source: Bank of Spain and Ministry of Finance

(i) Forecasts

a) Before making final settlements

b) No aid for banks

Table 3 bears out the arguments outlined in the above section. Firstly, Catalonia faced the crisis with a level of public debt more than 50% higher than the average of all regions. The excess of Catalan debt over the rest of autonomous regions would in fact be even higher than that indicated in table 3 because all the regions in the table include Catalan debt. Making the appropriate correction, Catalan debt as a percentage of its GDP would almost be 75% higher than the average ratio for the rest of the autonomous regions at the time. This high indebtedness was basically due to the sharp increase in public spending in Catalonia during the first tripartite government. Since the outbreak of the crisis, Catalonia's deficit has continued to be much higher than those of other regions (once again, comparison with all autonomous regions underestimates the relative excess of the Catalan deficit). Since then Catalan public debt level continued to grow substantially and to be far higher than those of the majority of other regions. The data in table 3 show that of all the autonomous regions Catalonia has been by far the biggest contributor to the growth in the deficit and debt of public administrations during the crisis. In other words, if every region had had a fiscal imbalance and debt in proportion to its GDP like Catalonia, Spain's total deficit and debt would be even higher than it is currently.

In addition, Catalonia, far more than any other region, has made necessary the issuance of public debt by the central government to meet the growth in debt, interest payments and other financing needs of the regions whose debt was not accepted by the market. Indeed, in 2012, the Regional Liquidity Fund (FLA) was created to meet these needs of the regions. Catalonia absorbed 40.05% of the total resources of the FLA in 2012 (16.64 billion euros) and 43.7% of the total resources issued by that fund in 2013 (23.37 billion euros). Catalonia's receipt of FLA resources is far higher than its percentage contribution to Spanish GDP, well over double what it would be if the fund had been

used in proportion to GDP by all regions, which clearly indicates the delicate financial situation of Catalonia compared to the regions on average.

It is important to point out the vital contribution of the FLA to enable Catalonia to reach such high public deficit levels in relation to other autonomous regions as recorded in 2012 and 2013. During these two years the FLA, apart from covering debt maturities, made it possible to finance the Catalan deficit for respective amounts of 1% and 0.7% of the GDP of that region. Moreover, FLA loans to Catalonia allowed a considerable saving on interest payments in 2012 and 2013 to this region, as these were ten-year loans with a two-year grace period and a far lower interest rate than market issues with the Catalan government rating. Regions that use the FLA agree to make a series of adjustments in their public revenues and spending to hit the deficit targets set in the Stability Plan, with the payment of the resources depending, in principle, on complying with that plan. However, in 2012 Catalonia finished the year with a deficit of more than 2% of its GDP when the target set was 1.5%. In 2013, Catalonia was allowed to set a deficit target of 1.58% of its GDP, while most of the regions had a target of 1.3%. As of October 2013, the deficit was 1.7% of GDP, which almost certainly implies that the target was not hit because in the final months there are proportionally more payments and less revenue than the previous months. This was recently acknowledged by the Catalan Minister of Finance.

As will be shown below, the continued high level of public deficit and resulting growth in the already excessive public debt in Catalonia is worrying. Yet, leaving this aside, what is remarkable is the surprising contrast between the support that, compared to the rest of Spain Catalonia receives from the Spanish government to soften the impact of its fiscal adjustment, and the furious criticism of that government by Catalan political authorities. What is particularly striking during this year and last, in which Catalonia has registered a significantly higher budget deficit than the rest of the regions and been able to finance that deficit and refinance the maturities of its sizeable debt thanks to the FLA, are the growing cries of "Spain robs us", cries led and vigorously encouraged by the Catalan government.

The suppliers payment fund (FPP) has also helped to substantially alleviate the efforts of the autonomous region of Catalonia, just like those of the other regions, as well as those of the local councils of Catalonia and the rest of Spain. The suppliers' payment fund is designed to "do away with" the commercial debt contracted by the autonomous regions and local authorities with suppliers of goods and services to those administrations. One difference with regard to the FLA is that this is limited to the regions while the suppliers plan is also open to local councils. The other is that the initiative for joining the FLA rests solely with the government of the region while with the FPP if a company which has any outstanding invoices in the autonomous region has not been included in the list sent by the region to Spanish Ministry of Finance, the company may request its inclusion and subsequent payment to the Ministry. The FPP has had three phases. The first in 2012 for invoices prior to 1-1-2012, the second on 22-2-2013 for invoices prior to 1-1-2012 that had not been included in phase 1 and the third and final phase, according to the Ministry of Finance, in the second half of 2013 for invoices entered into the accounts up to May 2013. Total aid to regional administrations provided through the FPP came to almost 30 billion euros, of which the autonomous region of Catalonia has received around 7 billion euros, far more than what it would be

entitled to in relation to its contribution to Spanish GDP, as is the case with the FLA. Table 4 summarises all figures mentioned on the FLA and the FPP.

**Table 4. Regional Liquidity Fund (FLA) and Suppliers Payment Fund (FPP)**  
(millions of euros)

	<u>FLA resources absorbed</u>		<u>FPP resources absorbed</u>	
	2012	2013 <sup>(a)</sup>	2012	2013 <sup>(a)</sup>
<b>Catalonia region</b>	6,664.8	10,050.6	2,020.2	3,695.0
<b>(% Total)</b>	40.05	43.7		
<b>Total Funds</b>	16,638.4	23,000	17,718.6	11,628.7

**Source:** Ministry of Finance

**Note:** For FPP, % is not indicated as this fund has also been used by local authorities

**(a)** 2013 figures are provisional

Both the FLA and FPP are special instruments to help regional public administrations cushion the impact of the adjustments and alleviate the social costs imposed by the crisis. These are smart, good economic policy initiatives which deserve support and warm congratulations, especially by those who have most benefited from them, with the region of Catalonia being by far the most prominent beneficiary. However, official statements from the Catalan government, by its President and its Minister for Economy and Finance, have been inexplicably critical. The President declared that Catalonia is entitled to any loan they request from the FLA because, according to him, they are simply recovering money which belongs to the Catalans. The economic nonsense of this statement should be obvious. To fund that loan the Kingdom of Spain has had to issue additional debt whose burden will fall proportionally on all Spaniards while residents in Catalonia benefit from this debt in far greater proportion than residents in the rest of Spain.

For his part, the Regional Minister for Economy and Finance has stated that Catalonia is entitled to consume whatever it needs from the FLA for being a net contributor to central government, also asserting that if the government of Spain had allowed the suspension of payments and subsequent restructuring of Catalonia's debt it would have had very negative consequences for Spain's debt. Regarding the first assertion, the most generous thing that can be said is that this is a glaring *non sequitur*. An individual or a company which through the taxes that they pay brings in more revenue to the State than the benefits they receive from State public spending may have contracted higher debts than the net value of their assets, i.e. debts whose interest and repayment they cannot be covered with their income or by selling their assets. It is also evidently nonsensical to consider that being a net contributor gives an individual or a company a right to be rescued by the government. If Catalonia has not gone bankrupt, it is because of the implementation of the FLA, which has given it the necessary resources to avoid restructuring. Whether it is a net contributor or not to central government is completely irrelevant for these purposes. Bearing in mind that most other regions, whether net contributors or not, did not have a debt as excessive as Catalonia's, the massive use of the FLA by this region is indicative of the huge fiscal imbalances that have been accumulated there.

As for the second argument, it was undoubtedly true in 2012, year in which there

was massive capital flight from both Spanish public and private debt, which exceeded 20% of Spain's GDP. But the cost for Spain of letting a region as important as Catalonia go bankrupt has been reduced since then and would be far less in 2014 and even lower in 2015. In any case, none of this should prevent anybody from recognising that the design and implementation of the FLA and FPP are among the best economic policy decisions taken by the Spanish government since the crisis.

The above data show that between 2012 and 2013, Catalonia received central government loans, obtained by issuing debt by the Kingdom of Spain, for around 23 billion euros, loans which will continue to increase in 2014. These vast resources, around 15% of Catalan GDP, together with tolerance towards deviations from public deficit targets in Catalonia, have made it possible to soften the adjustments and reforms necessary to position the public accounts and debt of those regions at sustainable levels. The access to these resources and the tolerance for higher deficits have limited the fall in Catalonia's GDP with respect to what would have happened without this support, while also avoiding the political costs to the Catalan government of having to make a tougher fiscal adjustment. It is worth pointing out that the smaller fiscal adjustment of the Catalan government compared to other regions since the start of the crisis, particularly compared to those that have a similar level of over-indebtedness, has resulted in a lower cumulative fall in GDP in Catalonia than the rest of Spain, as shown in table 5.

**Table 5. Cumulative fall in GDP between 2008 and 2013 (in %)**

<b>Spain</b>	-7.5	<b>Valencian Region</b>	-11.0
<b>Catalonia</b>	-6.7	<b>Extremadura</b>	-10.0
<b>Andalusia</b>	-10.3	<b>Galicia</b>	-6.4
<b>Aragon</b>	-7.6	<b>Madrid</b>	-5.3
<b>Asturias</b>	-11.4	<b>Murcia</b>	-4.0
<b>Balearic Islands</b>	-3.2	<b>Navarre</b>	-6.0
<b>Cantabria</b>	-4,5	<b>Basque Country</b>	-6.2
<b>Castilla-León</b>	-6.8	<b>La Rioja</b>	-8.0
<b>Castile-La Mancha</b>	-12.7		

**Source:** Bulletin of Inflation and Macroeconomic Analysis. Instituto Flores de Lemus research centre. November 2013.

**Notes:** % of cumulative fall in GDP between second quarter of 2008 and second quarter of 2013

Catalonia has therefore cushioned the impact of the crisis in relation to other regions through higher public deficits and the resulting increase in its debt. In the early years of the crisis this was possible by issuing Catalan debt in the market; and during the last two years because the Spanish government allowed it to incur higher deficits than other regions and gave it the necessary resources to finance these deficits and repay debt maturities falling due in this period.

Increasing the public deficit and debt may reduce the decline in GDP for a while but sooner or later it will take its toll. This is because interest on debt will erode the spending power of regions on public investment and other non-financial goods and services. What's more, the lack of fiscal adjustment reforms and effective measures make debt growth unsustainable and will continue to block the Catalan government's access to financial markets. The political consequence of all this is that the Catalan

government will continue to insist on independence, not solely based on conviction, but also to put pressures on the Spanish government to continue counting on its support to avoid fiscal adjustments required to restructure its tough financial situation. It remains to be seen whether Catalan citizens will glimpse, amid the thick smog created by the debate on the referendum and independence demands, that it is the poor management of its regional government and inability to make the undoubtedly difficult adjustments required by its delicate financial situation what is truly robbing them of their economic future.

#### **4. The plundering myth and the reality of the fiscal treatment of Catalonia**

The fiscal abuse of Catalonia by the Spanish state, or more crudely put fiscal plundering or “Spain robs us”, are sayings that despite having no real basis have had powerful persuasive effects on Catalan society. Before analysing this fallacy, a few comments should be made. Firstly, in any fiscally decentralised country, and Spain is one of the countries with the greatest degree of fiscal decentralisation in the world, no system of regional financing can be established without causing frictions between the regions. Of necessity, there will always be regions that justly or unjustly consider themselves to be fiscally mistreated with respect to others. The fiscal system of regional financing in place in Spain is by no means perfect and in any case complex and difficult to understand for citizens and even for professional economists that have not studied it properly. It is therefore undeniably a system to which changes should be made to make it more efficient and transparent, changes which should ideally be implemented with the mandatory review of the system for the period 2015-2019. These changes will inevitably improve the financing of some territories at the expense of others. In the past, the central State provided discretionary transfers so that those regions negatively affected by alterations in the system saw their resources remain unchanged. Today this is no longer possible as the Central State does not have available resources. Consequently, future changes to the system will have to be introduced gradually as there is no way to compensate those regions that lose resources. Therefore no radical change can be made in the short-term financing of some or other regions. By radical here it should be understood changes that improve (or worsen) the resources that any autonomous region receives by around 1% of their regional GDP<sup>2</sup>. In any case, if system changes are always inherently complicated, it will become an impossible task if one of the regions tries to negotiate with approaches such as “this is what I want or I’m leaving Spain”.

Secondly, it will be shown that the regional financing system does not treat Catalonia badly. Many other regions, especially those of a similar per capita income or economic size, are treated equally and some quite a lot worse. Any conceivable improvement in the system will therefore not provide Catalonia significant amounts to enable it to eliminate or even significantly reduce its current fiscal deficit, let alone reduce its debt to sustainable levels. That is one reason, among others, for the creative advertising behind the emergence of the plundering myth and the magic solution of independence to obtain resources equivalent to 8% or 9% of Catalonia GDP. According to pro-independence groups this is the figure resulting from what Catalonia contributes

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<sup>2</sup> The autonomous region of Valencia is perhaps the only exception

to the Spanish Central State and what it receives from it. As already mentioned, when pro-independence sentiments break out in a federal country it irreparably complicates the solution of the always delicate balances of the regional financing system. The pro-independence assumption is that any system that does not give to Catalonia the same amount that Catalonia contributes to Spain is plundering Catalonia for the corresponding difference. So Catalans separatists criticise any increase in spending or tax cuts made by any region, in particular those that have a positive fiscal balance, as if they were an extravagance at the expense of Catalan citizens and businesses. More generally, they criticise the spending and taxation decisions of central government and other regions, erroneously believing that these decisions are the cause of the allegedly high deficit of the fiscal balance of Catalonia and the source of its economic problems. As previously stated, the serious over-indebtedness and high budget deficit problems in Catalonia will not be resolved with any feasible change of the regional financial system, which would at best give them additional fiscal resources of around 0.5% of its GDP. It is therefore not surprising that Catalan nationalism has gone from looking for improvements within the common regional financing system to requesting the special fiscal agreement found in the Basque regions and Navarra, and then as even this would fall short in proportion to its needs and aspirations, to subsequently demanding independence. What more than one Catalan politician really want from all this is to have the necessary fiscal resources to return to the public spending structure prior to the crisis which is unfortunately impossible for both Catalonia and the rest of Spain.

Thirdly, and although this will be looked at again in the following section, it is worth highlighting here a logical mistake in the pro-independence assumptions on Catalonia's fiscal balance. The mistake consists in assuming that the fiscal dividend of the independence of Catalonia is the negative of its fiscal deficit balance.

Leaving aside the fact that the fiscal balance figures that they usually manage are neither well calculated nor the correct one for these purposes, it is a mistake to think that the fiscal contribution of Catalans to the Central State is an invariable amount completely unrelated to their belonging to the nation and all the various types of redistribution mechanisms that operate within it. Catalonia benefits enormously from belonging to Spain, as shown by the impressive growth in its GDP per capita which between 1978 and 2009, well above that of the most advanced countries in Europe, and at the end of that final year exceeded Germany, the UK, France and Italy, and the average GDP per capita of the EU-15. Not to mention that its GDP per capita is well above that of the rest of Spain by approximately 19% (see table 5 in the in the next section for these data). If within Spain Catalonia has managed to obtain a higher per capita level of income, not just compared to the rest of Spain but to the major European countries, it is reasonable to think that outside Spain things would be worse. In other words, the tax revenues of an independent Catalonia would be substantially less than its revenue today because in all likelihood its GDP would dramatically come down at least during the initial stages of independence. Furthermore, public spending in an independent Catalonia would be far higher than the current spending by the Central State in Catalonia which is currently used to calculate the fiscal balance. Spending on national public goods required by the constitution of a State (defence, justice, foreign affairs, etc.) is subject to economies of scale, so the smaller the economic size of the State the higher that expenditure in proportion to GDP. Public spending would in fact be far

higher because the new Catalan state would have a much higher interest and debt levels and because the economic crisis caused by independence would trigger further unemployment spending. In any case, if Catalonia contributes more tax revenues to the Central State than what this State spends in Catalonia it is because Catalonia benefits from belonging to Spain more than the regions that have a surplus or a lower fiscal deficit than Catalonia. Therefore having a fiscal balance deficit is not an indicator of plundering but simply that the territory in question has a higher per capita income than the rest of the country.

Other criticisms from secessionist centres, citing the persistent fiscal deficit over the last ten to twenty years, point out the inefficiency of the regional financing system to reduce the surplus of the fiscal balance of the poorest or least wealthy regions and therefore ask for a reduction in contributions to interregional solidarity. Likewise, to demonstrate the alleged fiscal abuse of Catalonia, it has been argued that its fiscal balance deficit is higher than that of other regions around the world with a similar per capita income, such as Bavaria or Massachusetts or certain states in Canada or Australia. As to the first criticism, one of the determining factors of differences in the fiscal balances of a country's wealthiest and poorest regions is the relative inequality of per capita income between its regions. Hence, if this inequality persists so too will the surplus and deficit amounts of the regional fiscal balances. The persistence of inequality in the per capita income between regions has little to do with the regional financing system and a lot to do with the sharp fall in interregional migration flows in Spain in recent decades. As for the comparison with other countries, apart from existing differences in the relative degree of inequality of regional per capita income between those countries and Spain, the relative size of the regional welfare state and the progressivity of the taxation system must be considered too. Leaving aside the fact that the differences between the Catalan fiscal balance and those of the foreign regions mentioned with a similar per capita income is not significant<sup>3</sup>, comparisons make no sense if, as is the case, the regional inequality in per capita income or the size of the welfare state or progressivity of the tax structure are bigger in Spain than in countries where those regions are located. Furthermore, as will be seen below, the fiscal balance is not the appropriate instrument for measuring the fiscal treatment of a region by the system of regional financing.

#### **4.1. The fiscal balances of Catalonia**

Indeed, the fiscal balance is not the right indicator to determine whether the financing system provides a particular region with sufficient fiscal resources so that the said region can finance its spending in equal conditions as all the others. Catalan separatists confuse fiscal treatment with the fiscal balance and they make the extent of fiscal abuse proportional to the size of the deficit of the fiscal balance. However, these are two separate concepts. One region with a fiscal surplus may be mistreated fiscally and another with a fiscal deficit may not, and there may also be differences in the fiscal treatment of two regions with an identical fiscal balance. To understand this, it may suffice to show for now that

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<sup>3</sup> See De la Fuente (2012) and De la Fuente (2014).

increased public investment by the central government in an autonomous region reduces the fiscal balance but does not provide the fiscal resources that said region can use to finance its delegated spending on health and education services, which are the main items of expenditure covered by the regional financing system. Naturally, changes in the financing system alter the fiscal balances of the regions, but so do many other economic forces so that it may be misleading to use them as indicators of sufficient or insufficient regional financing, i.e., as indicators of the fiscal treatment which the region in question receives from the regional financing system.

The fiscal balance of a region is an instrument for measuring the relationship between the contribution made by citizens and businesses of the region to central government revenue (State and social security) and the public spending by said central government in that region. A comparison of the fiscal balances of the various autonomous regions provides an approximation of the redistributive fiscal effects between regions of central government revenue and public spending policies. The bulk of these redistributive effects are accounted for by the relative income of individuals and businesses in various regions and the progressivity of the tax structure from which central government revenue is generated. For this reason, for a given level of regional public spending, the fiscal balance deficits of regions with a higher per capita income than others will be wider in countries with a more progressive tax structure and greater per capita income inequality between the various regions.

It is worth pondering the meaning and scope of the fiscal balance data. Firstly, as previously pointed out, the fiscal balance of each region does not measure whether the funds provided by the regional financing system to said region are sufficient or insufficient to finance regional public goods. The fiscal balance includes central government revenue and spending which does not affect the ability to finance those public goods, for example, public investment by the State in that region or pension system spending and revenues. Fiscal balances, on the other hand, are expressed in proportion the GDP of the region while the appropriateness of the financing system is normally measured in per capita terms, i.e. in proportion to the population of that region. Secondly, the fiscal balance is an imperfect measurement instrument, more perhaps than many other economic tools, as the measurements obtained are the result of applying approximate assumptions on who ultimately bears the tax burden and benefits from public spending. With some taxes, for example income tax, the burden is clear and there are no doubts on the region to which the taxpayers belong; with VAT or corporation tax, the burden on citizens or businesses of one region or another is always debatable. The same applies to the regional allocation of the benefits of central government spending on public goods such as defence or the foreign service, whose beneficiaries are all Spanish citizens not only those from the region where the spending on personnel and other resources necessary for providing those public goods is concentrated. These conceptual difficulties of fiscal balances have led to their calculation by two different methods, the monetary flow and the burden-benefit, in order to assess as accurately as possible the impact of central government fiscal policies on different regions.

The monetary flow approach allocates the revenues collected by central government to the region where the taxable event occurs and expenditure by Central government to that region where the spending is located. The burden-benefit approach allocates central

government revenues to the territory where the individuals that bear the tax burden that generates that revenue reside, and attributes expenditure by the central government to the territory where the individuals that benefit from that expenditure reside. For example, if citizens from outside Catalonia purchase goods or services from a Catalan company, the monetary flow approach would allocate the revenue generated by the corresponding VAT to Catalonia, while the burden-benefit approach would distribute the allocation of this revenue between Catalonia and the region where the citizen that pays the VAT resides. For expenditure, if, for example, Ministry of Defence spending in Catalonia is for the maintenance of small barracks and there are no Spanish diplomatic service representatives in the region, the monetary flow approach would only calculate as central government expenditure in Catalonia the aforesaid maintenance in the former case and zero expenditure in the latter. The burden-benefit approach would calculate in both cases as central government expenditure in Catalonia the total expenditure by central government on Defence and the Foreign Service multiplied by the percentage that the Catalan population represents of Spain's population as a whole, because the benefits from that expenditure are proportional to the population.

The regional allocation of national public goods such as the costs of the Head of State, Parliament, Senate, Supreme Court, Constitutional Court, Ministry of Defence, Ministry of Foreign Affairs, etc., is undoubtedly the main source of differences between the resulting balances of applying one approach or the other. But substantial differences may also arise when there is significant public investment that affects different regions, such as the AVE Madrid-Barcelona (the high speed rail link). Based on the monetary flow approach, the lion's share of this expenditure would be allocated to the region with greater investment, i.e. with the higher number of kilometres of track and stations, so Aragon would be the region that benefits more substantially from this expenditure. However, based on the burden-benefit approach, regional allocation must be made in proportion to the origin or destination of travellers, who are the beneficiaries of that investment, so Madrid and Catalonia should show in their fiscal balances almost the total amount of expenditure accounted for by that public investment.

The burden-benefit approach is suitable for measuring the redistribution effects between regions of the budget activity of central government and, therefore, the only one that permits to identify the regions as net beneficiaries or contributors to that activity. Hence it is the only approach, with the numerous defects and limitations of the fiscal balance tool, which can provide an approximate measure of the contribution of a region to the fiscal solidarity of the State as a whole. The monetary flow approach is used, with the same limitations highlighted, to assess the effects of State public spending and revenues on the economic activity of each region. In this respect, it should be pointed out that the fact that the effects of State spending on the economic activity of a region are significant and that certain regions are the headquarters of more Central State institutions that provide national public goods and services than others, does not necessarily mean that this is positive for the growth potential of the region in question, but rather the opposite. Economic literature on the 19<sup>th</sup> century and during the 1960s industrial boom accurately contrasted the economic and business dynamism of Catalonia and the Basque Country with the backwardness of Madrid which was seen as just a town, "*full of politicians, priests and soldiers*". Then as now, what was important economically is not, for example, where the Ministry of Defence was located, but rather where military gear, ships, planes and

other vehicles as well as military material were built. To put it differently, Central State spending on a region may have indirect negative effects if it absorbs resources which have more productive alternative private uses. Furthermore, some central government activities can generate negative external economies such as storage of nuclear waste or prisons.

There is another complication in the calculation of fiscal balances. The fiscal balances calculated in accordance with either of the two approaches mentioned can be presented by neutralising or not neutralising the figures for the economic cycle. Thus strictly speaking there would be four fiscal yearly balances. The concept of cycle neutralisation involves correcting actual central government revenue and expenditure data for any given year as necessary to close the budget deficit. Thus if due to a collapse in public revenues because of an economic crisis, the central government and all regions incur in deficits, the subsequent variation in regional fiscal balances does not necessarily have to alter the redistributive impact of central government fiscal action. In other words, Catalonia's fiscal balance deficit can be reduced by the same amount as the decrease in the surpluses of other regions. To better understand the concept, let us assume that in any given year the Spanish economy grows at its potential and the central government deficit is zero, and then neutralised and non-neutralised fiscal balances would be the same. In another year in which the Spanish economy grows well below its potential and government deficit shoots up as a result of increased spending and a collapse in revenue caused by the recession, all the regional fiscal balances would be positive or the negative balances would be much lower than in the first case. Neutralisation consists in imputing to the regions the virtual increase in public revenue necessary to close the central state deficit, the imputation being made in proportion to their share of central government public revenue. It can also be neutralised by a virtual reduction of expenditure. Consequently, virtual fiscal balances are generated which should be similar to the actual fiscal balances in years of strong economic growth. As with the assumptions and methodologies for preparing the two types of fiscal balance, there are also different assumptions and methods to effect this neutralisation. For the purposes of this section, what is important is to grasp the meaning of neutralisation as well as the correct and wrong uses of the different fiscal balance estimates.

Fiscal balances have to be neutralised for the cycle, particularly during years when the central government records significant budget deficits, if they are to be correctly used to measure the redistributive fiscal effects between regions caused by State public revenue and expenditure policies. We have already seen how the fiscal balance that correctly measures these effects is that calculated by the burden-benefit method, so this balance would need to be neutralised to rightly measure those redistributive effects in times of crisis, and also in times of economic boom. More questionable is the usefulness of neutralising the fiscal balance based on the monetary flow approach as the effect of the fiscal action of central government on regional production activity, which is the only thing that can be measured according to this approach, may become more distorted neutralising than not neutralising (depends on the methodology used). What is complete nonsense is to use, as pro-independence politicians do, the fiscal balance calculated according to the monetary flow approach and neutralised as an indicator of plundering or as the fiscal dividend of independence. As previously seen, the fiscal balance calculated according to this approach does not reflect the contribution of the region to

interregional solidarity, much less if it is neutralised. Furthermore, the balance created in this way imputes a virtual revenue, provided by citizens and companies in Catalonia, which actually does not exist at that moment, so that the government in that region could not count on that revenue the day after independence. In fact, it could not count even on a significant part of tax revenue calculated by the balances without neutralising them, as this would be lost due to the drop in income caused by independence. It would also have to face far higher expenditure than that calculated in those balances because of the additional cost of building a new state and increased spending on unemployment benefits and higher interest on public debt caused by the economic crisis of independence. It is difficult to avoid the conclusion that Catalan pro-independence platforms systematically uses the monetary neutralised balance simply because it shows the highest deficit of all those possible.

To show the manipulation of fiscal balances by the Catalan government and pro-independence platforms it is convenient to submitting their data to the scrutiny of rigorous economic criteria. The Catalan government's study (2012) of Catalonia's fiscal balance summarises the balances for the 2006-2009 period. It is worth looking at 2009, because the deficit for that year, for one of the many fiscal balances, has been the most widely used by pro-independence politicians to provide figures on the plundering and fiscal dividend of independence, a balance, which for that fiscal balance variant is practically the same as that of 2010, which has just been published recently. The corrections and points made on fiscal balance data for 2009 are identical to those that can be made for any of the other years. The 2009 data are shown in table 6.

**Table 6. Catalonia's fiscal balance in 2009  
(According to the Catalan government)**

	<u>Monetary Flow</u>		<u>Burden Benefit</u>	
	NN	N	NN	N
<b>Balance</b>	-791	-16,400	+4,015	-11,269
<b>(% GDP)</b>	(-0.4)	(-8.4)	(+2.1)	(-5.8)

**Source:** Government of Catalonia (2012)

**Notes:** Figures in million euros, NN= Not neutralised, N=Neutralised

The balance usually argued by pro-independence groups is the neutralised monetary flow, resulting in a deficit of 16.4 billion euros, 8.4% of Catalan GDP that year. This and the remaining balances are calculated based on assumptions that inflate central government proceeds allocated to Catalonia as much as possible (and minimise central government spending in that region). As previously mentioned, this balance would only measure the relative contribution of central government to regional economic activity. It measures neither Catalonia's contribution to interregional solidarity nor much less the fiscal dividend of independence. The right balance to measure the contribution to interregional solidarity would be that calculated according to the neutralised burden-benefit approach. Even if we assume that the Catalan government's calculations are correct, table 6 shows that the neutralised fiscal balance according to the burden-benefit approach would result in a deficit of 5.86% of GDP, a figure not at all exaggerated as an indicator of the contribution of a region whose per capita income is 20% higher than the rest of Spain. However, the real indicative figure is substantially less than that calculated by the Catalan government. To arrive at fiscal balances that more accurately reflect the

allocation to Catalonia of central government revenue and expenditure, it will be necessary to produce more precise calculations than those of the Catalan government, like those of Polo (2014) who puts Catalonia's fiscal deficit based on the neutralised burden-benefit approach at 4.13% of GDP for that year. In another study, Vilalta (2012) shows that if fiscal balances are neutralised by a virtual reduction in public spending, the balances estimated by the Catalan government would be reduced by approximately two GDP percentage points for both approaches. In addition, Barberán and Uriel (2013) calculate that to assess the contribution of a region to interregional solidarity all revenue and expenditure relating to the contributory social security system should be excluded from allocated revenue and expenditure. This exclusion is justified because the system is like an insurance policy and the citizen can contribute to it in one region but receive the benefits in another. If this adjustment were to be made, Catalonia's average annual fiscal deficit balances for the 2005-2009 period would be reduced by an average of 2.15% of its GDP.

It is interesting to note the reaction of separatists to the 2010 fiscal balance data published recently by the Catalan government. As previously highlighted, the fiscal balance based on the neutralised monetary flow approach published by the Catalan government for 2010 is similar to that for 2009, with a deficit of 16.54 billion euros. That non-neutralised fiscal balance deficit was only 5.38 billion euros while the fiscal balance calculated by the burden-benefit method produced a deficit of 774 million euros for that year. When presenting this data, the President of the Catalan Government (La Vanguardia, 23/05/2013) only mentioned the fiscal balance deficit based on the neutralised monetary flow approach. He stated that the total fiscal deficits in Catalonia for 2009 and 2010 came to 32.54 billion euros and that with only a third of that amount the budget adjustments for the last few years would have been saved. Leaving aside that adjustments of that scale were not made, if President Mas had used the correct fiscal balance, calculated according to the burden-benefit approach, he should have pointed out that Catalonia's actual contribution to the State as a whole in those two years was negative (i.e. the relevant fiscal balance was in surplus) to the tune of 3.24 billion euros, which was funded by the corresponding issuance of debt by the Kingdom of Spain. Once again, the systematic manipulation of data to inflame anti-Spanish and pro-independence sentiments among Catalan society is evident.

The critical examination of the use of Catalan fiscal balances by pro-independence groups can be summarised in the four points below:

a) Catalonia's fiscal balances calculated by the Catalan government are based on assumptions that systematically inflate the deficit of these balances compared to balances estimated by renowned academic experts on the matter.

b) Catalonia's latest fiscal balances published by the Catalan government for 2009 and 2010, systematically chosen as proof of plundering and to show the manna of independence, focus on the neutralised fiscal balance based on the monetary flow approach, which of all the possible fiscal balances is the one that records by far the highest deficit.

c) These fiscal balances emphasized by secessionists neither measure Catalonia's contribution to interregional solidarity nor the dividend of independence. If properly calculated, they merely show the relative effect of central government action on the economic activity of various regions. In this regard it must be stated that

often the regions that are most dependent on State activity are usually the country's poorest or least prosperous regions. In particular, the neutralised fiscal balance according to the monetary flow approach does not even remotely measure the fiscal dividend that Catalonia would obtain with independence. This is because this balance neither covers the spending on national public goods by the central government which an independent Catalonia would have to pay for itself, nor does it reflect the increase in public spending and the fall in public revenues that the economic crisis of independence would bring. It is also a mistake or a gross manipulation to use a neutralised fiscal balance, in which fictitious, and therefore, non-existent revenue is included for cycle correction, as a measurement of the taxable income that Catalonia would count on the day after its independence.

d) The figures for Catalonia's fiscal balance calculated according to the burden-benefit approach, including those published by the Catalan government, do not denote an unduly large deficit, neither in themselves nor compared to other regions with a similar income in either Spain or other countries. Nor do they in any case reflect onerous fiscal treatment for Catalonia, because, as already mentioned, fiscal balances are not reliable indicators of the fiscal treatment of a region by the regional financing system.

#### **4.2. The fiscal treatment of Catalonia**

Reference should be made firstly to what was said in the previous section. Using the fiscal balance deficit of a region whose per capita income is appreciably higher than the average of the rest of the country as an indicator of the inadequate funding of that region is a gross error. Identifying that fiscal balance deficit as a the proof of an imaginary plundering and as fiscal dividend of hypothetical independence is an absurdity and gross manipulation which is only understood if the aim of those which do it is to inflame the passions of the Catalans against the rest of Spain.

As already seen interpreting fiscal balances is not a simple task, but assessing if an autonomous region is relatively better or worse financed as the average is perhaps even harder. To start with, any such comparison must be done on a uniform basis, so only regions subject to the common regional financial system must be considered. Though not the goal of this study, proper reform of the regional financing system should ensure that the regions under the special financial regime (i.e. Basque Country and Navarra) make a net contribution to the system in proportion to their per capita income similar to that made by other regions (on this matter see the bibliography notes on the regional financing system).

In the common regime, comparison between regions requires making a series of adjustments. For example, not all regions have been delegated all the functions that Catalonia has. This region, unlike all others in the common regime, has assumed responsibilities for policing and prison-related functions, so the gross income provided to it by the financing system must exceed that received from others by a sufficient amount to carry out those functions at the same level covered by the central government in other regions. Furthermore, each region has been able to vary in one way or another the taxes over which they have regulatory capacity raising or lowering their public revenues as a result. In this regard, it must be said that it is highly unlikely that increases in estate, inheritance or marginal income tax rates on which the regions have regulatory

power are automatically accompanied by a proportional increased in revenue. There is significant evidence of a displacement of tax bases from Catalonia to other regions to avoid paying the higher tax burden that Catalan citizens suffer in the aforementioned taxes. In addition, some regions may need higher revenue from the financing system than others to provide the same functions. For example, regions with proportionally more young people than others need more resources to finance spending on education; those with older populations need more resources to meet health needs; larger regions with more territory and less population density or island regions need more resources than others because the unit cost of providing the public services is often greater than in other autonomous regions.

Bearing this in mind, how can it be determined whether the regional financing system treats Catalonia better or worse than other regions? To answer this question, I will simply summarise the calculations and arguments in De la Fuente (2013a) and De la Fuente (2014) who, in my opinion, is the economist who has most rigorously studied these issues. This author, like others who have looked upon this question academically, bases his findings for the various regions on a comparable uniform indicator. This comparative financing indicator is a fraction whose numerator is the financing provided by the system, homogenised by the functions assumed while holding constant the tax effort for each region, and whose denominator is the adjusted population. The denominator is the actual population of the region adjusted according to the aforementioned demographic and geographical variables (age structure, size of region and dispersion, insularity, etc.). For each region, the indicator so calculated would measure the average financing per adjusted capita. In Catalonia, for example, revenue received is adjusted downwards due to the greater number of functions assumed, so that the comparative indicator is reduced on this account. The actual population of Castilla-León, just to show another example, is adjusted upwards by the combined effect of territorial size and dispersion, with the said indicator being reduced as a result.

Table 7 summarises the calculations of this indicator for 2002-2011 (the last year with available homogeneous data), the “pro-independence exaltation” period. In the table, 100 represents the average financing per adjusted capita for all regions under the common regime, with Catalonia and other regions compared to this average financing.

**Table 7. Comparative financing indicator among common regime Spanish regions, 2002-2011**

<b>Catalonia</b>	99.7
<b>Madrid</b>	100.6
<b>Andalusia</b>	99.5
<b>Balearic Islands</b>	92.2
<b>Valencia</b>	92.5
<b>Murcia</b>	96.7

**Source:** De la Fuente, A. (2013)

Average financing per inhabitant adjusted for all regions = 100

As can be seen, Catalonia has received on the last ten years a fiscal treatment by the regional financing system close to the average and practically the same as the other two regions with a similar economic size and population, Madrid and Andalusia. There is no basis therefore to maintain that Catalonia is fiscally mistreated. It should also be

remembered that Catalonia greatly improved its financing in the system designed for the 2009-2014 period. Due to the mechanics of the system, the first year it received benefits from the system was 2011, so the figures in table 7, which are average figures for 2002-2011, barely reflect the amount of this improvement. In other words, it is highly likely that the comparative financing indicator for Catalonia is currently at 100% (with Madrid noticeably below), so its financing would be the same as the system average, with not even the tiny difference shown by the data in table 7.

A criticism of the regional financing system from Catalonia, also shared by other regions and which certainly makes sense, is the violation of the principle of ordinality by the system redistribution mechanisms. As will be seen below, the current system does not respect this principle, although the consequences of not doing so are not as damaging to Catalonia or other regions as often thought, so the benefits of establishing it would not be particularly significant for those regions. According to this principle, applying the redistribution mechanisms of the common regime regional financing system should not alter the ranking of the regions based on their pre-existing adjusted gross taxable income capacity per capita before their application. It should be pointed out firstly that the system certainly alters this ranking but not, as sometimes stated, the order of the autonomous regions according to their per capita income. Catalonia's position in this ranking remains unchanged, as that of the rest of the regions, after fiscal redistributions made by the regional financing system. However, if the gross fiscal capacity per capita index is calculated uniformly for every region, after the redistribution of the system Catalonia slips more than 10% down the pre-existing ranking, a lot less than Madrid or Valencia though (these regions slip more than 30%). Extremadura and the Canary Islands are the regions that most benefit from the redistribution of the system. The numerator for this index, the homogenous gross fiscal capacity, is estimated from the public revenue generated by the taxes assigned to the regions recalculating them assuming the same tax effort for all the regions. The denominator, the adjusted population, is calculated according to the above-mentioned procedure. It would be desirable if the new regional financing system, which should come into effect in 2015, were to establish this principle as its application would make the operation of the system more fair and efficient. Having said this, the new system reformulated in such a way would provide Catalonia additional resources of less than 0.5% of its GDP (see De la Fuente, A. (2013c)). The reason this figure, while being significant, is far less than the claims that Catalonia may have in mind is twofold. Firstly, Catalonia is nowhere near the region that most loses out by not applying this principle and, secondly, the regions that most benefit from its application, from which resources would have to be diverted, are of very reduced economic size.

If, as seen, Catalonia does not suffer any type of fiscal mistreat but in fact is treated the same way as the average and much better than other regions of the same economic size, and also better than others with a higher or lower per capita income, there is no possibility that it can obtain significant additional resources through any reasonable reform of the common regime within the regional financing system. That is perhaps why it requested an ad-hoc system similar to the special regime in Basque Country and Navarra. But any conceivable regional financial system could provide the Catalonia additional resources that would fall short in proportion to its aspirations. This is maybe one of the reasons why in the last year and a half the Catalan government has only been talking about the "fiscal dividend of independence", the 16.4 billion euros or 8.5%

of Catalan GDP, shown by the neutralised monetary from fiscal balance. Sometimes one gets the feeling that with this figure at least a part of the Catalan political class wants is to actually set the price of “abandoning independence”.

Catalonia, like any other region with higher than the Spanish average per capita income, derives huge benefits of belonging to Spain. These benefits are generated by the full economic integration that only arises within a country and that entails the cost of transferring fiscal resources to regions with lower per capita incomes. You cannot have the one without paying for the other.

## **5. The economic costs for Catalonia of independence and self-determination referendums**

The aim of this section is to give an order of magnitude of both the costs brought about by the attainment of independence through a unilateral declaration by the Catalan government and those resulting from holding a plebiscite election or referendum on independence restricted to residents in Catalonia. This second case has hardly been studied. The analysis here conducted is based on the experience of Quebec, the only example available at the moment which is perfectly comparable with a hypothetical plebiscite election or self-determination referendum in Catalonia. The conclusions of this chapter can be stated in advance: the short-term economic costs for Catalonia would be exorbitant and immediate in the first case and very high, albeit more gradual, in the second. It can also be said that in the first case the costs would be very high for the rest of Spain too while in the second, as with Canada, the Spanish economy would not be much affected as what Catalonia would lose other regions would gain.

This section could also be entitled: the economic benefits for Catalonia of belonging to Spain and its acceptance of the current constitutional order. These benefits have been considerable leading Catalonia to achieve higher per capita income levels than many advanced countries in Europe as shown in the following table, taken from a study by supporters of secession.

**Table 8. GDP per capita of EU-15 countries in 2009  
(data in PPP)**

	<b>GDP per capita</b>	<b>% over EU-15 average</b>
Catalonia	€28,200	109
Sweden	€28,270	109
Belgium	€27,786	107
Germany	€27,127	105
Finland	€26,934	104
UK	€26,223	101
France	€25,429	98
Italy	€24,364	94
Spain (*)	€23,541	91

**Source:** Nuria Bosch and Marta Espasa, viability of Catalonia as a State. CATDEM reports, July 2012.

(\*) Spain without Catalonia

How is it possible that if Catalonia has been plundered by the rest of Spain, by around an annual 8% of its GDP as secessionists maintain since the entry into effect of the state of the autonomous regions in 1978, it has managed during this period to exceed the per capita income of the richest countries in Europe? How is it possible that the plundering rest of Spain still has a per capita income of 20% less than plundered Catalonia?

It is curious to see how almost all economic reports by authors or groups that pursue independence highlight, with understandable pride, the very high per capita income of Catalonia to justify its viability as an independent country while at the same time advancing the plundering hypothesis, "Spain robs us", to justify independence. They can always say, and some pro-independence authors do, that without the tax burden imposed by the rest of Spain Catalonia would be even richer. But this means that they would move off the per capita income map of the European Union and fall into line with the per capita income of countries with privileged natural resources such as Norway or the Arab states of the Persian Gulf. Would it not be more reasonable to conclude that if Catalonia within Spain has been able to comfortably exceed the per capita income of Germany, France, the UK and Italy it is because it benefits hugely from belonging to Spain? Would it not be more logical to think, based on the evidence in table 6, that no plundering or nothing like it exists and that if Catalonia was to leave Spain it would suffer a huge decline in its per capita income compared to that of those European countries whose income it presently exceeds and even in relation to the rest of Spain? These conclusions suggested by the data in table 8 are precisely those reached in this chapter after examining the economic cost for Catalonia of any possible secession from Spain and those from holding self-determination referenda.

### 5.1. The costs of independence for Catalonia

Table 9 provides a summary of the economic costs of independence estimated by various authors. Before evaluating this data a few points should be made on the nature of these costs. Firstly, these are the economic costs of independence for Catalonia. The costs that this independence would generate for the rest of Spain are not calculated. That is why all these costs would need to be increased due to the negative impact that the economic decline of the rest of Spain would have on the independent Catalonia. Secondly, what I attempt to assess is the short-term economic cost. Although in economics short and long-term are logical categories, they inevitably have chronological dimensions which, albeit not very precise, are clearly different in each case. The macroeconomic long-term normally refers to a country's growth potential, to the average annual growth rate during very long periods. The short-term is a concept which barely stretches to a decade. For example, the current economic crisis would fall within the short-term phenomena. As indicated in the second section, the crisis has been with us five years and the total decline in GDP in Spain since 2008 has been around 7%. This is the time frame in which the studies and arguments on the economic costs of independence to Catalonia must be set. Falls in GDP looked at here would occur with greater or lesser annual intensity during, say, a five-year period.

What has not been addressed here or in any other study to date is the impact that Catalonia's independence would have on its long-term growth potential. That is, once Catalonia reaches its GDP trough caused by independence, during the next thirty or forty years, would it have a higher or lower growth in its per capita income than it would have had if it had stayed as part of Spain? The evidence of the past thirty or forty years suggests that Catalonia would struggle to do better outside than inside of Spain. Furthermore, the economic policies implemented by governments dominated by pro-independence factions in Catalonia since 2003, and this would be the political class that would govern an independent Catalonia, are far more harmful for long-term growth than those implemented by the rest of Spain.

Turning to the short term costs, the recent crisis is a good reference for gauging the impact of the possible independence of Catalonia on the standard of living of its inhabitants. If the cumulative fall in GDP since the start of this great recession in 2008 has been around 7% and has led to an almost fourfold increase in the unemployment rate (from 7% to 27%) and a tripling of debt levels, as well as tax increases and cuts in public spending, it is easy to imagine the consequences that falls in GDP equal to or higher than that figure would have on Catalonia. As table 9 shows, most of the studies conducted to date forecast falls of more than 7%, some three times higher than this figure. Note also that short-term falls in the GDP of Catalonia of less than or around 2% would be the lower limit of the range of estimates. It will be shown how these more optimistic estimates do not consider, as will inevitably happen, that Catalonia's independence will involve its immediate exit from the EU and the euro and that these forecasts are more long-term than the others, so they are not incompatible with sharp falls in GDP during the first few years of independence.

**Table 9. Economic consequences of independence**

	<u>Fall in GDP</u>
<b>Antràs and Ventura (2012)</b>	≤ -2%
<b>Buesa (2012)</b>	-23.4%
<b>Comerford, Myers, Rodríguez (2012)</b>	-9%
<b>Ghemawat, P. (2011)</b>	-7%
<b>Guinjoan, M. and Cuadras, X (2011)</b>	-4%
<b>Polo (2013) (2014)</b>	-20%
<b>Rodríguez Mora (2013)</b>	-10%

**Source:** See the references in bibliography appendix

As expected, table 9 shows that there is a striking difference between the costs, significant but not very high or very low, estimated in the studies conducted by economists in favour of independence and those calculated by the rest. Supported by the Catalan government controlled media and the pro-independence platforms at its service, the opinion of the first group of economists is the official voice on the matter for most of Catalan society. The rest of the studies, any study in fact that calculates that the economic costs of independence would be dramatic, are rejected and their authors branded as prophets of apocalypse writing to prevent Catalonia from freely expressing itself and reaching its golden fate. That independence is not very costly but in fact highly profitable is the only opinion that the media in Catalonia consider that can reflect fairly free unbiased thought. Set out below are the most significant methodological differences between the studies of pro-independence authors and those of other authors on the fall in GDP after independence.

All the studies focus on the impact of the creation of the Catalan State on the export flows of Catalonia and resulting impact of the fall of these exports on Catalan GDP. The biggest fall in Catalonia's exports and the main source in the fall of its GDP would lie in the decline of its exports to what today is the rest of Spain. This fall would not only be a result of the "boycott" by the rest of Spain on purchasing goods and services from Catalonia but also what economists term "border effects" inherent in the creation of a new state. The term "border" here does not mean the establishment of physical barriers or customs on the movement of goods, people or capital but the mere establishment of political borders, the fact that there would be two different countries. Given that trade between countries is far lower than trade between the regions of a country, the "border effects" cover what happens to the trade of a region when it becomes a new country. For example, in the EU single market, in which there are no customs or other barriers to exchanging goods and services between EU countries, French regions trade up to eight times more with each other than with the rest of the EU while German regions, despite being the world's main exporter, three times more. Similar ranges have been detected for trade in US border regions with Canada and trade of these regions with the rest of the United States, despite existing free trade between these two countries and the fact that they share a common language. The same phenomenon occurs in Spain. Interregional trade is far more intense than trade between Spain and Portugal or than between Spain and France or between Spain and the EU as a whole.

Catalonia has a very open economy, with total exports representing around 66% of its GDP. Of these exports, approximately half go to the rest of Spain, with Spain therefore being by far its main trading partner. So, for example, Catalonia exports to France, a country with the same currency, tariffs and geographical proximity to this region as the rest of Spain, between a fifth and sixth of what it exports to the rest of Spain. What's more, Catalonia sells far more to the rest of Spain than what it purchases from it, obtaining a surplus in its trade balance on goods and services which offsets the deficit that it records in its trade with the rest of the world. For this reason, before the rise in pro-independence and the propagandistic manipulation of the fiscal balances by the Catalonia governments many believed that what "Catalonia lost" in its net fiscal contribution "recovered" through its favourable trade balance with the rest of Spain.

Yet let us continue with the description of the main mechanism that the quoted authors use to quantify the fall in Catalan GDP that would be brought about by independence. The next step is to calculate by how much Catalonia's exports to the rest of Spain would fall. Non-pro independent economists, basing their opinions on a combination of a boycott and "border effects", calculate that this fall would be substantial, not less than 50% (some authors estimate that it could initially reach 80%), as the rest of Spain would tend to trade with Catalonia in the same way as it does with France, Portugal or the rest of the EU (whose exports to Spain would increase in parallel with the decline in exports from Catalonia to Spain). If, for example, Catalonia's exports to the rest of Spain fell by 50%, assuming for the moment that Catalonia's exports to the rest of the world remain unchanged, Catalonia's exports would fall by 25%. It has previously been shown that Catalonia's total exports make up 66% of its GDP but when exports fall by 25%, GDP does not fall by this fraction as part of its exports are produced with imported products. As a result, the decline in exports does not fall fully on the producers in the region but partially too on the producers of other regions or countries that enable those imports. To correct these effects it is necessary to use the available input/output tables according to which Catalonia's exports to the rest of Spain, net of imports, represent around 21% of its GDP. This means that a 50% fall in its exports would result in roughly a 10% fall in Catalan GDP. To this drop should be added the loss of exports to the rest of the world caused by its exit from the EU and the European Single Market, and the relocation of multinationals and companies from the rest of Spain that operate in Catalonia under the freedom of movement of goods, people and capital that EU membership brings. Deducting from these negative effects the "fiscal dividend" of independence, which most non pro-independence economists consider non-existent in the short term and lower in any case than the nonsensical 8% of GDP estimated by pro-independence authors, falls in GDP in the range of 10% to 20% cited in table 9 are reached.

What calculations do pro-independence authors make to obtain substantially lower figures than these? Firstly, they consider that the fall in Catalonia's exports to the rest of Spain would be far less than the 50% figure quoted and previously suggested. They think that the "boycott" would either not be significant because economic interest would prevail over emotional considerations, or that in any case it would only affect final consumer goods, which only make up around a third of Catalan exports to the rest of Spain. Even in the worst case, they believe that the boycott would be temporary and quickly reversible. However, it has already been seen that, contrary to this view,

“border effects” would tend to reduce Catalonia’s exports to the rest of Spain due to the high transaction costs that would result for the rest of Spain trading with a new State. Some pro-independence authors acknowledge these effects, but consider that the figures would be lower than the estimates provided by other authors, despite tacitly accepting that they may be significant. They believe that a fall in exports to the rest of Spain would be offset euro for euro, and according to their arguments regardless of the fall, by an increase in Catalonia’s exports to the rest of the world. This assertion is based on two assumptions. The first is that they believe that Catalonia would remain in the EU and the euro. Some pro-independence authors tacitly admit the possibility of Catalonia leaving the EU (but not the euro), but then say that it would join the European Economic Area which has similar freedom of movement of goods, people and capital as the EU. They forget to mention, or perhaps ignore, that negotiating this accession would take time and, although it does not require unanimous approval of existing members to accept a new State (as with the EU), it does require a qualified majority which Catalonia would in no way be guaranteed as will be seen in the next section. The second is that the Catalan economy would reduce its prices and wages as necessary to increase its exports to the rest of the world until that increase would offset the fall in exports to the rest of Spain. In other words, Catalonia’s exports to the rest of the world would not be negatively affected by independence but would in fact increase substantially.

The arguments of pro-independence authors only make sense if a far longer period than that envisaged by the other authors is considered. Having said that, these arguments not only fail to deny but implicitly accept that the immediate impact of secession on Catalan GDP would be very negative. This is so because only very sharp falls in GDP can produce the necessary fall in prices and wages so that growth in Catalan exports to the rest of the world can offset the decline in its exports to the rest of Spain. Simply look at what has happened with the economic crisis in Spain since 2007. A cumulative fall of 7% in GDP and tripling of the unemployment rate has been necessary to achieve the necessary price and wage flexibility to significantly increase exports (and reduce imports). The increase in Catalonia’s net exports that pro-independence authors postulate is far higher than that recorded in Spain, which means the fall in Catalonia’s GDP should also be so. Regarding the prevalence of economic interest over the emotional reaction of many Catalans and the rest of Spain, it is possible that after a few years economic interest will prevail but it would be naive to deny the emotional reaction in the short term. Besides, economic interests also justify the existence of significant border effects. Furthermore, if the economic self-interest of Catalans and the rest of Spaniards prevailed then there would be no possibility of secession. In any case, these pro-independence studies suffer from the fundamental defect of thinking that Catalonia would continue in the EU or in the EEA, and that all multinational companies (which make up around 60% of Catalonia’s total exports) would continue to operate in the new country with the same intensity as presently. The fact that independence automatically entails Catalonia’s exit from the EU (and the euro) and the uncertainty over the duration of the negotiations for its entry into the EU or the EEA will inexorably have devastating effects on Catalonia’s exports and private investment, and therefore Catalan GDP, at least during the first years of independence.

## 5.2. An independent Catalonia within Europe

Catalan independence would lead *ipso facto* to its exit from the EU (and, as will be seen, the euro too). Presently it appears that not even the President of the Catalan government doubts this, as he recently reckoned in an Italian newspaper (*La Repubblica*, 27/12/2013). What is really intriguing though is how the Catalan government and its secessionist platforms have been able to convince much of Catalan society otherwise. However, the deception is so great that despite the intense propaganda Catalans are now starting seriously to doubt whether the new country will remain in the EU and the euro exactly as it has to date. As mentioned, even President Artur Mas has had to admit that Catalonia would leave the EU but not the euro, the first assertion being true and the second false as will be shown below.

Apart from the clarity of European treaties on this matter, all relevant EU authorities, from the President of the Commission to practically all the commissioners, have emphatically and repeatedly expressed that, as a new country, Catalonia would leave the EU and have to begin an accession process just like any other non-EU country. The reaction at the time by Catalan government ministers and ERC leaders and qualified representatives of pro-independence groups to these opinions have consisted of a kind of creative advertising to remove from the mind of Catalans any fear over Catalonia's exit from the EU and the euro. Indeed, President Mas said that "*Catalonia has always been Europe and will remain so*". Other than from a mere geographical view, this remark makes no sense. Politically Catalonia has always been Spain (and it has been Europe by being part of Spain) but after independence it would no longer be so, and therefore logically no longer Europe either. Minister Homs also stated that "*Europe would be dead if it rejected a market of more than 7.5 million consumers*", implying that this economic reality would lead European authorities to do everything necessary for Catalonia to remain in the EU. But Europe, the EU, has left and continues to leave Turkey out, a market of 70 million consumers, significantly bigger than the Catalan economy. In fact, Europe left Spain, and therefore Catalonia, out for a long time because in the opinion of the majority of the member states this was demanded by the Union treaty.

The main ideas that support the statements of pro-independence politicians and the opinions of much of Catalan society on this matter can be found in *Colectivo Wilson*, Boix (2012a) and Boix (2012b), ERC (2013) and *Catalunya: Europa* (2013), with the latter prepared by the Economistas por la independència, a platform of pro-independence economists. The arguments that can be found in their writings are identical so there should perhaps be a crossover between both sets of authors. It is perhaps most interesting to analyse the study *Catalunya: Europa* (2013), which reflects very widespread opinions in Catalonia.

This report maintains that all European authorities know that as independent Catalonia will remain in the EU, but that they now deny it because they do not want to hasten the independence process. As proof of this they present the initial statements by Barroso, Reading and Almunia on an independent Catalonia continuing in Europe, statements that were more hesitant than the categorical ones and, without any room for doubt, made since then by these same authorities. The date of the publication of the report did not allow the authors to cover other declarations, equally categorical on Catalonia's exit from the EU, made by other commissioners and European authorities

consulted on the matter, the most recent being those of Van Rompuy, President of the European Council. If as these authors claim, the principal European authorities agreed that an independent Catalonia would remain in the EU and, "*the political and economic world knows that independence is inevitable and is not worried about it*", it is not clear why they would want to delay the process and "give the impression" that they oppose it. What these authors seem to ignore is that when there are laws and treaties, such as those that govern the functioning of the EU, these laws must be observed. When, in addition, and contrary to what is said in pro-independence circles, the treaties are clear on the secession of a part of a member state, the European authorities can only express what the law mandates in this instance. The secessionists have what could be called an elastic view of the laws, where the laws are like some kind of clay mouldable to their interests. Even in the not just extremely doubtful but simply false case that all the main European countries were interested in Catalonia becoming a new EU state and did everything possible to ensure this, it would be legally impossible for Catalonia not to exit the EU even if it could return in a more or less short period of time. As will be seen, it is that exit and the inevitable uncertainty over the duration of this period that will be the determining factor to skyrocket the economic costs of secession.

Secessionists compare Catalonia's access to the EU with that of other internationally recognised countries. EU and international law, which the reports of pro-independence platforms seem to be unaware of or simply ignore, set out a complex and lengthy road map for a new country to be able to request entry into the EU. According to Jean-Claude Piris, see Piris (2013), former legal adviser of the European Council and perhaps the most respected legal voice in EU matters, this road map calls for fulfilling two conditions (apart from being European). Firstly, it must be a country recognised by the international community and, therefore, a member of the United Nations. Secondly, it must comply with article 2 of the Treaty, which provides *inter alia* that the rule of law must be applied and for which its creation must be legal. A simple unilateral declaration of independence, whether after a referendum or without a referendum or after plebiscite elections by the Catalan government, has no legal validity. In other words, a unilateral declaration of independence does not mean that the territory becomes an independent country before the international community and can therefore request its entry into the EU. According to Piris, it would have to undertake a long and arduous journey. At the European level it would involve changing the Spanish constitution (which establishes the indivisibility of the Spanish territory) and the European treaties that cover Spain as it is presently. Catalonia for its part would have to negotiate the international recognition of the new State. All this betrays the delusions of immediate entry in the UE that are being instilled in Catalan society. All those steps, which would naturally require the support of Spain, involve a long and drawn-out process before requesting accession, which could be blocked by any EU member. In short, the possibility of an independent Catalonia remaining in the EU or automatically becoming part of the EEA is so unbelievable that compliment should be paid to the power of persuasion of pro-independence intellectuals and the strength of the propaganda machinery of the Catalan government to make anyone inside or outside of Catalonia believe or have believed the opposite.

The authors of the aforementioned study cannot be very certain that Catalonia will remain in the EU because they are quick to say that what really counts is belonging to the

European Economic Area (EEA), an area of free movement of people, goods and capital that includes non-EU countries such as Norway, Liechtenstein and Iceland. While re-entry to the EU would require Catalonia obtaining the unanimous support of all its members, it would only need a qualified majority, i.e. the favourable vote of 19 of the 28 member countries, to form part of the EEA. They therefore say that Spain could not veto the entry of Catalonia into the EEA, like it could do into the EU. They add, and this is basically an error as will be seen later, that an independent Catalonia outside the EU but in the EEA could continue to use the euro, so its place within Europe would not be any different to that presently. There are several problems with these assertions. The first is to think that Spain is the only country in the EU that would oppose Catalan independence and, therefore, the only member that would veto its entry into the EU or the EEA. But, can we be convinced that the United Kingdom, which opposes the independence of Scotland, would not veto Catalonia? Or Belgium, which experiences continuous tension to prevent its breakup? Or Italy, which also has regions with centrifugal temptations? Or France, which to a lesser extent could also see territorial tensions? Or Germany, to whom Spain and Catalonia both owe a substantial part of their public and private debt, and which knows that independence would lead Catalonia to bankruptcy and the default on its debt, and that Spain would end up in a not very different situation to that suffered by Greece, requiring rescue operations such as those introduced these past few years?

In the long or very long term, it is possible that Spain might support Catalonia's entry into the EU or the EEA, as the authors maintain, and that it might try to convince other EU countries to support its inclusion too. But by then the damage would have been done, and it would have been immense and irreparable for many people. The second mistake is to assume that Catalonia would immediately enter the EEA. The long and uncertain path that a new country must follow before it becomes recognised as such by the international community has already been highlighted. What's more, in the highly unlikely case that this was accepted by the necessary qualified majority (almost certainly most large EU countries would oppose it); these treaties take a long time to negotiate. It must also be added that an independent Catalonia led by the coalitions that have controlled the Catalan government in recent years is not very favourable to free trade. Finally, in any independence situation, Catalonia would be forced to leave the euro and introduce its own highly devalued currency.

The introduction of a new currency, as recognised by the most rigorous pro-independence economists, would lead to a spiral of capital outflows-devaluation-inflation-devaluation-capital outflows which would end in hyperinflation, thereby offsetting the positive effects of devaluation on competitiveness, as well as sharp falls in GDP, as described in Feito (2013). With a new currency, Catalonia would suffer a not too dissimilar process to that followed by Germany in the interwar period. Naturally, pro-independence economists know this and politicians sense it too, so it is understandable that they resort to all sorts of mind games to convince Catalan society, and perhaps themselves too, that an independent Catalonia would remain in the euro. The most extensive versions are provided by Gali (2013a) and Gali (2013b). The starting point is that there are countries outside the EU that have unilaterally adopted the euro, such as Serbia, Montenegro, Cape Verde, Andorra, Liechtenstein, San Marino and the Vatican. Undoubtedly, an independent Catalonia could unilaterally decide to adopt the euro as legal tender. The fundamental question is whether outside the EU and therefore the

euro area it could use the euro as the only legal tender or whether it would be obliged to introduce its own currency because of not having the necessary euro credit to meet the financing needs of its public and private sectors.

The crucial difference between an independent Catalonia and those other countries, apart from their size and the fact that many of those city states are net creditors to the rest of the world, is that Catalonia has all its assets and liabilities in euros while those countries had them in their own currency when they adopted the euro. In other words, the Treasury of an independent Catalonia would have public debt in euros, so debt redemptions and new issuances to finance its deficit should be paid in euros. Who would grant the Treasury of an independent Catalonia the necessary loans in euros to meet its borrowing needs? Naturally, by not being a member of the Euro zone, the new Catalan state would not have access to the financial facilities created to rescue banks or finance euro currency countries whose situation impedes them from issuing debt in the markets. Pro-independence groups answer this question as follows: the same as now; in other words, Spanish banks or branches of Catalan banks in Spain or any other country in the euro area. Ignoring for now the matter that one of the main lender to Catalonia is the Spanish central government, Spanish banks that are currently refinancing Catalan debt and its public deficit do so because these banks are in the euro system and can discount that Catalan debt at the ECB. Spanish banks therefore finance Catalonia, like other regions, because its membership of the euro system entitles them to ECB funding. If Catalonia leaves the EU, any bank that has their headquarters there will leave the euro system and not have access to ECB funding, so they would not acquire issuances of Catalan debt because they would not be able to finance them. Pro-independence groups respond by saying that Catalan banks (in reality it is unlikely that any would remain) could establish branches in Spain (or in any other country in the Euro zone), even their headquarters if necessary, and access euro system financing through those vehicles. This is certainly possible but the assets that will have to be presented as collateral to obtain ECB funding must be issued by EU or EEA countries. Thus, debt issued by the Catalan Government will not be accepted as collateral by the ECB. Given that during the initial stages of its hypothetical independence Catalonia would be outside the EU and the EEA, and that as already seen the negotiation period in both cases would be lengthy and uncertain, the new Catalan state would have no other option than introducing its own currency to meet its payments.

The reality would be more drastic. The financial markets, including here Catalan businesses and families, would not give any option to the new state: immediately after the unilateral declaration of independence there would be a massive flight of capital from Catalonia, from the deposits of the banks located there as well as from the Catalan debt in private and bank portfolios, causing financial chaos that would require capital controls and establishing a new currency. It is difficult to overstate the economic and social costs of a diabolical downward spiral that would be triggered off at that moment.

### **5.3. The cost of the self-determination referendum or plebiscite election**

The previous section looked at the economic costs for Catalonia of the hypothetical circumstance of going from its current situation to independence. This section weighs up the economic costs for Catalonia of holding a self-determination referendum, or a plebiscite election with independence at the forefront of the electoral programme. Based on the

analysis in the previous section, the costs would undoubtedly be substantially less than those generated by independence because Catalonia would not leave the EU or the euro as would happen with secession. Therefore, the costs produced by the diversion of trade flows and relocation of capital and human resources would also be lower, as would the increase in the risk premium on Catalan debt, but they would be far from negligible. Interestingly enough, despite the rise in pro-independence rhetoric during these past two years, Catalonia has not yet suffered any of the costs that would be generated by either the secession or the referendum without conclusive results. Not at the time of writing at least, at the end of 2013, when an illegal referendum was announced and as such difficult to hold for November 2014. It is true that some companies and citizens have moved to other parts of Spain, but these movements are almost always explained by the high levels of taxation on income and property levied in Catalonia. As mentioned above this high taxation is completely unrelated to Catalonia's financing difficulties and has ideological roots because it stems from the decisions of left-wing parties which, alone or in coalition with CiU, have governed Catalonia since 2003. Most of these measures were mainly adopted before the outbreak of the economic crisis. Indeed there has been a recent rise in inheritance tax imposed by ERC on CIU as a condition, together with the calling of the referendum, for giving them its support for at least one more year of the term of office.

Some pro-independence groups, namely *Economistas por la Independencia* (2013), want to see in the absence of negative effects of secessionist rhetoric a *positive reaction from the economic world to Catalan independence*. The real reason why pro-independence rhetoric has not had significant costs for Catalonia is that for now the main economic players are ruling out the possibility of secession happening<sup>4</sup>. At the moment, the financial markets, multinational and domestic companies, both Catalan and from the rest of Spain, and even most citizens from Catalonia and the rest of the country, have not considered in their spending and investment decisions the possibility of an independent Catalonia, not even that of a Catalonia going further down the path of self-determination referenda that may ultimately lead to secession. What is discussed in this section is what would happen if this scenario starts to be discounted by economic players. For this, what happened in Canada with the rise of pro-independence in Québec is examined. It is certainly a remarkably similar experience to what would happen if Catalonia were to hold a self-determination referendum as recently announced by the President of the Catalan government or if at some point plebiscite elections were held with the goal of independence in the electoral manifesto. There are certainly differences which we will highlight in due course, differences that suggest that the economic costs for Catalonia would be higher than those for Québec since it decided to pursue independence. Like Catalonia in Spain, Québec plays an important role in the economy of Canada, representing around 20% of its GDP and 23.5% of its population. The corresponding figures for Catalonia are 18.56 and 16.2 respectively.

Separatist tensions and their possible economic consequences are lodged in the mind of Canadians with the electoral victory, on the back of a sovereignty project from the Parti Québécois (PQ) in 1976. From then on tensions between Québec and other Canadian provinces, as well as that province and the central government, intensified,

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<sup>4</sup> If any reader has any doubt over what the financial markets think of Catalan Independence they can consult J.P.Morgan (2012), Credit Suisse (2012) or UBS (2012) and more recently J.P. Morgan (2014) and Moody's (2014)

leading to the 1980 referendum, which was lost by the secessionists (the question in the referendum was whether Quebecers wanted to change their status to that of a *Free State associated with Canada*). After a brief period of political stability, pro-independence tensions escalated in the early 90s when, on the initiative of the PQ, a series of proposals were put to the vote to “resolve the problem of Québec”. The first of these, the Lake Meech Accord in 1990, was voted on in every province in Canada but did not receive the necessary support and was not approved. The second, the Charlottetown Accord, was submitted to a public referendum and defeated by a majority. After this, the secessionists achieved in 1995 the holding of a national referendum with the question of independence in which the “no” vote won by a close margin of 1%.

What has happened to the economy of Québec in the past 30 years? Between 1981 and 2007, to exclude the impact of the recent economic crisis, the average annual economic growth of Québec was 2.3% while the average annual growth of the rest of Canada was 3%. Although initially this difference may appear small, over such a long period it means that while the rest of Canada saw an increase in its GDP between 1981 and 2006 of 109.9% during that time, the GDP of Québec only increased 76.6%. Specifically, Québec went from representing 23.5% of Canada's GDP in 1981 to 20.56% in 2006. One of the reasons for the lower GDP growth of Québec was indeed negative demographics and emigration to other Canadian provinces, similar to what would happen to Catalonia. As its population grew less than the rest of Canada, the growth in per capita income in Québec during that period was similar to that of the rest of Canada. But this equal growth in per capita income is indicative of economic inefficiency in Québec, as its per capita income in 1991 was well below that of the rest of Canada (by an amount of \$3,652) and therefore its growth should normally have been faster. Due to the equal growth in per capita income between Québec and the rest of Canada and the lower level of per capita income of the former in relation to the latter in 1981, the gap between the living standards of the rest of Canada and those of Québec has widened by 68%, from \$3,652 in 1981 to \$6,137 in 2007.

The harmful influence of pro-independence tensions on the relative economic performance of Québec is clear. Between 1976 and 1980, during the initial period of pro-independence, thirty of the largest Canadian companies left Québec and around 100,000 of its citizens under 25 years of age went to live in other provinces. The economic and financial predominance in Canada of Québec during the 1970s was clearly transferred to Toronto and today the difference in income and population between the two cities leans heavily in favour of Toronto. So, while in 1976 the metropolitan area of both cities had practically the same population (around 2.8 million), today that of Toronto is 5.6 million (double) and that of Montréal 3.6 million (30% more).

In my opinion, if Catalonia follows the path of self-determination referenda or plebiscite elections, it would see a significant fall in its growth relative to the rest of Spain (and relative to which Catalonia would have in the absence of referenda). As soon as the separatist risk is discounted by national and international financial players, by Catalan families and businesses and the rest of Spain, it would have negative economic consequences for Catalonia and positive ones for the rest of Spain (in the same way as Québec separatism has been beneficial for Ontario and other Canadian provinces). The veiled insinuations that many national and multinational companies make today about their relocation would actually take place with a frequency and intensity that would surpass mere anecdotes.

Catalan debt, currently outside the market, would see a significant increase in its risk premium (as is happened with Québec debt compared to that of other Canadian provinces). Exports from Catalonia to the rest of Spain would also be affected, although obviously to a far lesser extent than with independence. As has happened in Canada, if Spain as a whole was to recover from this crisis satisfactorily and grow vigorously once again, none of the above would prevent Catalonia from growing with the Spanish economy, although not as quickly. However, if Catalonia would follow the path of self-determination referenda and plebiscite elections without having resolved its severe fiscal problem, Catalonia could end up being left out from the recovery of the rest of Spain. Perhaps not at first, because the negative effects referred to here would be fairly minor initially, but their gradual accumulation would weaken the economic performance of Catalonia sooner or later.

## 6. Conclusions

The first conclusion of this study coincides with the premise on which it is based: economic factors have played an essential role in the upturn in pro-independence in Catalonia and will keep on doing so in the immediate future. Certainly they are not the only ones and some people may think that they are not the most important ones. Unquestionably, there are political factors, the most prominent being the existence of parties and factions whose chief goal is Catalonia's independence. Throughout Spain's modern history, secessionism has always reared its head whenever our country has been at its weakest, and the economic crisis we are going through is definitely one of those moments.

Even if only for that reason, economic factors are decisive for understanding why the independence issue has been raised now and not before. In any case, they hold the key to understanding both the disaffection with Spain and support for secessionism by a growing number of Catalonians and the dangerous pro-independence pirouette of politicians who had never been pro-independence and the open rebellion of those who have always been.

The second section of the study underscores how crucially important two singular economic phenomena have been to this process: the longest and most intense period of economic expansion in our recent history (1994-2007) followed by a crisis that has also been the longest and most intense on record in Spain (2008-2013). During that long and vibrant economic upswing, which everyone thought would never end, all areas of the State embarked on ambitious public spending projects, but the crisis made it impossible to continue funding such projects. Spain as a whole has suffered a severe fiscal crisis that has hit the different autonomous regions to a larger or lesser extent, depending on the excesses committed before the crisis and the adjustments and reforms made since then. The fiscal excesses committed in Catalonia by the first tripartite government (2003-2007) were significantly larger than those of most other regions, and the way different Catalan governments handled the crisis was just as equally disastrous. Consequently, when the crisis hit Catalonia (as in Valencia or Castilla-La Mancha), the public debt and deficit levels were unsustainable. Unlike many other region, however, Catalonia's ruling political class has managed to convince Catalan society that its economic difficulties are due to plundering by Spain and that the solution to them is to leave Spain or, at the very

least, use this threat to obtain the huge resources they need to lower its public debt to sustainable levels without further reforms and public spending cuts.

In this section, I argue that the switch to pro-independence is not unrelated to Catalonia's huge difficulties to keep on financing its current level of public spending. The pro-independence stances of the Catalan Government and its separatist allies have grown more aggressive as its financial problems have worsened. Paradoxically, it has become more heavily economically dependent on the Spanish Government. The Catalan Department of Finance found it impossible to issue enough debt necessary to pay its suppliers, finance its high public deficit and make its huge debt repayments (just like some other regions), which is why the Spanish Government set up the Regional Liquidity Fund (FLA) and the Suppliers Payment Fund (FPP). With the Spanish Government's support, Catalonia has absorbed nearly half of the FLA and a share of the FPP that considerably outweighs its contribution to the Spanish GDP, enabling it over the last two years to run up budget deficits significantly higher than the average of the other regions and keep on increasing its public debt. This goes to show that the Catalan Government and the parties that back it have, for the time being, benefitted from their pro-independence stance: they have managed to soften the adjustments needed to put their deficit and public debt back on the path towards sustainability, thereby lowering the political cost of these measures and cushioning the fall of its GDP. Since the onset of the crisis, Catalonia's GDP has dropped 6.7%, less than the drop of Spain's overall GDP (7.5%) and much less than that in Valencia (11%), Castilla-La Mancha (12.7%), Andalusia (11%) or Extremadura (10%).

The pro-independence groups have managed to convince much of Catalan society that its hardships are not due to the economic crisis that has hit the rest of Spain even harder, or to overspending and economic mismanagement by its governments, but to the fact that "Spain is robbing them." They have also got many people in Catalonia thinking that independence is the solution to their economic problems and the door to a haven of well-being that today they are denied because they are part of Spain. The study outlines a number of reasons to explain the commercial success that the unfounded assumptions of the independence movement have reaped among Catalan society. One is that it is not easy for people in a region that is richer than almost all others to grasp that they may face the same and even bigger difficulties than other regions that receive net transfers from the financing system to keep on maintaining their level of public spending. It is hard to avoid the easy temptation to think that these difficulties stem from too many resources being transferred to other regions and that they would be solved by reducing those transfers. Yet a person or a company who is much richer than others, and so with their taxes contributes to support the State far more than those other people or companies, could end up bankrupt or insolvent if they have over borrowed and the sum of their debt servicing and current expenditure exceeds their current revenue plus any other revenue raised by selling off assets.

The third section of the study demonstrates the nonsense of the "tax-plundering" or "Spain robs us" myth, as well as the fallacy of the tax windfall that pro-independence groups claim Catalonia would enjoy if it gained independence. The study also argues that it will not be easy, nor therefore immediate, to eradicate these beliefs from the mind of many Catalonians. As this study demonstrates, the two economic postulates of the pro-independence movement, fiscal plundering and the well-being haven of

independence, are underpinned by quicksand and cannot withstand the weight of reason and evidence. Nonetheless, as everyone knows, when rigor and evidence come up against a saying that has become deeply rooted in people's minds, the saying always wins in the short term, especially if the saying provides simple explanations of the causes of the crisis and painless solutions to it, whereas fully understanding the reality involves complex explanations and solutions which inevitably call for sacrifices. Above all if the saying and economic axioms of pro-independence are voiced by powerful speakers who drown out the alternative explanations. To make matters worse, until recently these explanations have remained few and have been inadequately marketed to Catalonia society. Even so, the logical gaps of the independence movement's economic foundations are such that sooner or later reason and evidence will make inroads into Catalan society. Indeed, it could be said that part of these foundations, such as whether an independent Catalonia should remain in the European Union and the euro, have begun to erode in recent months.

To prove the "tax plundering", pro-independence groups point to Catalonia's fiscal balance deficit. According to the Regional Government's figures, in 2010 it stood at 8.5% of GDP, and it claims this figure has stayed fairly constant since the introduction of the State of the autonomies in 1978. This study summarizes the evidence available to date on Catalonia's fiscal balances and gives a detailed explanation of the meaning and scope of the fiscal balance concept, reaching several conclusions. The first is that the fiscal balance is not the right instrument for measuring whether any region is treated better or worse in fiscal terms. As is explained in the text, a region can have a larger fiscal balance deficit than another and yet receive a better fiscal treatment. The second, that the differences between the fiscal balances of a country's regions depend essentially on regional differences in per capita income, the size of the welfare state managed by the regions and how progressive the tax system as a whole is. The third, that there are two ways of calculating fiscal balances: the monetary flow approach and the burden-benefit approach, and each of these two approaches suits different purposes. The monetary flow approach should only be used to measure how Central Government's fiscal actions directly impact the regional economy. This direct impact might be positive but indirectly it may have negative effects if it absorbs resources that could be put to more productive private uses. The burden-benefit approach is the right one for measuring the redistributive impact between regions of Central Government's fiscal actions and therefore to gauge the region's contribution to inter-regional solidarity. Moreover, each of these two balances can be recalculated to neutralize the impact of the economic cycle, by developing the virtual fiscal balances that would exist if the Spanish economy was growing at its potential and there was full employment. This means that, for each year, there are not one but four possible fiscal balances for Catalonia. The study shows that of all the possible fiscal balances, the Catalonia Government uses the ones that inflate Catalonia's fiscal deficit the most. Yet, above all, it shows that they are used wrongly. For example, the fiscal balance of 2010 (or any year) is used according to the monetary approach and neutralized as an indicator of fiscal abuse or Catalonia's contribution to inter-regional solidarity, which makes no sense. Taking the nonsense to its logical apotheosis, the same balance is held up as a measure of the fiscal dividend of independence.

Catalonia's fiscal treatment has to be measured by other indicators, as it is done in this study and is summarized below. Catalonia's contribution to interregional solidarity, and that of any other region, must be measured by the neutralized fiscal balance calculated according to the burden-benefit method. The fiscal dividend of independence must be calculated on the basis of the fiscal balance according to the non-neutralised burden-benefit approach, correcting this balance by the substantially increased public spending that an independent Catalonia would face and by the equally marked slump in its public revenues. The final conclusion is that Catalonia's fiscal balances, including those calculated by its Government, are fully consistent with the per capita income differences between Catalonia and the rest of Spain, and are similar to those recorded by the rich regions of other countries. Under no circumstances do they justify the tax plundering argument or the promise of a tax windfall that would feed an independent Catalonia. Indeed, how is it possible that if Catalonia has been plundered by the rest of Spain, by around an annual 8% of its GDP as secessionists maintain since the coming into effect of the state of the autonomous regions in 1978, it has been able to exceed during this period the per capita income of the richest countries in Europe? How is it possible that the rest of plundering Spain still has a per capita income of 20% less than the plundered Catalonia? The fact that Catalonia belongs to Spain, like any other region especially those with higher per capita income, has the huge benefits generated by full economic integration that only arise within a country and the cost of transferring fiscal resources to regions with lower per capita incomes. You cannot expect to have one without paying for the other.

As mentioned earlier, the fiscal balance is not the right instrument for measuring whether a given region is treated better or worse in fiscal terms. The best indicator for this purpose would be the result of measuring how much the system gives to each region relative to its population. As the text explains, constructing this indicator involves considering the specific features of each region, the political powers transferred to them, their population density and its age structure, etc. The studies that have calculated these indicators on a like-for-like basis, so they can be compared across commonly-funded regions, show that the fiscal treatment applied to Catalonia in the last ten years has been very close to the average and almost the same as the other regions with similar population or economic size, Madrid and Andalusia. In fact, the funding system agreed for the period 2009-2014 noticeably improved Catalonia's funding, so that indicator might improve accordingly when the figures for these last few years become available.

There is clearly room for improvement in the regional financing system, especially with regard to its transparency, and it should also be made more efficient by applying, among other improvements, the principle of ordinality as described in this study. That said, neither this nor any other potential improvements to the regional financing system would give Catalonia more than 0.5% of its GDP, so this amount would not solve the serious problems of adjusting its debt and public deficit to sustainable levels.

Section four of the study explains how much independence would cost Catalonia in economic terms, as well as the economic costs that the region would face if it goes down the road of self-determination referenda or plebiscite elections. The study summarises the main papers written on this matter and offers different considerations as to how large these costs would likely be. Although it gives quantitative orders of magnitude, this section mainly aims to identify the economic mechanisms that independence would set

off and determine whether these mechanisms have the potential to trigger off a major depression in independent Catalonia.

Catalonia's independence would set off two different engines of depression: on one hand, the fall in its exports to the rest of Spain and in investments from the rest of the world, including the rest of Spain, in Catalonia, as well as the loss of skilled workers; on the other, leaving the European Union (EU) and the euro. This second engine would not only speed up the first, but also have a colossal depressive impact. There is no denying that Catalonia would leave the EU, as shown in this section, and as the President of the Catalonia Government himself has had to admit. Contrary to what the President claims, Catalonia could not stay in the euro either and would be forced to introduce its own, very devalued currency.

The reason why is that if Catalonia did not belong to the EU or the European Economic Area (EEA) at the time of its independence, its debt would not be accepted by any financial institution, either inside or outside Catalonia (unlike what happens today), because the banks could not finance this debt through ECB loans. In fact, as soon as it declared its independence, probably before, there would be a massive flight of bank deposits and other Catalonian assets towards Spain and other Euro zone countries, forcing it to introduce a new currency. The economic costs in the case of self-determination referendums or plebiscite elections would be much smaller because Catalonia would not leave the EU or the euro, but they would not be negligible. Using as a proxy what happened in Quebec's case, this section shows that when the markets (which include Catalan businesses and families) begin to discount the likelihood of a probable though distant secession of Catalonia (and this has not occurred yet), the two engines of depression referred to above would start operating, albeit at a much slower rate. Unlike what would happen in the event of a unilateral declaration of independence, which would be economically dramatic for Catalonia but also very expensive for the rest of Spain, this latter case would be harmful to Catalonia but partially beneficial to the rest of Spain, as has happened in the case of Quebec and the rest of Canada. For all these reasons, and to conclude this study, it must be said, at least from an economic perspective, that anyone seeking secession does not know what they are doing because they do not know what they are undoing.

## **Bibliographical appendix**

### **Notes**

There follows a description of the bulk of literature used in this study, as well as references especially useful for delving deeper into the issues addressed.

#### **The fiscal crisis in Spain and Catalonia**

The annual reports published by the Bank of Spain (2009, 2010, 2011, 2012) provide a particularly comprehensive overview of how the Spanish economy has performed during the crisis. For a synthetic view of the fiscal crisis in Spain, see Taguas, D. (2013). For information on the fiscal crisis in Catalonia and the autonomous regions as a whole, see the reports published by Fedea (2012 and 2013) and BBVA (2013).

#### **Catalonia's fiscal balances and fiscal treatment**

For information on Catalonia's fiscal balances and the fiscal balance concept, see Zabalza (2013), Barberán, R. y Uriel, E. (2013), Semur, A. (2013) and Polo, C. (2014). The bibliography on the regional financing system and Catalonia's fiscal treatment is particularly vast, and the following works shed most light on the issues. All the articles in Instituto de Estudios Económicos (2013) are relevant. An especially useful and comprehensive source is De la Fuente, A. (2012). See also Zabalza (2012) and De la Fuente, A. (2013 a). For historical data on fiscal balances to 2005, see Barberán, R. and Uriel, E. (2007), Instituto de Estudios Fiscales (2007) and Generalitat de Catalunya (2009). See also Uriel, E. (2014) and Polo (2014). The most outstanding studies on Catalonia's fiscal treatment are by De la Fuente (2013 a) and De la Fuente (2014).

#### **The economic costs of independence for Catalonia and self-determination referenda**

In addition to the studies mentioned in the text, see Ghemawat, P. (2012 a), (2012 b) and Young, R. (1998).

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