

# **AN ESTIMATION OF THE SOVEREIGN RISK OF A CATALAN STATE**

Joan Elias  
Joan Maria Mateu

Comissió d'Economia Catalana del Col·legi d'Economistes de Catalunya

January 2015

## **INDEX**

1. Introduction
2. International credit rating agencies
3. Assessment of the sovereign risk of a Catalan state
4. Analysis of the institutional and economic profile
  - 4.1 Effectiveness of institutions and government
  - 4.2 Economic structure
    - 4.2.1 GDP per capita
    - 4.2.2 Economic growth
    - 4.2.3 Economic diversity and volatility
  - 4.3 Assessment of the score: institutional and economic profile
5. Analysis of the foreign sector, public finances and the monetary policy profile
  - 5.1 Foreign sector
    - 5.1.1 The national currency in international transactions
    - 5.1.2 Liquidity and foreign debt
  - 5.2 Public finances management
    - 5.2.1 Public finances and fiscal flexibility
    - 5.2.2 Debt burden
  - 5.3 Monetary policy: flexibility
  - 5.4 Assessment of the score: foreign sector, public finance and monetary policy profile
6. Final conclusions: estimating the potential credit rating of a Catalan state

## 1. Introduction

The present study aims to approximate, in an informative way, the eventual qualification, or sovereign credit rating that might be granted to an independent Catalonia by an international credit rating agency. This qualification is very important in determining the role of an independent Catalonia as a potential debtor in the international financial markets. These qualifications are key to establishing, not only the capacity of indebtedness of an independent Catalonia in the international financial markets, but the conditions under which Catalonia will have access to these financial sources as well.

The 'sovereign risk' of an independent state is part of the more global concept of 'country risk'. The sovereign risk is that risk assumed by international creditors when lending funds to an independent state, or to an entity guaranteed by an independent state, with the special particularity that the legal actions taken against the debtor or whoever is ultimately responsible for the debt, since it is an independent state, in case of non-payment or financial bankruptcy, can be ineffective due to the sovereignty.

An independent state has different mechanisms for financing its activities and influencing its growth: taxes (fiscal policy), money creation and regulation of interest rates (monetary policy), and public debt issuance (economic and financial policy). We shall refer from now on especially to the latter.

Besides the aspects associated to the sovereign risk of independent states, the fact is that the public debts of these states are financed in the so-called generically international financial markets, where a variety of actors and financial intermediaries operate located geographically in the same state of the debtor or in the most important international financial centers of the world, such as New York, London, Frankfurt, Paris, Tokyo or Singapore, for example.

Public debt can be implemented by means of different instruments, usually differentiated by the debt's repayment term. We normally distinguish between short (up to 18 months), medium (2, 3, 5 years) and long term (10, 15, 30 years) public debt. The instruments are diverse as well: promissory notes, bonds, obligations, loans, etc. The public debt instruments, being associated with a sovereign risk, are considered very attractive due to their payback reliability and profitability, linked to the so-called risk premium, a very popular term in recent times, especially since 2012, when Spain, among other states, suffered severe pressures from the international financial markets due to the significant doubts their public finances generated, by accumulating deficits superior to what should be manageable in the long term.

The risk premium is the interest spread added to the referential interest rate, in our case the German bond, that acts as a referential rate to calculate the interest rate that shall be paid by those sovereign states to obtain credit in the international financial

markets. At the same time, the risk premium is linked to the greater or lesser degree of economic-financial reliability of a given country. The lower the perception of the sovereign risk of a state, the lower the risk premium will be, and therefore the interest rate to obtain financing shall be lower as well. On the contrary, the higher the perception of the sovereign risk of an independent state, the higher the risk premium will be.

## **2. International credit rating agencies**

The sovereign risk of an independent state is assessed by international credit rating agencies. These agencies analyze the solvency of a variety of international financial risks, among them, sovereign risk. International credit rating agencies value, using certain methodologies, the ability and willingness of a debtor, corporation, country or local government to comply in time and form with its financial obligations. These entities are registered as journalism agencies and are not subject to the restrictions imposed on auditors.

Although the international credit rating agencies have existed for many years, since the crisis occurred in 2008 —Freddie Mac, Fannie Mae, Lehman Brothers, Merrill Lynch, Goldman Sachs, Greek debt crisis, etc.— these agencies have experienced a certain loss of reputation, since they were not able to anticipate and foresee significant financial bankruptcies. Nevertheless, these agencies are still referential in the international financial world for their assessment of risk, not only of private corporations but of public entities, including states and sovereign risks.

The main international credit rating agencies are Standard & Poor's, Moody's, and Fitch, all of which have their headquarters in the United States. Each of these agencies has its own methodologies and criteria to assess and establish qualifications, or ratings, for the corresponding risks they analyze, among them, sovereign risks. The ratings, or risks qualifications, are usually granted by the international credit rating agencies by means of a combination of characters, signs (+) or (-), and digits.

## **3. Assessment of the sovereign risk of a Catalan state**

To enhance this study, the methodological contributions, in their most basic aspects, of Standard & Poor's have been considered in order to assess ratings, incorporating certain variables, scenarios and hypothesis required to make possible an approach to the potential sovereign risk of a Catalan state.

Standard & Poor's allocates sovereign credit ratings by a combination of the letters A, B and C, and the (+) and (-) signs. The maximum rating of a long term debt is 'AAA', which corresponds to states of maximum solvency, and the minimum is 'CC', which corresponds to states which are completely insolvent.

In the following table some but by no means all of the ratings that Standard & Poor's allocates to sovereign risks can be observed. The 'AAA', rating of maximum solvency, is currently granted to only 12 states. The 'BBB' corresponds to a group of 7 states, including Spain. Catalonia's current rating, 'BB', corresponds to a group of 7 states.

### Meaning and examples of some Standard & Poor's ratings

<b>AAA</b> (Germany, Australia, Canada, Denmark, Hong Kong, Liechtenstein, Luxemburg, Norway, United Kingdom, Singapore, Sweden, Switzerland)	Very strong ability to fulfill financial commitments.
<b>BBB</b> (Bahrain, Colombia, Bahamas, Italy, Panama, Philippines, Spain)	Adequate ability to fulfill financial commitments, but adverse economical conditions can weaken this capability.
<b>BB</b> (Bolivia, Costa Rica, Croatia, Guatemala, Hungary, Paraguay, Portugal)	Less vulnerable in the short term, but facing significant uncertainties in the fields of business, economics and the financial sector.

There are also other ratings including 'AA', 'A', 'B', 'CCC' and 'CC', and intermediate ratings like 'AA+', 'AA-', 'A+', 'A-', 'BBB+', 'BBB-', 'BB+', 'BB-', 'B+', 'B-', 'CCC+' and 'CCC-'. The bonds issued with rating 'BBB' or superior are considered investment grade, while those below this rating level are qualified as non-investment grade, in other words, high risk or speculative investment grade; these are popularly called high-yield bonds or junk bonds.

The rating that Standard & Poor's has granted to present-day Catalonia, since 2012, is 'BB', which means high-yield bond or junk bond. This rating does not allow Catalonia to have access in an autonomous and direct manner to the international financial markets, a fact that makes Catalonia financially dependent on the impositions that in the field of regional financing which the Spanish government decides and on the discretional transfers of funds received from the Spanish government through mechanisms such as FLA (Autonomic Liquidity Fund) or PPP (Suppliers Payment Plan). At present, the Generalitat of Catalonia has no room for maneuvering in the area of financing and is exclusively dependent on the financial instruments previously referred to.

The Basque Country and Navarre, since June 2014, have been granted by Standard & Poor's a rating of 'A', which is two levels above Spain's rating and five above Catalonia's. Their high fiscal autonomy and good financial management provide these territories with higher flexibility than Spain under an adverse scenario. The special and differentiated agreement on fiscal issues between Spain and these autonomous communities, thanks to the recognition of these territories' historical statutory rights in the 1978 Spanish Constitution, allows these communities to collect and manage all the taxes and levies generated in their own territories, only then having to financially

contribute to Spain with the corresponding share of certain costs corresponding to functions centralized in Madrid, such as the monarchy, defense, foreign affairs, etc.

Needless to say, if Catalonia enjoyed a similar fiscal arrangement as that of the Basque Country or Navarre, not only would it not have financial problems of any sort, but surely it would enjoy a rating at least as high as that of these autonomous communities. The credit rating of an independent Catalonia, consolidated as a new state of Europe and a member of the European Union, would be logically even better, because the Catalan economy is significantly stronger and more diversified than those of these special autonomous communities.

Five score areas are considered to establish the credit rating of a sovereign risk:

1. effectiveness of institutions and government
2. economic structure
3. foreign sector
4. public finances management
5. monetary policy: flexibility

Each of these aforementioned five areas, depending upon the result of the analysis, receives a score between '1' and '6', where '1' is the best score and '6' the worst. These five areas are grouped in two different profiles:

1. institutional and economic profile
2. foreign sector, public finances and monetary policy profile

The corresponding credit rating of sovereign risk is obtained from a result of the different scores attained in these five assessment areas.

In the following chapters, these five assessment areas are individually analyzed with the aim of verifying the position an independent Catalonia would hold in comparison with other established independent states.

To reach such an estimate, it's necessary to set certain working hypotheses to estimate the possible public finances and other relevant factors of an independent Catalan state. The data used in this study have been obtained from official sources, public institutions, and international organisms.

One of the most important hypotheses which this study is based on makes reference to the transition process to Catalan independence. In this regard, it is necessary to note that the scenario considered is that of an ordered and negotiated process with the Spanish government for Catalonia's independence. The present study takes into account the worsening conflict between both the Spanish and Catalan governments, and considers that, sooner or later, both parts will be obliged to negotiate, firstly, the conditions under which the Catalan people can decide their political future and,

secondly, in the event that the result of this decision is independence, the conditions, both transitional and definitive, for the creation of the new State in an orderly manner.

#### **4. Analysis of the institutional and economic profile**

This profile analyzes the current and potentially future situation of Catalonia's institutional structures in transition to independence, their effectiveness in managing their jurisdictions with the necessary efficiency and transparency, as well as the economic structure of the new Catalan state. The starting point of this analysis shall be the present situation. A prudent estimation of what could be the future situation shall complete the analysis.

##### **4.1 Effectiveness of institutions and government**

Catalonia has right now, before becoming an independent state, an efficient, though incomplete, network of institutional structures. These structures were created since the restoration of democracy in Spain, and as a result of the territorial organization of the Spanish state into autonomic communities, back in the 1980's.

Present-day Catalonia has a democratically-elected parliament and an Executive that manages public administration. The Government of the Generalitat of Catalonia is fully consolidated and organized into twelve departments. Significant powers have been devolved —some incompletely— to the Generalitat of Catalonia. These powers, in permanent dispute and debate with the government of the Spanish state, correspond to core areas, such as education, health, security, social services, public media, environmental protection, culture and others.

However, it is clear that very important institutional structures and powers have still yet still to be created or devolved, like for example, in regard to infrastructures, telecommunications, energy and water management, internal revenue services, foreign policy, social security administration, monetary policy and control (Bank of Catalonia), prosecution and justice, and others.

An independent Catalonia will need to complete its own governmental structures to manage public affairs efficiently. It is also true that important progress has been made over many years that will facilitate the incorporation of new governmental structures with those already created, efficiently functioning with the required transparency after years of experience in institutional and governmental action.

While it is true that Catalonia has the doors to external financing closed due to the conflict with the Spanish government, among other reasons, fundamentally in connection with the autonomic financing, it is clear that this situation will change once Catalonia is able to manage all of its own resources, particularly the taxes that it

generates, and therefore Catalonia's image as a reliable debtor in the financial markets would be strongly reinforced, even once it shoulders a share of the Spanish public debt after the split of public assets and liabilities is made.

Another element to be considered is the social geopolitical stability in which an independent Catalonia would find itself. Bearing in mind the hypothesis of an ordered and negotiated transition to independence, it is considered that an independent Catalonia would continue being a member of the European Union, among other multistate organizations, and of the Eurozone.

In conclusion, in reference to the area of effectiveness of institutions and government, a basically conceptual assessment, the opinion is that Catalonia would be sufficiently prepared to achieve independence with full guaranties and therefore meets the minimum requirements for a satisfactory score. Being prudent, this score would be between '2' and '3' on a scale, as mentioned before, from '1' to '6'.

## **4.2 Economic structure**

The analysis of the economic structure of a state is an essential area for assessing its sovereign risk solvency. In this section the income level, growth potential and diversity and volatility of the Catalan economy, not only at present but in the near and medium term, as an independent state will be analyzed. When forecasting future data, prudent hypotheses will be considered.

### **4.2.1 GDP per capita**

One main element when assessing the economic score of a sovereign risk is the level of income per capita, particularly the GDP per capita. As in the previous chapter, sovereign risks in the economic area are scored from '1' to '6'. The score levels fluctuate between the highest of 38,000 USD, that correspond to the best score of '1', and the lowest of 1,100 USD, corresponding to the worst score of '6'.

Catalonia's GDP per capita in year 2013 was estimated by the Idescat (Catalan Institute of Statistics) at 27,298 euros. Considering that the average exchange rate in year 2013 was 1 USD = 0.783 EUR, the Catalan GDP in dollars was equivalent to 34,864 USD.

The yearly historical series since 2008 is as follows:

### **GDP per capita - Catalonia**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
GDP (EUR millions)	212,894	203,948	204,285	204,860	203,079	203,615
Population	7,357,506	7,439,311	7,481,935	7,512,893	7,497,218	7,458,842
GDP per capita, euros	28,935	27,414	27,303	27,267	27,087	27,298
GDP per capita, annual growth rates		-5.3 %	-0.4 %	-0.1 %	-0.7 %	+0.8 %

Source: Idescat.

Therefore, Catalonia's GDP per capita, even without being an independent state, would rank in the upper end of a score of '2' and, according to Eurostat data, above the UE-28 average of 25,700 euros, above other states like Spain (24,500 euros) and Italy (25,100 euros), and at a similar level to the United Kingdom (27,200 euros), and very close to France (27,800 euros).

It is important to mention that a negotiated transition with Spain towards independence would be positive not only to maintain and consolidate the present level of Catalan income per capita, but to enhance it, since Catalonia would benefit financially from the creation of the new state. This fiscal benefit would facilitate greater creation of wealth, since all these new available resources would have a multiplier effect on the Catalan economy.

Once this main element is analyzed, two more secondary but also significant elements —capacity for economic growth and economic diversity and volatility— should be looked at in order to complete the analysis of the economic area. If an economy, in addition to enjoying a good level of income per capita, has good growth potential and is adequately diversified, its initial score is confirmed. Conversely, an economy with doubtful growth potential which is highly concentrated in a few sectors would be subject to a negative adjustment of its initial score.

#### **4.2.2 Economic growth**

Generally, in order to assess a state's economic growth capacity, an analysis is made of the pattern of the GDP per capita over a 10 year period. This 10 year cycle considers actual historical data from the last 6 years, the estimate for the present year, and a forecast for the following 3 years.

Regarding Catalonia's actual historical data, it is necessary to refer to the previous table, where it can be observed that during the period 2008-2013 the Catalan GDP per capita experienced an average yearly contraction of 1.1 %. This data, despite corresponding to a period of deep economic recession, would lead automatically to

rescoring the initial score of the main element of the economic structure to a lower level.

However, according to the publication "Catalonia's macroeconomic scenario for 2014 and 2015", dated June 2014, prepared and published by the Economic Department of the Generalitat of Catalonia, the foreseen GDP growth rate is 1.4 % for year 2014 and 2.1 % for year 2015. These estimates confirm a trend reversal of the Catalan economy as the long economic crisis that has hit most of the European Union economies is slowly being overcome, in a greater or lesser degree, with a few exceptions.

Economic forecasting of any kind, even at short term, is very risky. At medium term, for years 2016 and 2017, it could even be qualified as temerarious. Nobody is in the position to foresee what will happen in the future, and less in the case of Catalonia. The Catalan people face a process of self-determination that their civil society and their institutions support in a peaceful and democratic manner, but they have as an adversary an intransigent Spanish state, which has been unwilling to negotiate the right to decide the political future of the Catalan people in any way. Bearing in mind that the self-determination process is expected to be quite complex and difficult to predict, the most logical option available is to consider an estimate based on the logic of the statistical tendencies, which would lead to estimate, although with reservations, that the Catalan economy would grow approximately 2.5 % in 2016 and up to 3.0 % in 2017. It must be insisted that this forecasting reflects only a statistical tendency and nothing else.

Considering the data and previous arguments, it's not clear if the initial score of '2' on the high end should be negatively adjusted or not. On the one hand, there is a historical negative trend during 2008-2013, and on the other, a clear switch of tendency in 2013, accompanied by positive perspectives of a growing recovery of the economic activity until 2017.

Once we analyze the second element of potential adjustment of the economic area — the diversity and volatility of the Catalan economy— a global assessment of the two elements of potential adjustment will be made to see how they influence the potential adjustment of the main element, that is, the level of GDP per capita.

#### **4.2.3 Economic diversity and volatility**

If a state has an excessively concentrated or volatile economic structure, the initial score should be negatively adjusted. An economy is not adequately diversified when a given activity represents more than 20 % of the total economy or if the economy is excessively and regularly exposed to natural disaster or is subject to the consequences of severe weather conditions that can negatively impact key economic sectors in a significant manner.

Clearly, the economies subject to the situations described above are more vulnerable than adequately diversified economies, which are much more flexible and better prepared to face difficult economic cycles. Moreover, it will be considered a positive element if these economies do not have to confront natural disasters and excessively adverse weather conditions on a regular basis or very often.

The following table shows how the Catalan GDP is distributed among activity sectors, using regional accounting data from the Spanish INE (Statistics National Institute).

#### **Catalan Gross Domestic Product at market prices as a percent of the total**

<b>Activity Sectors in %</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Agriculture, livestock, etc.	1 %	1 %	1 %	1 %	1 %	1 %
Industry and energy	21 %	19 %	20 %	20 %	21 %	21 %
Construction	12 %	12 %	9 %	8 %	7 %	7 %
Trade, repairs, transportation, hotels, restaurants, data processing and communications	29 %	29 %	30 %	31 %	32 %	32 %
Financial activities, real estate, professionals, scientific, technology, etc.	20 %	21 %	20 %	21 %	21 %	21 %
Public admin., defense, social security, education, artistic, recreational, sanitary and other activities	17 %	18 %	19 %	19 %	18 %	18 %
<b>TOTAL</b>	<b>100 %</b>					

Source: INE, regional accounting.

From the previous table it is clear that the Catalan economic structure is very diversified. Considering all six global activity sectors, and taking into account that the primary sector is either minimal or nonexistent, only the activity sector corresponding to services significantly exceeds 20 %.

The services sector, representing an average of 30 % of Catalonia's economic activity, includes a variety of diverse economic activities, which can be grouped as follows:

- trade and vehicle repairs
- transportation and storage
- hotels, restaurants and tourist services
- data processing and communications

The activity with more specific weight is trade and vehicle repairs, representing 13 % of total Catalan GDP. Therefore, it can be confirmed that the Catalan economy displays a highly balanced structural diversification among activities, and therefore, it shall be not necessary, according to the results obtained, to perform any negative adjustment of the initial score in the economic area.

In regard to the volatility of the Catalan economy, there is very little to say. One can once again point out the minor role of the primary sector, like agriculture, which is vulnerable to environmental factors, and the present relative weight of the

construction sector, which has significantly declined since 2010. The latter sector, which is very speculative, as has been demonstrated since the present crisis began, is increasingly less important to our economy.

The vulnerability of the Catalan economy to natural disasters and to adverse weather conditions is very limited, practically nonexistent. Neither the characteristics of our economy, our geographical environment or the climatic conditions of our region could anticipate, under normal conditions, that our economy might, at any moment, be negatively affected by any of these environmental factors.

In short, taking as a starting point the initial score of the main element, that is the GDP per capita, we would end up with a score of '2'. In the worst case, this score could be lowered to '3' as a result of current moderate growth outlooks. The key is in the assessment of this element of negative adjustment related to the capacity for growth of the Catalan economy. On the one hand, it turns out that there is a negative average growing trend during the 2008-2013 period, and on the other hand, there is current and medium term foreseeable solid and sustained growth projected for the coming years. Therefore, the score of the economic structure area would rank between '2' and '3'.

#### **4.3 Assessment of the score: institutional and economic profile**

As a conclusion of the two previous chapters corresponding to the institutional and economic profile, an independent Catalonia would be granted, in normal conditions, a potential score in this profile of between '2' that corresponds to a "very strong" profile, and '3' that corresponds to a "moderately strong" profile.

Bearing in mind all previous scores, it is considered that the score of the institutional and economic profile should be '2.5', that corresponds to a "strong" profile and that comprises a broad strip of "ratings", from 'AA+' to 'BB-', depending upon the results obtained in the second profile relative to the foreign sector, public finances and monetary policy, that shall be the subject of analysis in the following chapters.

### **5. Analysis of the foreign sector, public finance and the monetary policy profile**

As noted previously, the segment of the foreign sector, public finance and monetary policy is intended to reflect the sustainability of public finances and public debt from the perspective of the external position of the country, as well as the fiscal and monetary flexibility. The evaluation of this segment is constructed as the average of the scores achieved by the three areas concerned: balance of the foreign sector, management of public finances and monetary policy flexibility.

## **5.1 Foreign sector**

The foreign sector reflects the ability of a country to obtain outside funding needed to meet obligations for public and private sectors from non-residents. The score refers to the external sector transactions and positions of all residents against non-residents, as do all of these flows and stocks that affect competitiveness, the evolution of exchange rates, foreign investor confidence and, ultimately, the ability of the country to purchase and repay internationally.

### **5.1.1 The national currency in international transactions**

The first issue refers to the degree to which the national currency is used in international transactions. A better score is obtained by the countries that control a reserve currency or a currency widely used in international transactions. In these cases the currencies are used in financial transactions outside its borders, so that countries are less vulnerable to changes in the investment portfolios of international investors that in the case of other countries. This is the case of only the US, UK, Japan, France and Germany.

When the currency of a country is not a reserve currency or is not actively used in the context of international transactions, the score criteria combines the situation of external debt with the analysis of external liquidity.

On the other hand, if a country belongs to a monetary union, it receives a score based on its external position and on the currency in which it participates. Although members of a monetary union share a currency and common capital markets, the external liquidity and the balance of payments of individual members may vary strongly. Although a member shows considerable and sustained current account deficit, it is unlikely that there are pressures on the exchange rate for this reason, because the movements of the exchange rate is likely to be based on institutional, political and economic characteristics of the union as a whole. However, a large and sustained current account deficit of a member can be a sign of low competitiveness or an overleveraged economy, or both. The loss of competitiveness is unlikely attenuated following exchange rate adjustments and improvements may require an extended period of little or no growth, possibly in a deflationary environment. In contrast, the current account surplus of a single member of the union could be a sign of strong competitiveness and sustain a strong external creditor position.

### **5.1.2 Liquidity and foreign debt**

From the above, and assuming that Catalonia would remain in the monetary union that represents the Eurozone, its external score is derived from the analysis of external liquidity and foreign debt. The attributed scores range, as in the previous sections, between '1' and '6'.

At this point it should be noted that the data necessary to make these calculations for the Catalan economy taken individually are not available. When this gap arises it is reasonable to assign an initial score equal to that attributed to the "host country", that is, the country that issues the currency used by the country under analysis. This initial qualification is penalized if the lack of data is indicative of a higher credit risk, and additional penalties may apply depending on a number of subjective considerations.

In the case of the Catalan economy, the host country or reference in this study would be Spain. The ratios that the Spanish economy displays with the above mentioned external sector concepts are shown in the following table.

#### **Spain - External sector ratios (%)**

<b>Figures in %</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Gross External Financial Needs / Current Account Receipts + Usable Reserves	297.6	260.5	242.9	219.2	207.4
Narrow Net External Debt / Current Account Receipts	295.0	282.5	254.5	231.0	208.7

Source: S&P "Ratings On Spain Raised to 'BBB/A-2' On Improved Economic Prospects; Outlook Stable" May 23, 2014

The Gross External Financial Needs compared to the Current Account Receipts plus the Usable Reserves long exceeds 200%, while the ratio of Narrow Net External Debt on Current Account Receipts also exceeds 200%. As a result, the score would be at the lowest point, that is, a level of '6'.

Despite this lack of data, some estimations conclude that Catalonia's score, in this section, would be higher than the current one for Spain. The data suggest a broadly positive Catalan balance of goods and services, which would result in a current account balance which is less negative or more positive than the Spanish one.

The data of the external balance of goods and services, according to the national accounts prepared by Idescat, suggest broadly positive results (Spain + abroad, in terms of contribution to GDP), reaching 10% of GDP in 2013, one of the highest ratios in the EU. This development is the result of a slight decreasing trend of the traditional positive balance towards Spain, accompanied by a change in sign of the balance abroad, going from negative to positive in the crisis years. The turnaround in the foreign balance is the result of the positive balance of tourism which has not been affected economically by the recession and a substantial improvement in the balance of goods and services, except tourism. In the evolution of the balance of goods and services, not counting tourism, the dynamism of exports abroad should be noted, which have maintained their upward trend, despite the crisis, while imports suffered a significant slowdown because domestic consumption and investment have decreased.

<b>CATALONIA'S EXTERNAL SECTOR INDICATORS</b>								
<i>Million euros</i>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>External sector balance (1) (2)</b>	<b>6.891</b>	<b>3.669</b>	<b>4.791</b>	<b>9.513</b>	<b>11.131</b>	<b>14.735</b>	<b>17.321</b>	<b>21.773</b>
Balance with abroad (2)	-11.364	-13.892	-9.743	-771	-487	3.850	8.810	11.081
<i>Balance of goods and services except tourism</i>	-17.843	-20.453	-16.458	-7.322	-7.364	-3.749	828	2.559
<i>Balance of tourism (2)</i>	6.479	6.561	6.716	6.551	6.876	7.599	7.981	8.522
Balance with the rest of Spain	18.255	17.561	14.534	10.284	11.618	10.885	8.511	10.692
<b>Balance of foreign investment in Catalonia</b>	<b>-3.770</b>	<b>-4.538</b>	<b>-3.990</b>	<b>-753</b>	<b>2.731</b>	<b>145</b>	<b>685</b>	<b>1.665</b>
From overseas to Catalonia	2.659	2.621	2.344	1.569	4.824	3.044	2.669	3.511
From Catalonia to overseas	6.429	7.160	6.334	2.322	2.093	2.900	1.984	1.846
<b>Total balance loans-deposits</b>	<b>116.644</b>	<b>149.392</b>	<b>157.615</b>	<b>152.097</b>	<b>150.960</b>	<b>150.421</b>	<b>125.242</b>	<b>96.065</b>
Change balance loans-deposits	26.849	32.748	8.223	-5.518	-1.137	-539	-25.179	-29.177
(1) Includes balance abroad and the rest of Spain.								
(2) The balances associated with foreign trade are presented in contributions to gross domestic product								
SOURCE: Idescat and the author's own calculations								

As for the other components of the current account, it should be noted that the current transfers balance would be largely negative, as these include tax payments to the central Spanish government, which would disappear when independence is proclaimed. Emigrants' remittances abroad also would reinforce the negative sign as well as the balance of flows with the European Union. Finally, it is estimated that investment income would be negative because of the debt service. In any case, the outlook would be positive once independence is achieved thanks to the disappearance of transfers related to the payment of current central government taxes.

Regarding the financial account of the balance of payments (change in assets and liabilities), the data relating to foreign investment in Catalonia shows that the flow of foreign investment in Catalonia has remained relatively stable in recent years and it doesn't appear to have suffered the effects of the economic downturn. Meanwhile, the flow of Catalan investment abroad has been volatile: high in the years before the crisis, with a significant decline in recent years. The balance of these flows is usually negative (capital outflow: the change in assets exceeds the change in liabilities) except for some years and positive more frequently in recent years (capital inflows).

Regarding direct investment flows with the rest of Spain, there is high uncertainty, although it could boast that they are negative (Catalonia invests more in the rest of Spain than the rest of Spain does in Catalonia), given the structure of both financial and industrial economies.

Another component of the financial account would be banking transactions, and here data for the balance of loans and deposits in banks based in Catalonia traditionally is available and regarded as negative, showing a decline of credit that has not been followed by a decline of deposits, so that the traditional negative deposit-loans balance has decreased. This would result in a negative cash flow in recent years with respect to the outside.

Indeed, as noted above, currently available data indicates a situation of the current balance of the Catalan economy better than Spain as a whole, and therefore it could

provide a basis for thinking about a much better external liquidity position. Although these data cannot be quantified with absolute accuracy, we are inclined to a score of '5', more realistic and more in line with future expectations outlined above.

The initial external score is subject to adjustments depending on certain conditions. Elements that point toward improvement include the continued current account surplus over time, in a state that has an active currency used in international trade on the one hand and, on the other hand, a strong net external position. None of these two elements could be applied to Catalonia.

Elements that would determine a negative adjustment include the existence over time of a high and continued current account deficit, indicative of a structural problem of competitiveness or domestic overleverage, or exposure to a risk of deterioration of external financing caused by different circumstances. In a background of normalization of the economic and financial situation of an independent Catalonia there would be no need to implement downward adjustments because of these items.

Given the above considerations, and assuming the uncertainties arising from the lack of data needed to determine the ratios that would clarify the external situation of the Catalan economy, both in terms of balance of payments and the external position of assets and liabilities, we must assess that the score relating to the external liquidity and international investment would be one category higher than that which corresponds to the whole of the Spanish economy, that is, a level of '5', on a scale of '1' to '6'.

## **5.2 Public finances management**

The rating of public finances reflects the sustainability of general government deficits and debt burden. This measure considers the fiscal flexibility, the long-term trends and vulnerabilities, the debt structure and the access to financing, and the potential risks of negative contingencies. For the analysis of these dimensions, we consider two elements: the evolution of public finance and fiscal flexibility, and the debt burden, which are described separately. As in the above items, the rating ranges on a scale from '1' to '6'. '1' corresponds to the best rating and '6' to the worst.

### **5.2.1 Public finances and fiscal flexibility**

To determine the rating on budgetary discipline and fiscal flexibility, first we obtain an initial rating based on the variation of projections of general government debt, calculated as a percentage of GDP. Afterwards, the initial rating may be subject to a positive or negative adjustment, according to a number of elements.

In an independent Catalonia the fiscal deficit with the Spanish state would vanish. The fiscal deficit with the Spanish state averaged 8% of GDP in the period 1986-2011, so

the budget deficit of the Government of Catalonia, which decreased from 4.6% of GDP in 2010 to 2.0% of GDP in 2013, would change sign. The Government's public spending is now low relative to GDP. Although logically it should increase with the assumption of new state structures, the increase in spending would be substantially less than the additional income.

Assuming the maintenance of the current tax burden with respect to income, although additional spending could rise, in addition to the assumption of the new structures of state, the current public deficit of Catalonia caused by the economic crisis and financial stifling from the Spanish state would transform into a surplus. Thus, the public debt would decrease gradually to strengthen the solvency of the new state, as projected in the following table. It should be stressed that the projections provided are cautious because, as mentioned, the average fiscal deficit is 8% of GDP and most accurate studies report an annual gain due to independence of at least 5% of GDP. Therefore, the initial score would be '1', the strongest.

<b>PUBLIC FINANCES OF AN INDEPENDENT CATALONIA</b>			
	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>GDP at market prices (million EUR)</b>	213,684	220,559	229,902
<b>General government budget balance (% of GDP)</b>	1.3	2.1	2.8
<b>General government debt (% of GDP)</b>	70	66	61
<b>Interest expenditure (% of revenues)</b>	7	6	4

Source: GDP 2015, Dept. Economia i Coneixement de la Generalitat de Catalunya; other, internal figures.

As for tuning elements, the positive ones do not apply, since the government would not have a large amount of cash nor would it have much room to raise taxes or make budget cuts. The negative elements of adjustment would not be relevant either. The revenues do not show a particular bias of volatility, the human development index is above the European average and, therefore, there are no extraordinary spending pressures, and tensions related to expenses because of the aging population are not yet in sight.

### **5.2.2 Debt burden**

The rating of the debt burden reflects the level of sovereign debt in the future. The elements relevant to the rating of the debt burden are: the level of debt in relation to GDP, the interest expenditure in relation to public revenues, the debt structure, and the access to funding. This rating also reflects the risks from negative contingencies that could increase the debt if they indeed occurred. The combination of these elements determines the rating for the public debt burden. First you get an initial rating according to two key measures of the level of debt and the cost of debt. The initial rating may be subject to positive or negative adjustment depending on different circumstances.

Regarding the debt, the debt level of the autonomous government of Catalonia at the end of the third quarter of 2014 in addition to the debt of Catalan local government came to about 33% of GDP. The level of public debt of an independent Catalonia would depend on negotiations on the distribution of assets and liabilities under international law that regulates the succession of states. With no agreement, Catalonia would not have to assume the debt issued by the Kingdom of Spain, and the level of public debt would then be around 33% of GDP. This is a low level compared with the average of the European Union which is around 90% of GDP and the Eurozone which is around 96% of GDP.

However, the most likely scenario is an agreement with the Spanish state. In that case, Catalonia would assume a proportional part of the Spanish central government debt. The percentage of this debt that would be taken on by an independent Catalonia would depend on the outcome of negotiations. Here, in line with the document of the Advisory Board for the National Transition (Consell Assessor per a la Transició Nacional, CATN) titled "The fiscal and financial viability of an independent Catalonia" we assume that the distribution would be made according to the pattern of the geographical distribution of Spanish state expenditures. This makes sense because a debt is incurred in order to advance specific expenses. However, note that other possible distributions could be based on the population or income level. Thus, assuming that an independent Catalonia would assume a proportion of the Spanish central government debt according to the average percentage of spending of the Spanish state in Catalonia over the last six years, according to the average life of Spanish public debt, plus the debt of the autonomous region and that of Catalan local government, results in a level of gross public debt of around 74% of GDP, still below the averages for the EU and the Eurozone. For the level of net public debt we have to subtract the most liquid assets from the gross public debt. In addition, note that when GDP is soon published with the new methodology SEC-2010 this ratio will drop some points, since with recent accounting changes Catalonia's GDP will probably rise, but that is not relevant to the rating established here.

As for borrowing costs, they would benefit from the outlook of very low global interest rates in the coming years. Revenue, which would be significantly higher since it would include all the tax receipts generated by the Catalan economy, would be a little over 5% on average in the coming years, with a downward trend. Thus, the initial score of both measures would be '4' regarding this section.

With respect to the tuning elements, neither the negative nor the positive are relevant. Regarding an additional possible negative adjustment for contingent liabilities, related to financial sector risks, non-financial corporations and public sector and off-budget guarantees, they seem limited. In any case, the Catalan financial institutions have successfully passed the European Central Bank's recent stress tests. Therefore, the rating of this item would remain at '4'.

Consequently, the rating of the area of public finances would be the average of '1' and '4', that is, '2.5'.

### **5.3 Monetary policy: flexibility**

The rating of the monetary policy area reflects the extent to which the monetary authority of the sovereign state can fulfill its mandate while supporting economic growth and alleviating economic and financial hurdles. A flexible monetary policy can be an important element in preventing the deterioration of the sovereign credit rating in times of stress.

The rating of a sovereign monetary policy comes from the analysis of the ability of monetary policy to support sustainable economic growth, to facilitate the regulation of inflation over a business cycle and from its impact on the real economy.

The initial rating is the average of the score of the exchange rate regime and that of the credibility of monetary policy. Scores, as for the other areas, range on a scale from '1' to '6', with '1' being the highest rating and '6' the lowest. Assessments, as in the institutional and governmental area, are rather qualitative.

We assume that, at least after a transitional period, an independent Catalonia would form part of the Eurozone. Indeed, in the case of a negotiated departure from Spain, it seems likely that Catalonia will belong to the Eurozone. In fact, there are other options, as Catalonia could use the euro after securing a monetary agreement with the European Union, which would only need to be approved by a qualified majority. The option of issuing its own currency also always remains. That would be perfectly feasible given the economic size and the level of development of the financial system. Here we assume that Catalonia remains part of the Eurozone, which is the scenario that seems most likely.

The monetary rating of sovereign states in a monetary union is obtained in a two-stage process. In the first phase an initial rating of the whole monetary union is assigned. In the second phase, the initial rating is downgraded by one point to reflect that members of a monetary union in general have less flexibility in relation to sovereign states that have their own central bank. In addition, the rating may be reduced by another point if the member economy of the monetary union is not synchronized with the rest of the monetary union.

According to the above criteria, the initial rating of the euro would be '1' because the euro is a reserve currency, like the dollar and the yen. Furthermore, the rating attributed to the credibility of the monetary policy of the European monetary union, for obvious reasons, would also be '1'. Therefore, the initial rating of the euro and Eurozone would be '1'.

#### 5.4 Assessment of the score: foreign sector, public finance and monetary policy profile

The rating of an independent Catalonia, initially, would therefore be '2' for the reasons mentioned above. There would be no reason for an additional downgrade due to lack of synchronization with the rest of the Eurozone. However, one should consider other elements that might decrease the rating as much as three points in the event of major problems in the transmission of monetary policy or significant restrictions on capital movements. But these corrective elements would not be applicable. Therefore, the monetary rating is '2'.

### 6. Final conclusions: estimating the potential credit rating of a Catalan state

In accordance to the previous chapters, the scores obtained with respect to the two profiles analyzed are as follows:

#### Average scores of the analyzed profiles

Profiles	Scores
Institutional and economic profile	2.5
Foreign sector, public finance and monetary policy profile	3.2

Source: Compiled by author.

These two scores approximate a credit rating of 'A+', on the lower end, very close to 'A'. Therefore, an independent Catalonia would surely be ranked in an investment grade zone, and with considerable potential for progress.

The potential improvement of the credit rating of an independent Catalonia with respect to its present rating of 'BB', in accordance with the conclusions of this study, is very significant: 7 levels.

Credit rating	Sovereign risk
...	
A+	Catalonia (independent)
A	
A-	Basque Country, Navarre
BBB+	
BBB	Spain
BBB-	
BB+	
BB	Catalonia (at present)
...	

The 'A+' rating is actually only granted to Israel and Korea. With this credit rating, Catalonia would rank two categories above the Basque Country and Navarre, a fact that would confirm that the conclusions of this study seem reasonable, since an independent Catalonia in no case should be granted a lower or equal rating, but rather a higher one than these two Spanish autonomic communities. The potential and the diversification of the Catalan economy make this fact evident.

The 'A' rating is at present granted to the Ras Al Khaimah and Sharjah Emirates, to the Sultanate of Oman, Slovakia, and Trinidad & Tobago and the 'A-' to states like Botswana, Curaçao, Ireland, Latvia, Lithuania, Malaysia, Poland and Slovenia. An independent Catalonia, given all its potential, should certainly also have a higher credit rating than these states.

Therefore, it again seems clear that an independent Catalonia would merit a much higher credit rating in the international financial markets than it has currently. At present, the international financial markets warily observe a Catalan economy without any kind of autonomy, which is almost completely dependent on the Spanish state in fiscal and economic matters. Catalonia's lack of management power over the resources generated by its own economy slows down the possibilities for its economic development and the prosperity of future generations of Catalans, and at the same time impacts its credit rating very negatively in the international financial markets.

Email addresses of authors

Joan Elias:           jelias@economistes.com

Joan M. Mateu:       Jmmateu1953@gmail.com