

BBVA Research

Catalonia Economic Outlook

1st SEMESTER 2018 | SPAIN AND PORTUGAL UNIT





Contents

1. Editorial	3
2. Outlook for the Catalan economy	5
Analysis of the economic outlook for Catalonia with the BBVA Economic Activity Surve Fourth quarter of 2017	ey. 27
3. The territorial dynamics of the Spanish population: 1950-2016	30
4.Tables	37
5. Glossary	40

Closing date: 8 February 2018



1. Editorial

In 2017, the growth of the Catalan economy could have reached 3.0%, but it is expected that the slowdown will continue, reaching 2.1% in 2018 and 2.0% in 2019, thus being much more intense than in the rest of autonomous communities. Should this scenario materialise, GDP growth in Catalonia will have posted six years of epansion, and in the next two-year period 136,000 new jobs will be created, reducing the unemployment rate to 9.6% by the end of 2019. In any case, the political events affecting the Catalan economy mean that the uncertainty about these forecasts will be even higher than on other occasions.

The scenario presented in previous publications by BBVA Research already suggested a slowdown: the depletion of demand retained by the crisis, the ECB's effort to begin normalising monetary policy, the gradual increase in oil prices (although still low) and the recovery of the competing tourist markets are factors that contributed to reducing demand in Catalonia¹ and, therefore, to slow down the economy in the second half of 2017 and into 2018.

However, from the summer onward, two events not related to the economy have shaped the setting. Chronologically, the first one concerns August's terrorist attacks on the Ramblas in Barcelona and Cambrils. BBVA Research estimates predicted a 2% reduction in overnight stays in Catalonia in the following months as a result of the attacks. The information available a posteriori indicates that these had a limited economic, territorial and short-term economic impact, and that spending in Catalonia was considered to have resumed its normal pattern within a few weeks.

The second is the increasing uncertainty over economic policy, reaching historic highs in the months of October and November, with distinct effects according to the demand component being analysed. Financial variables, such as stock market prices or the risk premium, showed a negative reaction that has not yet fully recovered, although the uncertainty is now clearly lower than it was three months ago. On the other hand, in private consumption, the impact may have been intense, but for now it seems to have been short-lived. In tourism, however, the effects seem to be more persistent. In addition, some indicators related to investment also show a lower dynamism in the final part of the year – potentially linked to the limited confidence of the agents. The effects on investment may not be immediate and, therefore, we need to wait some months or quarters before we can have an accurate view of the impact. Lastly, the lack of a budget by the Generalitat (and the extension of the State's budget) in 2018 is affecting the capacity of the public sector to boost the economy in the short term, which could have a differential effect compared to other communities where there is already a budget and the volume of debt is lower.

With the information known to date, BBVA Research estimates that the effect of the greatest uncertainty on the Catalan economy will reduce the GDP growth of 2018 by 0.7 pp and by nearly 0.3 pp in 2019, which will mean 35,000 fewer jobs than would have been created in a scenario without uncertainty. In addition, the high degree

^{1:} See Catalonia Economic Outlook, 1st half 2017, or the Regional Observatories of the third and fourth quarters of 2017.All of them (in Spanish) are available at https://www.bbvaresearch.com/



of integration of economic activity with that of other regions (through business relationships, tourism or business links) means the reduction in growth will also be transferred to other communities. The Ebro River Valley and the Mediterranean, having closer economic ties with Catalonia, may suffer the effects the most.

In any case, employment has continued to perform positively, not only during the fourth quarter, but also in January 2018, which could be explained by several criteria. Firstly, monetary policy is keeping financing costs low, and is continuing to drive investment and consumption. Secondly, the Catalan economy had already built up a strong momentum. Thirdly, the global economic recovery, and in particular that of Europe, is having a favourable impact on exports of goods, and means that the effects on foreign tourism are not so intense. Finally, the apparent perception of the shock only being temporary, as the BBVA Research indicator that tracks uncertainty in economic policy is down significantly compared with the highs posted in October and November. For its part, BBVA's Economic Activity Survey in the fourth quarter indicates that prospects for the first quarter of 2018 remain favourable, yet fall short of the levels of optimism observed in the third quarter and earlier. Thus, if the impetus of external factors offsets the impact of the uncertainty, growth may be greater than what is being forecast in this review.

In the medium to long term, it is necessary to implement policies to reduce the current level of uncertainty. In addition, some improvement is necessary in how the solvency of the regional accounts is perceived, which calls for rapid progress in the reform of the regional financing system. Thirdly, there is a need to make progress on measures to increase productivity. The relative evolution of Catalonia with respect to the comparable European regions (by size and productive structure) shows that between 2010 and 2015 the growth of productivity in Catalonia was lower than that of the leading regions in Europe, which is at least partly limiting the progress of GDP per capita. Additionally, although the level of GDP per capita from before the crisis has already been surpassed, employment is still 9% below the peak reached in the previous expansionary era. Therefore, it is necessary to continue focusing on policies that reduce the unemployment rate, temporality and precariousness in general in the labour market. Certainly, the dynamism of employment in recent years and what is expected in the projected horizon will reduce the unemployment rate to 9.6% by the end of 2019, below the level in 2008. But in the absence of reforms, this could lead to tensions in the labour market, and in particular to insufficient skilled labour for specific activities, which could result in upward pressure on wages. Therefore, to continue advancing towards convergence with the main European regions, it is necessary that the increases in labour costs be accompanied by productivity gains that allow them to maintain their levels of competitiveness. In this sense, we must take advantage of the opportunities of the fourth industrial revolution, with policies that soften the transition, reduce costs and boost profits.

Finally, this edition presents an analysis of the evolution of the population's territorial dynamics. Catalonia, which sixty years ago had a more favourable demographic pyramid than Spain as a whole, has progressively converged towards an ageing pyramid of similar characteristics to the nation as a whole. The challenges derived from this problem in the future (pensions, adaptation of the labour market, public services etc.) will therefore be similar.



2. Outlook for the Catalan economy

The Catalan economy grew at a rate of 3.0% in 2017, 1.0 pp above its average growth since 1991, in line with the estimates by BBVA Research. This result means the consolidation of four consecutive years of economic recovery, and is in line with the estimates presented in the BBVA Research Regional Observatories of 4Q17 and 1Q18², but it is 0.3 pp lower than the forecast published in the previous edition of Catalonia Economic Outlook³.

The economic scenario of Catalonia in the second half of 2017 was marked by two non-economic events. Firstly, the terrorist attacks on the Ramblas in Barcelona and the town of Cambrils on 17-18 August, with a direct impact on the tourism sector. Secondly, the increase in political tension in the months of October and November and its effects on the uncertainty in economic policy. In this case, the impact seems to be that, in addition to the tourism sector, it seems to have also been observed in the consumption of durable goods and in the signals available to us so far on investment. These two events, which were not part of the expected scenario before the summer, are likely to have contributed to the slight deceleration of the Catalan economy in the latter half of 2017, but above all, they have conditioned the forecasts, which are now lower than they were six months ago, when it was expected that Catalonia's GDP could grow by 2.8%. Thus, the Catalan GDP is expected to grow 2.1% in 2018 and 2.0% in 2019.

In the second half of 2017, the MICA-BBVA model⁴ estimates that the growth of Catalonia's GDP would have turned down the slightly upward profile of the first half, from 0.8% QoQ in the first two quarters of the year to 0.6-0.7% QoQ in the third and fourth (see Figure 2.1)⁵. This would place Catalonia's growth slightly below figures recorded for Spain as a whole in the last six months. Along the same lines, the BBVA Economic Activity Survey for the fourth quarter of 2017 shows that in Catalonia there was a less positive perception of activity than in the first half. There is now a negative balance of responses regarding how activity evolved in the fourth quarter, but the favourable outlook stands for what may unfold in the first quarter of 2018 (see Figure 2.2). In any case, the pattern of behaviour in the already-known data highlights some issues: the intense impact on spending in October (possibly, as a precautionary impulse to save), and appreciable signs of impact on the housing and tourism market, yet without having significant effects on employment. This indicates that the regional economy performed significantly less favourably than as expected in the previous issue of the Catalonia Economic Outlook, but still sufficient to achieve a growth of 3.0% in 2017.

^{2:}BBVA Research Regional Observatories for the fourth quarter of 2017 and the first quarter of 2018 can respectively be found at https://www.bbvaresearch.com/wp-content/uploads/2018/02/Observatorio-Regional-4T17.pdf i and https://www.bbvaresearch.com/wp-content/uploads/2018/02/Observatorio-Regional-1T18.pdf 3:The edition for the 1st half of 2107, published on 26 June, can be downloaded using this link:https://www.bbvaresearch.com/wp-content/uploads/2018/02/Observatorio-Regional-1T18.pdf

^{4:}See MICA-BBVA:A Factor Model of Economic and Financial Indicators for Short-term GDP Forecasting available

here:https://www.bbvaresearch.com/en/publicaciones/mica-bbva-a-factor-model-of-economic-and-financial-indicators-for-short-term-gdp-forecasting/

^{5:} The IDESCAT estimates also indicate a slowdown in the growth of GDP in 3Q17, but from higher figures, 1.0% QoQ in 2Q17 and 0.8% in 3Q17.



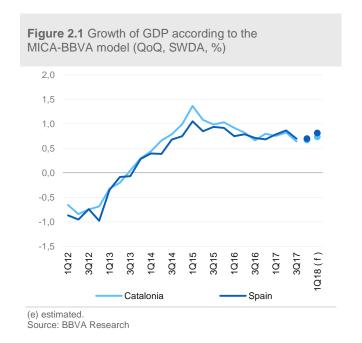
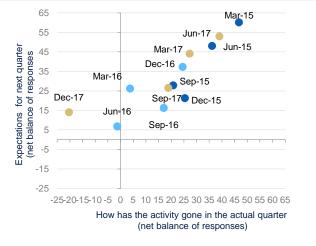


Figure 2.2 Catalonia: activity and perspectives according to the BBVA Economic Activity Survey (%, balances of extreme answers)



Source: BBVA

The solidity of growth has several contributing factors, already pointed out in the previous edition, such as solid world growth (which is being revised upwards), relatively low oil prices and an expansive monetary policy, among others, which seem to be acting as supports for economic activity: On the other hand, the reduction in the tailwinds, which is curbing domestic demand and, in particular, household consumption, the smaller rise and the reduced margin of Catalan fiscal policy were factors that are expected to have contributed to slowing down the economy towards the end of 2017. This already augured a slowdown in Catalan GDP to 2.8% in 2018. However, the events of summer and autumn have been added to this scenario, and now it is expected that growth will fall to 2.1% in 2018 and 2.0% in 2019. This means that after having created 215,000 jobs in the 2016-2017 biennium, the number of people in employment will increase by 136,000 in the next biennium, which would allow a reduction in the unemployment rate to 9.6% at the end of the period.

Household spending slowed down in the second half, due to reduced tail winds and increased uncertainty

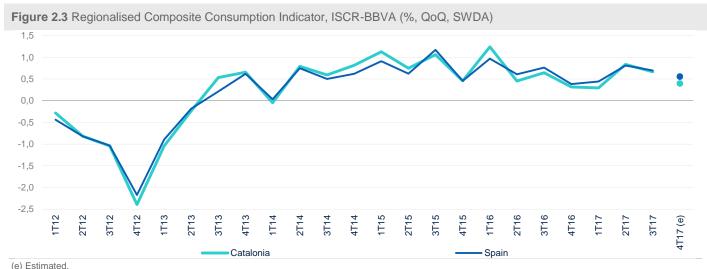
Spending on private consumption continued to grow in Catalonia in 2017, supported by low oil prices, the maintenance of interest rates at low levels and the increase in disposable income associated with the increase in employment.

The BBVA Composite Consumption Indicator for Catalonia – ISCR-BBVA⁶- which brings together the common signal of the main available indicators of household spending in the community, **estimates that in 2017 Catalonia's domestic consumption grew by 2.1%** (3.1% in 2016). This means that the growth of Catalonia's consumption is

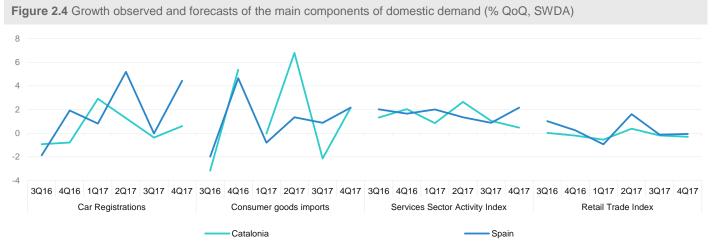
^{6:}The Regionalised Composite Consumer Indicator, which is prepared by BBVA Research, is based on the main partial cost indicators available at regional level: retail sales, vehicle registrations, activity index in the services sector, imports of consumer goods, fuel and domestic consumption in Spain. The methodology used for the construction of the indicator is based on the analysis of the main components. For more information, see R.1 Does the evolution of domestic demand affect the growth of exports? Spain Economic Outlook, 4th Quarter 2015, BBVA Research.



below that observed in the country as a whole (see Figure 2.3). The improvement that seemed to be anticipated in the second quarter of the year (after a weak 1Q17) was not confirmed in the second half, and all the partial indicators indicated worse figures than in the first half (see Figure 2.4). As noted in the previous issue of this publication, among the reasons that explain the deceleration we should point out the reduction of the demand retained during the period of crisis and the factors that have acted as support for household spending, such as the reduction in the price of oil or the fall in interest rates, which would have combined, in the last quarter, with the increased uncertainty in Catalonia.



(e) Estimated.
Source: BBVA Research based on data from INE, Datacomex and HAVER



(e) estimated.

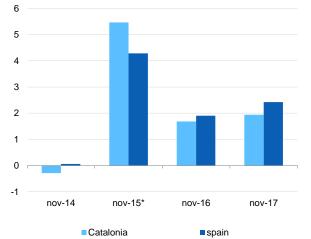
Source: BBVA Research based on data from INE, Datacomex and DGT



Continuing increase in regional spending, despite the exceptional situation

Despite the situation of exceptional control by the central government, the budget implementation data available up to November 2017 confirm the acceleration of the growth in final consumption expenditure by the Generalitat, the Regional Government of Catalonia, to 2.0% (lower than the increase by the autonomous regions as a whole of 2.6% YoY). Similarly, Catalonia would have returned to the expansion of investment spending, but at a moderate rate of 2.2% YoY (see Figures 2.5 and 2.6).

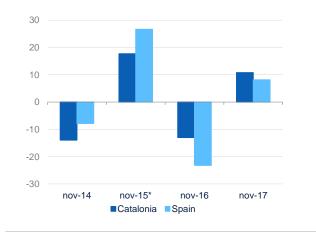
Figure 2.5 Generalitat de Catalunya: nominal final consumption expenditure*. Accumulated from January to November (%, YoY)



(*) Approximation to nominal final consumption expenditure, excluding fixed capital consumption.

Source: BBVA Research based on MINHAFP data

Figure 2.6 Generalitat de Catalunya: gross fixed capital formation. Accumulated from January to November (%, YoY)



(**) Investment by Catalonia for 2015 filtered from the regularisation of transactions in 2001.

Source: BBVA Research based on MINHAFP data

Driven by the territorial entities, public works tenders grew by more than the State as a whole

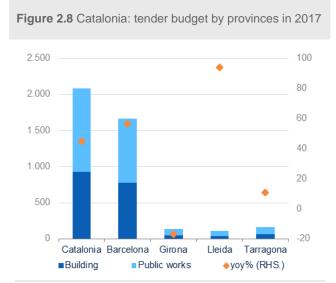
In 2017 tenders for new public works in Catalonia increased by 45.2%, 7.4 pp above the increase in the State as a whole (see Figure 2.7). This increase was due, basically, to building (+50.8%, vs. +38.5% in Spain). Civil works increased by 41.1% compared to 2016, 3.7 pp more than Spain as a whole. The breakdown by categories in the first three quarters of the year (period for which data with this detail is available) shows that what benefited the most were works of urban planning, construction and improvement of roads. Within building, the bulk of the spending went on education and health use.

The provincial breakdown shows that in the first nine months of 2017, the number of tenders grew in all provinces except in Girona (-9.0%), which contrasts with the increase of more than 55% in the previous year. The largest increase was observed in Lleida (113.2%) but this province only accounts for 5% of the amount of tenders that are allocated in Catalonia for the whole year. In Tarragona, tenders grew by 8.5% and in Barcelona, the province that absorbed 80% of last year's imports, the increase was 54.7% (see Figure 2.8).



By public bodies, the increase in tenders in 2017 is explained by the efforts of the Territorial Agencies (+69.3% YoY), while the financing from the State decreased by 18.8% year-on-year. As a result, the weight of the State in tenders for public works in Catalonia fell to 15.3%, the lowest level since 2011.

Figure 2.7 Public works by type of works: contribution to year-on-year growth in 2017 (percentage points)



Source: BBVA Research based on Ministry of Public Works data

Source: BBVA Research based on SEOPAN data

Investment in Catalonia showed signs of weakness in 2017, which increased in the final part of the year

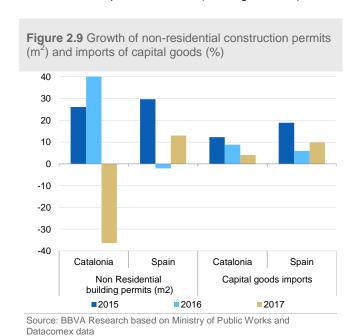
In 2017 the construction of non-residential buildings grew less than Spain as a whole (in the absence of the figure for the month of December). In Catalonia, the surface area receiving permits for the construction of buildings destined for non-residential use⁷ decreased by 35.6% YoY between January and November, which contrasts with the increase of 11.9% in Spain as a whole. The breakdown by type of construction shows that most of this decline was due to the contraction in the construction of buildings destined for commercial and storage use and, to a lesser extent, those destined for offices and tourist services. By contrast, the surface area receiving permits for works for agricultural and industrial use showed year-on-year increases in the first eleven months of 2017.

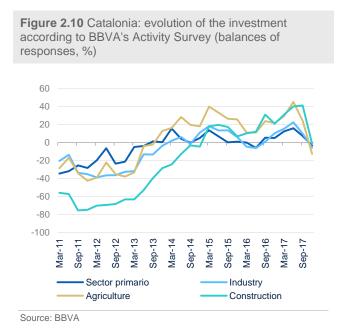
Meanwhile, imports of capital goods showed a slowdown in 2017 (see Figure 2.9). With the information known up to November, it is estimated that purchases of capital goods abroad would have increased by a nominal 4.1%, almost half of the figure for 2016 (+8.8%). This contrasts with a favourable evolution in Spain as a whole, where they were thought to have accelerated (+9.9% to 2017, after growing 6.0% to 2016). This lower dynamism of Catalonia is explained by the lower figures in all quarters, but in particular by the fall in the second quarter (-2.6% QoQ SWDA) and the one that is likely to be observed in the fourth (estimated, -5.4% QoQ, with information up to November).

^{7:} Buildings destined for commercial and storage services, agricultural and livestock activities, industrial, offices, tourism and recreation and transport services, among others.



Finally, the results of the BBVA Survey of Economic Activity (EAE-BBVA) for the fourth quarter (carried out in the central weeks of December) show that the recovery in the tone of investment which was progressively spreading across the various sectors could have been truncated. Although opinion indicators may tend to overreact whenever there is a tension, it is relevant that they have all returned to negative values, something which has not been observed since the third guarter of 2013 (see Figure 2.10).





Residential demand evolved favourably until the third quarter, but construction activity is weakened in the second half of 2017

The data from the first nine months of 2017 shows the good tone of housing sales in Catalonia, and this dynamism continues to be translated into the prices, making it one of the regions where the housing has appreciated the most in the last few quarters. But in the construction activity band a contraction can be observed, with a decrease in the number of new construction permits signed in the second part of the year.

In the first three quarters, the sale of housing grew above the figure for Spain as a whole. In the cumulative total between January and September, 65,163 homes were sold in Catalonia, 20.6% more than in the same period of the previous year (+17.8% in Spain) according to data published by the Ministry of Public Works. The average growth in the first three quarters was 4.7% QoQ (SWDA) with an increasing trend (see Figure 2.11).

Between January and September of last year, the most dynamic demand segment was that of buyers in other autonomous regions (+45.5% YoY). But the low preponderance of these buyers in the market (3.1% of transactions, compared to 10% on average for the rest of the autonomous regions) meant that they had less of a repercussion on the Catalan real estate market. The main market of origin of these buyers was Madrid, which accumulated just over half of the purchases made by residents from other autonomous regions. Behind Madrid residents came those of Zaragoza (17% of purchases by residents from other autonomous regions) and the Balearic Islands (12%).



The second most dynamic segment was that of foreigners: their purchases increased by 22% in the first nine months of 2017, 7 pp above the average increase in Spain. These transactions accounted for 16%, in line with the weight of foreigners in Spain as a whole (17%). Finally, buyers residing in the same autonomous region increased their transactions by 19.5% YoY up to September, marginally above the 18.6% observed in Spain as a whole. As a result, the weight of Catalan buyers in the regional market rose to 80.5%, 7.5 pp above the national average.

All the provincial demarcations show favourable behaviour in the mentioned period, but with significant differences. Thus, in Girona, sales increased by 23.6%, and in Barcelona and Tarragona they did so by 20.8% in each demarcation, while in Lleida the growth was 8.7%. As a result, the relevance of the markets has been maintained: Barcelona accounts for 69% of the operations, Girona and Tarragona about 13% each and Lleida around 5%.

The price of housing in Catalonia continued to grow dynamically.Between January and September, prices increased at an average annual rate of 5.3%, more than doubling the increase observed in Spain as a whole (2.2%). As a consequence, since touching a low point last September, the price of housing in Catalonia has appreciated by 13.1%, 7.3 pp above the average cumulative increase in Spain, and is already at €1,871.4/m2. The largest increase occurred in the province of Barcelona, with an increase in the first three quarters of the year of 6.4% YoY, while in Girona it was 2.6% and in Tarragona it was 1.2%. Meanwhile, in Lleida the price remained practically stable (-0.1%). The highest price increases among the municipalities with more than 25,000 inhabitants are concentrated in the metropolitan area of Barcelona: Sant Cugat del Vallès (12.9%), Sant Joan Despí (11.9%), Cornellà de Llobregat (11.4%), L'Hospitalet de Llobregat (10.1%) and Montcada i Reixac (10.0 %). The lowest performing areas were Vic and Reus, with contractions of 3.2% and 2.1%, respectively.

In anticipation of learning the data for December, permits for new housing projects in Catalonia grew again, accumulating four years of significant increases and a dynamism that was higher than the Spanish average. In particular, 9,429 permits were registered in Catalonia between January and November, 32.1% more than in the same period of 2016 (5.8 pp more than the increase in Spain as a whole). However, the quarterly profile shows a declining trend. Thus, once we have corrected for seasonality and calendar effects, it can be observed that in the first six months of the year the quarterly growth was 12.3%, but in the second half the forecasts (made with the information up to November) indicate that there could be a quarterly decrease of 11.4% (see Figure 2.12). By provinces, in Barcelona alone the number of permits grew in the first eleven months of the year (+44%.0% YoY), while in the other provinces they are down, most notably in Lleida (see Table 2.1).



Figure 2.11 Catalonia: housing sales (SWDA data)

25.000

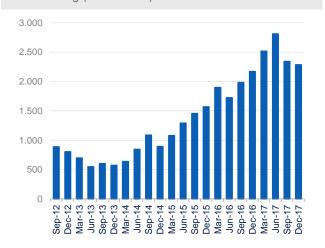
10.000

15.000

5.000

Source: BBVA Research based on Ministry of Public Works data

Figure 2.12 Catalonia: permits for construction of new build housing (SWDA data)



(*) 4Q17 estimated with information up to November Source: BBVA Research based on Ministry of Public Works data

Table 2.1 Catalonia: provincial disaggregation of the main variables of the real estate market

		Housing sales				g prices	Building permits			
	2016		Jan-Sep 2017		2016	3Q17	20	16	Jan-No	ov 2017
	Number	%yoy	Number	%yoy	% yoy	% yoy	Number	%a/a	Number	%a/a
Barcelona	51.815	25,3	45.296	20,8	6,2	6,4	5.844	44,8	8.118	44,0
Girona	9.795	16,9	8.613	23,6	1,0	2,6	831	30,9	649	-10,5
Lleida	3.635	21,8	2.897	83,7	0,7	-0,1	299	-7,1	233	-20,7
Tarragona	9.907	18,0	8.330	20,8	0,3	1,2	515	19,5	429	-11,0
Catalonia	75.152	13,0	65.136	20,6	4,6	5,3	7.489	38,1	9.429	32,1
Spain	457.738	13,9	390.078	17,8	1,9	2,2	64.038	28,9	74.690	26,3

Source: BBVA Research based on Ministry of Public Works data

The recovery of exports in 2017 is based on the most important sectors of Catalan industry

With information up to November, it is estimated that Catalonia's exports had an increase of 8.3% in 2017 (Spain, 6.9%), after growth of 4.6% in 2016. The growth of external sales of Catalan goods is similar when evaluated in nominal terms (+8.8% in the year as a whole), as a result of the practical stabilisation of export prices. The breakdown of nominal growth shows that the main export sectors in Catalonia are those responsible for the improvement: semi-manufactures (which represent one third of Catalan export goods sales) account for 2.5 pp; consumption manufactures (12% of foreign sales) contributed 1.4 pp, and automobiles (18% of weight) accounted for 0.9 pp. But to these we have to add an extraordinary contribution of energy products (2.5 pp, but with a weight of only 4.9%)⁸, which almost doubled the value of sales abroad (see Figure 2.14).

By destinations, European markets contributed slightly more than half of the growth of exports. The EU-28 contributed 3.5 points to the nominal growth of 8.3% in exports, while the non-euro zone accounted for 1 additional

^{8:} The increase in energy exports (oil and its derivatives, and gas) is common to other autonomous regions and Spain as a whole.



point. The US contribution was also notable (0.6 pp), while Latin America and China accounted for 0.5 and 0.4 pp respectively, but it is worth highlighting the 1.8 pp that were obtained from sales in the rest of the world. Exports to the United Kingdom were able to grow by a notable 2.8% and those to Portugal grew 9.0%, which, together with the improvement in Latin America and Japan, could be expected to close in 2017 with an increase in sales in all the main markets of the Catalan economy for the first time since 2010.

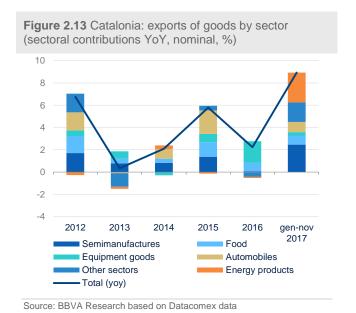
In addition, the available information shows that the contraction of exports in the third quarter of 2017 may have been temporary. Thus, if the BBVA Research forecasts are met for December, a recovery in 4Q17 would be obtained (+3.2% QoQ in real terms, see Figure 2.14). From the sectorial point of view, the improvement of the last quarter of the year is explained by semi-manufactures and consumables. From a territorial point of view, again the markets that contribute most to this growth are within the European Union; in particular France and Italy, as well as exports to the rest of the EU.

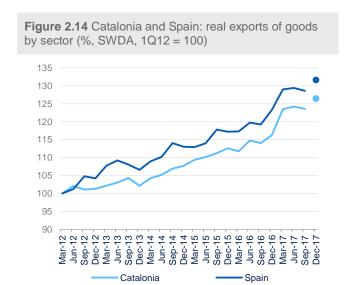
Unlike exports, the growth of Catalan imports of goods from abroad could decelerate slightly, to 3.8% (1.1 pp less than in 2016) in real terms, despite the fact that the nominal increase (7.8%) was higher than the previous year. Much of this increase in nominal terms is due to the increase in energy, which could be linked, at least in part, to the recovery of the price of oil. But it should be noted that the other sectors also contributed positively to growth, with increases in raw materials, semi-manufactures and consumables, all of them close to 9% YoY up to November.

The closure forecasts for the last quarter of the year indicate that in Catalonia imports could have contracted by 0.1 pp (+0.6 pp in Spain) which would be attributable to the fall of capital goods (which could fall -5.4% QoQ SWDA), while in the rest of products a slightly positive evolution is expected, according to consumption that continues to show some dynamism.

The combination of the behaviour of commercial flows with the exterior results in a slight worsening of the commercial deficit of Catalonia, up to €13.378 billion, equivalent to 6.0% of regional GDP (0.1 pp above that reached to 2016). In turn, the degree of openness (the ratio of the sum of exports plus imports over the regional GDP of the Catalan economy) measured in the flow of goods could have reached a new peak of 31.8%.







Source: BBVA Research based on Datacomex data

New record of visitors and overnight stays in a context of rising hotel prices, but with a dynamic that is interrupted in the second half of the year

2017 was another year of records for the Catalan tourism sector. For the fifth consecutive year a maximum was reached in border entries by foreign tourists (19 million). It was the fourth consecutive peak for the number of travellers lodging at hotels (19.7 million) and the seventh year if only foreigners are considered. In addition, there have been seven consecutive years of record peaks in overnight stays (57 million, of which 40.6 million were foreigners). In any case, these records (with the exception of border entries) share a common denominator: a slowdown compared to the dynamism observed in the previous year. In addition, after three years of virtual stagnation of the average cost per visitor, it increased by 4.4%. As a result, the total expenditure of foreign tourism reached €19.152 billion, 9.6% above the value achieved a year ago. This is equivalent to 8.6% of Catalan GDP, a 12-year high (in 2016 tourism made up 11.2% of the Catalan economy).

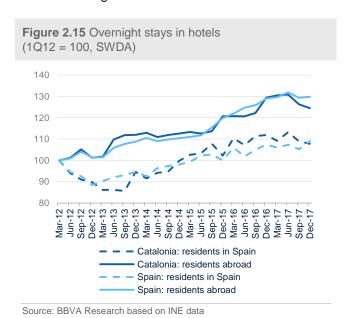
However, the pattern within the year shows a very different evolution between the first and second half. Thus, the depletion of capacity in some tourist areas in the peak season, the difficulties in airports in July, the terrorist attacks in August and the political tension in the months of October and November could have affected the sector. In fact, the results of the sector in year-on-year terms are mainly explained by good behaviour in the first and second quarters, and are affected by an extraordinary second half of 2016 – when the total spending of tourists increased by 3.5% in 3Q16 and 5.8% in 4Q16 (QoQ SWDA). In the first half of 2017 the evolution continued to be positive, with an average increase of 2.3%, but the figures show an negative trend from June, prior to the beginning of the difficulties already mentioned. Thus, in the second half the total cost would have been reduced by 1.0% QoQ on average, the entrance of travellers to hotels shows continuous negative monthly evolution rates from July (higher in the third quarter) whether from national or foreign visitors and the same result is obtained with the figures for overnight stays (see Figure 2.15). And this has directly affected the results of the hotel sector: the average rate was

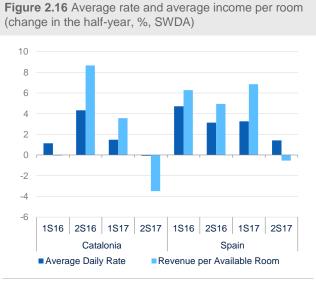
^{9:} For more details, see:http://economia.gencat.cat/ca/70_ambits_actuacio/economia_catalana/trets/003-estructura-productiva/035-turisme/



corrected by 2.4% in the second half of 2017 in Catalonia (SWDA), which, together with a decrease in the number of people in employment, means that income per room has decreased by 12.4%, with much higher corrections than those observed in Spain as a whole, which continues to be positive (see Figure 2.16).

It should be noted, furthermore, that the strong fluctuation in the influx of visitors is derived both from the behaviour of foreign tourists, which in the year as a whole increased the number of overnight stays by 4.2%, and residents in Spain, which were reduced by 0.8%. Those with the highest influx were most affected by the impact of different events: in the latter half, in the city of Barcelona overnight stays were reduced by 3.7% QoQ on average, the coast of Barcelona by 3.4% and the Costa Brava by 3.2%, while on the Costa Daurada it was 0.3%. By origin, only visitors from the Valencian Community (among the nationals) and those of the United States (among foreigners) showed favourable year-on-year figures for the last quarter of the year. And the correction, which initially seemed to be concentrated in the establishments of the highest category, has also been gradually expanding into intermediate and lower categories.





Source: BBVA Research based on INE data

Less dynamism of employment in construction, communication and finance and professional activities in the second half of 2017, which is saved by the increase in public services

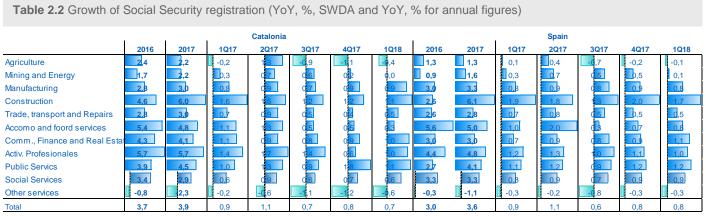
Social Security registration in Catalonia grew 3.9% in 2017 (Spain, 3.6%), but the trend over the year went downward. Thus, after increasing at an average rate of 1.0% QoQ SWDA in the first half, during the second half it will slow down to a still very creditworthy 0.7% quarterly. The growth differential with respect to the rest of Spain in 2017 is explained by the fact that the creation of employment in Catalonia was more dynamic in the first half. In the second half, however, the differences are more profile-related. In Catalonia, the increase in Social Security registration remained at around 0.7% in both quarters, and this trend has continued at the beginning of the year (forecast of +0.7% in 1Q18 with information from the month of January). In contrast, in Spain as a whole, there was a slight new



acceleration in the fourth quarter, up to 0.9% QoQ, which could continue in 1Q18. In both cases, the growth of employment in the second half has been favoured by the impetus of Social Security registration in the public sector, particularly in 3Q17. In a similar line, the Economically Active Population Survey (EAPS) reflects a development of the Catalan market relatively similar to the signal offered by Social Security registration. Thus, according to the EAPS, the number of people employed in Catalonia increased by 2.9%, half a point below the figure in 2016, but exceeding the Spain average of 2.6%. This means that the number of people in employment increased by 95,100 people, 19% of the increase registered in Spain as a whole.

At the sectoral level, in 2017 continued to see an emphasis on the importance of professional, scientific and technical activities, and of trade, transport and vehicle repair that repeated a contribution of 0.8 pp and 0.7 pp to the growth of Social Security registration in the year as a whole. However, the highest contribution was that of public services (0.9 pp in 2017 – 0.2 pp more than in 2016 – and 0.3 pp in the last quarter), the first sector being the one that contributed most to explaining the differential of growth compared to the State as a whole. The acceleration of professional activities throughout Spain is the impetus that allows the growth differential with Catalonia to be reduced, which maintains rates of change in Social Security registration that have been equal to or greater than 0.9% QoQ continuously since the fourth quarter of 2015.

In general, EAPS data indicate a similar composition, with the services sector leading the growth of the region. However, this statistic includes the private services that stand out (instead of the public) and they offset the virtual stagnation in industry and construction.



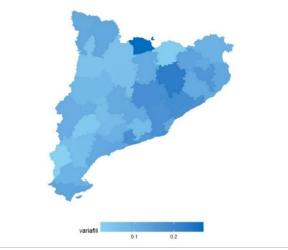
Source: BBVA Research based on Social Security data

The improvement of Social Security registration in the construction and also in industry has meant that, during 2017, the map of the distribution by district of the increase in employment shows a more homogeneous distribution throughout the territory. Thus, whereas in the cumulative figure since the beginning of the recovery until 4Q17 the greatest growth is seen in the province of Barcelona and on the coast, during 2017 it was the improvement in the industry that allowed the territorial expansion of the dynamism of the labour market. As can be seen in Figures 2.17 and 2.18, the greatest dynamism was accumulated in the districts of the province of Barcelona,



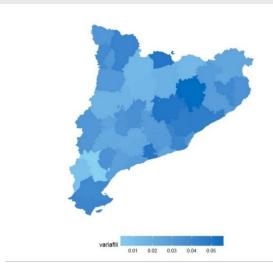
and the axis extends to the counties of Girona, while the counties of Lleida and those of the south of Tarragona continue to show less dynamism, both in the recovery as a whole and in the last year.

Figure 2.17 Catalonia: Social Security registration by district. Growth from 2Q13, beginning of the recovery up to 4Q17 (%)



Source: BBVA Research based on Social Security data

Figure 2.18 Catalonia: Social Security registration by district. Growth in 2017 (%)



Source: BBVA Research based on Social Security data

The improvement in the labour market, together with a decrease of 14.6% in the number of unemployed (-86,500 unemployed), and a slight increase in the labour force (+0.1%, after five years of decline, versus a -0.4% in the nation as a whole), contributed to a **decrease in the unemployment rate of 2.3 pp, down to 13.4% on average for the year as a whole** (12.4% SWDA in 4Q16). This figure means that it has reached the lowest value since 2008, but it is still 6.9 pp above the minimum reached before the crisis.

With regard to the quality of employment, the rate of temporality remains relatively stable (21.7% SWDA in 4Q17, 0.2 points below that of a year ago), which means Catalonia remains the autonomous region with the second-lowest rate of temporality, only behind Madrid (with 18.2%).

The dynamism of income favours the fulfilment of the 2017 stability objective

The fiscal policy of the Generalitat (Regional Government of Catalonia) in 2017 was marked by the favourable final settlement of revenues from 2015, and by the progressive increase in the control of the accounts of the Generalitat, first with the monthly control in the month of July and later with the total intervention in October with the application of Article 155 of the Spanish Constitution.



The budget implementation of the Generalitat was favoured, from the financial point of view, by the strong recovery of revenues, driven by the positive impact of the settlement of the autonomous region financing system and by increased advance payment. This allowed for an increase in the income of the Generalitat of 7.1% YoY in the cumulative amount up to November. In turn, despite the intervention, the autonomous region expenditure grew by 2.4% YoY up to November 2017, with general increases in all the entries. As a result, the Generalitat de Catalunya closed the month of November with a surplus of 0.1% of regional GDP, a significant improvement on the deficit of -0.6% accumulated up to November 2016 (see Figure 2.19).

In this evolution, it is expected that the Generalitat will have closed 2017 meeting the objective of budgetary stability (-0.6% of regional GDP) with a certain margin. For 2018, given the political situation of the autonomous region, the uncertainty about fiscal policy continues. The lack of a government with full powers and budget means moving forward the need to face reforms that reduce the high level of autonomic debt (34.9% of GDP, the highest in absolute terms and the third in percentage of GDP) and public investment which is practically paralysed.

Figure 2.19 Generalitat de Catalunya: capacity / need for accumulated financing up to the month of each year (% of regional GDP)

0,5

-0,5

-1,0

-1,5

-2,0

jun

2016

jul

2017

ago

sep

Objective 2017

oct

nov

des

feb

mar

apr

2014

may

2015

ian

-3.0

Source: BBVA Research based on MINHAFP data

^{10:} The settlement of the autonomous region financing system corresponding to the year 2014 allowed the Generalitat to receive €1.55 billion in 2016. The 2015 settlement increased this figure to €1.88 billion in additional revenues in 2017, received in the month of July.



The GDP of Catalonia will slow down to a growth of around 2.0% in 2018 and 2019: the reduction in the tail winds, the slowdown in tourism and the impact of political tension more than offset the exterior improvement

In 2018, the Catalan economy is expected to grow by 2.1% while maintaining similar growth in 2019 (2.0%). This will allow the creation of 135,000 new jobs throughout the period, and reduce the unemployment rate to 9.6% by the end of 2019. If these forecasts are met, Catalonia could be the autonomous region where GDP per capita increases the least in constant terms in the next biennium (2.3% on average if the current population forecasts of the INE are met), since recovering pre-crisis level in 2017.

Several factors have been detected behind this behaviour: from the external band, the improvement of the world and European scene has allowed a recovery of exports of goods, which was already observed in the final part of 2017 and could continue in coming quarters. This is accompanied by oil prices which, despite rising slightly, remain low in historical terms, a monetary policy that is still expansive and a slight appreciation of the exchange rate, which is expected to have a limited impact both for Spain and for Catalonia, given the weight of the euro area in the regional activity. In fact, interest rate hikes have been delayed until the end of 2019, favoured by a normalisation of the highly gradual monetary policy of the ECB. In the opposite direction, the reversal of geopolitical tensions is allowing some of the markets competing with Catalan tourism to begin to show a recovery, reducing the level of protection that Spanish tourism has so far enjoyed.

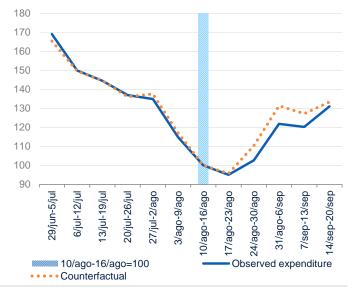
In general terms, therefore, the external scenario does not show significant changes compared to what was observed in the last edition of Catalonia Economic Outlook, in July, as well as in the Regional Observatories for the third and fourth quarters of 2017. In addition, the impetus of the foreign sector and the reduced cost of financing are factors that should encourage residential investment and equipment assets. And low interest rates, together with the increase in income available for the improvement of employment and the low price of oil, will act as supports for private consumption, on overcoming the favourable effects of the recovering demand which had stagnated in the years of the crisis.

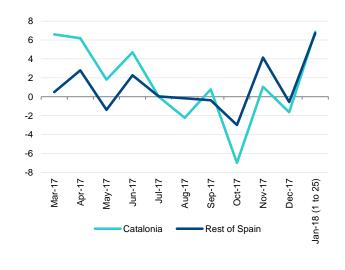
All of these concerns, however, were surpassed by the succession of political events that have taken place in Catalonia and the consequent increase in tension. First of all, the effects of the August attacks: these appear to have had a relatively limited impact on the tourism sector, but the effect on agent confidence would have been relatively lower. Thus, the information available to BBVA about credit card expense in Catalonia shows that the effects of the attacks on spending on Catalonia had been limited mainly to the city of Barcelona, and had already been overcome by mid-September (see Figures 2.20 and 2.21).



Figure 2.20 Barcelona city: spending on BBVA POS units during the summer of 2017

Figure 2.21 Spending with cards at BBVA sales point terminals (weekly average: percentage difference compared to 2015)





Includes BBVA POS expenses by BBVA customers and non-customers and the spending of BBVA customers at non-BBVA POS units. Source: BBVA Data & Analytics and BBVA Research

Source: BBVA

The second important point comes from the risks regarding the **sustainability of the growth of tourism.The high levels of growth in the influx of visitors in recent years was taking the occupancy levels of the hotel sector to record highs** (see Figure 2.22), but also within the other accommodation options in the main destinations and during the high season. This, which had already been adversely affecting the sector, together with the effects of terrorism on the demand for tourism in Catalonia, the improvement of competing markets that are beginning to overcome their own tensions¹¹ and the political environment suggest a worsening of the evolution and perspectives of the sector.

^{11:} A more detailed analysis of the effect of geopolitical tensions on tourism in the main Spanish destinations can be found at:https://www.bbva.com/wp-content/uploads/2016/11/Observatorio-Turismo-y-tensiones-geopol%C3%ADticas-BBVA-Research.pdf





It is considered high season when the occupancy ratio of the available beds is equal to or greater than 80% of their peak level in the year as a whole.

Effects of uncertainty: limited in time as regards consumption, more intense and persistent in tourism and investment and without a general effect, until now, in employment

The third, but most important of the problems in the scenario faced by the Catalan economy has to do with the effects of the increase of the uncertainty about economic policy. At this point, it is necessary to emphasise behaviour which is relatively differentiated between the various components of the demand, depending on their sensitivity to the confidence levels. On the one hand, there is a negative reaction to the financial variables (share prices in general and, in particular, those of financial entities, or the risk premium). In addition, the partial consumer indicators show that the impact on household expenses may have been intense, but (at the moment) of limited duration. Ultimately, the effects on tourism appear to be more persistent. However, this does not seem to have had effects on employment for the moment (see Figure 2.23). In fact, the dynamism of Social Security registration also continued in January.

The positive pattern of employment could be explained by a number of issues: (i) the ECB's monetary policy, which lowers financing costs; ii) the strong momentum of the economy; iii) the global recovery, which is having a favourable impact on exports of goods; iv) the apparent perception of temporality of the shock, given the correction of the uncertainty that is already observed from the peak levels reached in the month of October (see Figure 2.24). The extension of this behaviour to the labour market in the coming months is, therefore, a growing risk for these forecasts.



Figure 2.23 Catalonia: data observed and forecasts in a scenario without uncertainty of economic policy (%, QoQ, SWDA)

3
2
1
2
3
Social Security Registered Unemployment Labor Market Private consumption Tourism

Forecast with data up to September

Forecast with data up to September

Observed

Source: BBVA Research based on GDELT data

Figure 2.25 Uncertainty about economic policy in Catalonia and Spain (EPU) (Typical deviations, monthly average) General Elections Catalan General 1-0 Elections +brexit Elections 3 2 -2 Oct-16 Sep-16 Nov-16 Jun-17 Feb-17 Mar-17 Jul-17 Aug-17 Dec-17 May-1 h Aug-Jah Catalonia Spain

Source: BBVA Research based on GDELT data

In any case, there is still uncertainty about the final impact on the activity, as shown by the fall in the investment-related indicators. In the BBVA Economic Activity Survey, all the components of investment have returned to negative balances. However, in the real indicators there are also signs that point to the need to wait to see the final impact, with a fall in non-residential building works permits and the creation of companies, the slowdown in imports of equipment goods, or changes in company registered address.

In this regard, BBVA Research has estimated the response of the Spanish and Catalan economies to the uncertainties of economic policy. The shock already observed today (that is, a high level of uncertainty during one month) could reduce the growth of the GDP of Catalonia by 0.7 pp in 2018, and around 0.3 pp in 2019. This would result in the creation of 35,000 fewer jobs than would have been created in a scenario without the increase of uncertainty. However, these are difficult situations to model due to the lack of reference events that could show



what had occurred in similar situations, which means that estimates by BBVA Research have a high degree of uncertainty (see Figure 2.25).

Considering this impact, BBVA Research has also estimated¹² the effects that this contraction of Catalonia's GDP would have on the rest of the autonomous regions. The effects can be seen in Figure 2.27, and are expected to be higher in those autonomous regions that have a greater commercial relationship with Catalonia. However, the resistance of the labour market both in Catalonia and in the rest of the autonomous regions causes an upward bias on forecasts. Thus, if the impetus of external factors offsets the impact of the uncertainty, growth may be greater than expected in this edition.

Figure 2.25 Response of the GDP to the uncertainties of economic policy (% YoY, deviation from the base scenario)

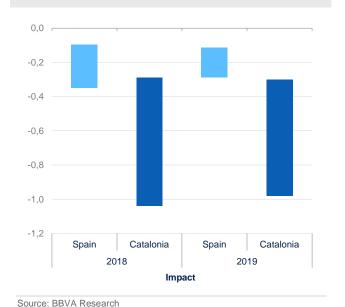
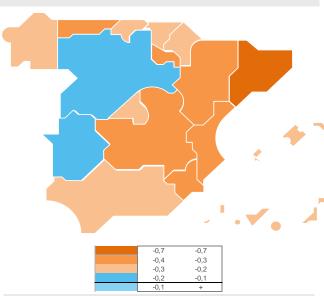


Figure 2.26 Potential impact of the political tension in Catalonia in the growth of the GDP of 2018 by autonomous region (pp of GDP)



Source: BBVA Research

The expected evolution of the labour market, due to employment growth slightly higher than 2.0% on the forecast horizon, and a minimum expected increase in assets, will bring unemployment rate during the year 2019 to levels close to the lowest point in the previous expansion: to 9.6% by late 2019 or to 10.5% on average for that year (see Figure 2.27). This could again lead to problems of tension in the labour market, given the difficulties in obtaining qualified workers that can guarantee the productivity gains necessary to maintain the growth and improvement of Catalonia's GDP per capita (see Figure 2.28), or even continue to move forward in the process of convergence with similar European regions (see Figure 2.29). According to data from the Spanish Regional Accounting, between 2014 and 2016 the compensation per employee grew in Catalonia by 1.0%, doubling the increase observed in Spain

^{12:} More detail on the models used to estimate the effects of the uncertainty of economic policy on Catalonia's GDP and the impact of the slowdown of the Catalan economy on the rest of the autonomous regions can be found in the methodological annex of BBVA Research's Regional Observatory for the fourth quarter, available here:https://www.bbvaresearch.com/wp-content/uploads/2017/11/Observatorio-Regional-4T17.pdf



(0.5%). This effect on wages is welcome if coming as a result of improvements in productivity, therefore, we must continue to make progress in improving this factor.

Figure 2.27 Catalonia: evolution of the unemployment rate (% of the active population)

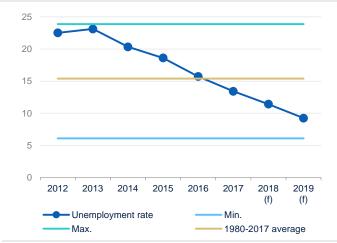
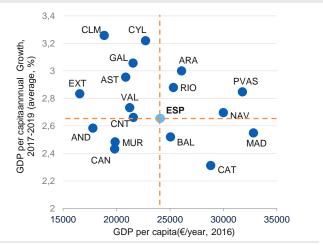


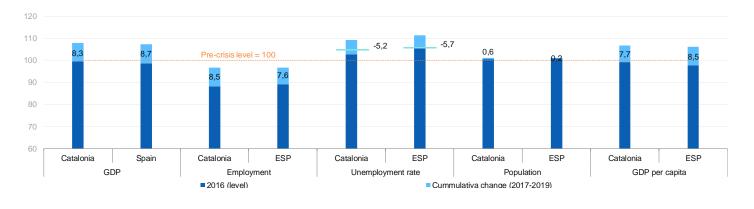
Figure 2.28 GDP per capita by 2016 and forecast of evolution in the forecast horizon



Source: BBVA Research based on INE data

Source: BBVA Research

Figure 2.29 GDP, employment, unemployment rate, population and GDP per capita. Level in 2016 and change in 2017-2019 biennium (Pre-crisis level = 100)



Source: BBVA Research based on INE data



Figure 2.29 Evolution of productivity and GDP per capita in comparable European regions (2010-2015) 14% Nord-Pas-De-Calais Flemish Region PBAS 12% 10% Wallon Region Apulia Emilia-Romagna MAD $R^2 = 0,6775$ Labour Productivity Growth Rhone-Alpes Veneto MUR Aquitaine 4% Provence-Alpes-Côte d'Azur AND 2% Piemonte Languedoc-Roussillon 0% Lombardia Campania -2% Umbria

2%

GDP Per cápita Growth

4%

Belgium

6%

8%

10%

France

12%

14%

Spain Source: BBVA Research based on INE data

-6%

-4%

-6%

-8%

Lacio

Table 2.3 Growth of GDP per Autonomous Region

-4%

-2%

Italy

0%

	2015	2016	2017	2018	2019
Andalucía	2,9	2,8	3,2	2,5	2,4
Aragón	1,7	2,7	3,2	2,4	2,4
Asturias	2,5	1,8	2,4	2,3	2,0
Baleares	2,3	3,8	4,1	3,0	2,6
Canarias	2,4	3,0	3,6	2,9	2,5
Cantabria	2,5	2,4	2,5	2,4	2,1
Castilla y León	2,7	3,6	2,5	2,6	2,3
Castilla- La Mancha	3,5	3,5	3,3	2,7	2,4
Catalonia	4,2	3,6	3,0	2,1	2,0
Extremadura	2,5	2,3	2,6	2,4	2,3
Galicia	4,2	3,6	2,8	2,6	2,3
Madrid	3,5	3,6	3,6	2,7	2,7
Murcia	6,2	3,2	3,1	2,5	2,3
Navarra	3,6	3,1	3,0	2,8	2,4
País Vasco	3,8	2,9	2,7	2,9	2,5
La Rioja	2,9	1,0	2,7	2,5	2,5
C. Valenciana	3,3	3,5	3,2	2,4	2,4
Spain	3,4	3,3	3,1	2,5	2,3

Source: BBVA Research based on INE data



Table 2.4 Growth of employment from EAPS by Autonomous Region. (variation of the annual average)

	2015	2016	2017	2018	2019
Andalusia	5,1	2,4	4,1	2,9	2,1
Aragó	4,2	2,3	2,2	1,9	1,7
Astúries	0,0	2,6	2,5	2,0	2,2
Balears	5,7	4,1	1,3	3,0	3,0
Canàries	6,7	3,2	3,5	4,4	3,4
Cantàbria	1,0	3,0	1,0	1,6	1,6
Castella i Lleó	2,0	2,8	0,8	1,0	1,1
Castella- La Manxa	2,3	3,2	4,1	3,7	2,2
Catalunya	1,5	3,4	2,9	2,4	1,7
Extremadura	0,8	1,8	0,6	2,4	1,6
Galícia	1,9	2,3	1,2	1,3	1,0
Madrid	3,6	0,8	2,6	2,7	2,2
Múrcia	0,0	6,1	3,4	2,4	2,5
Nabarra	0,7	1,2	4,2	2,2	1,9
País Basc	1,4	2,8	0,4	1,8	1,6
La Rioja	1,7	1,7	1,4	0,4	1,5
C. Valenciana	4,0	3,1	3,1	2,8	2,3
Espanya	3,0	2,7	2,7	2,5	2,0

Source: BBVA Research based on INE data



Analysis of the economic outlook for Catalonia with the BBVA Economic Activity Survey. Fourth quarter of 2017¹³

The results of the BBVA Survey of economic activity (EAE-BBVA) for the fourth quarter of 2017 are consistent with a Catalan economy where the unease inherent in political tension affects confidence among agents. Thus, the data from this edition of the Survey, made in mid-December of 2017, show a significant change with respect to the trend observed in previous quarters. In fact, many indicators return to negative levels not seen, in most cases, since at least a year earlier.

Thus, with respect to the evolution of the economy in the last quarter of the year, it returns to a net balance of responses¹⁴ of -20%, 39 pp less than a quarter ago and 45 pp less than a year ago. This fall is consistent with a high degree of idiosyncratic and differential uncertainty with respect to the rest of the State (see Figure R.1.1) and does not have a direct transfer to the behaviour of the real indicators. In fact, the MICA-BBVA model used to track the Catalan economy by BBVA Research shows a slowdown in activity in the fourth quarter, but not as strong as the one that would be deduced from the change in the values of the Survey.

In any case, the signal regarding the outlook for the next quarter (in this case, 1Q18) is clearly more favourable: the balance is maintained at a positive value of +14 pp, but this means 12 pp less than in the previous quarter and 23 pp less than a year ago. Again, the correction seen in Catalonia has not been observed in the rest of Spain (see Figure R.1.2). But the fact that it remains positive indicates that the respondents expect the effects to be lower in this quarter.

When analysing the thematic responses of the Survey, there is an evolution similar to that shown by the partial situation indicators with official information presented in the rest of the edition. Thus, the variables most affected are those related to tourism, sales, investment in construction and services and the order backlog. The first of them, tourism, has had a correction of 60 points from the previous quarter (the survey was conducted in the second half of September, after the August attacks) and of 53 compared to 4Q16, it obtained a balance of -18 pp, the lowest since the end of 2009. The correction is similar in sales (-46 pp in the quarter, up to -20 pp in the balance at 4Q17). The correction in investment variables, particularly in the new construction (-43 pp in the quarter) and services (-37 pp) is also very relevant. This major change in investment is one of the main risks for the Catalan economy, since it could mean the favourable evolution breaking investment in the previous quarters.

On the other hand, the correction is not so intense in the industrial-sector variables or those linked to employment. The first, favoured because the internal context does not affect the exporting business in the same way and the vision of sales abroad continues to be the most positive variable in the survey.

^{13:}The BBVA Survey has been conducted quarterly since the 3rd quarter of 1991 among the employees of the BBVA branch network in Catalonia.For more details on the operation of the Survey, please see:Spain Economic Outlook, 2nd quarter of 2014, Box 1, BBVA Economic Activity Survey.An early tracking tool for the economic pulse, available

here:https://www.bbvaresearch.com/public-compuesta/situacionespana/

^{14:} The net balance of extreme responses is the difference between the percentage of responses of users who consider that the activity is increasing less those that consider it to be in decline.



With regard to employment, services and construction show a greater correction in the balance of responses than industry.

In short, the results of the BBVA Economic Activity Survey show atypical behaviour, with a clearly less optimistic and differentiated view of what happens in the rest of Spain, in reaction to the increase in uncertainty in the economic activity due to greater political tension. In any case, the outlook for this quarter suggests that the impact could be temporary and short-term, which is in line with the scenario set by BBVA Research for the coming quarters.

Figure R.1.1 Catalonia and rest of Spain: evolution of the economic activity in the reference quarter. Balances of extreme answers (%)



Figure R.1.2 Catalonia and rest of Spain: perspective for the quarter following the reference quarter. Balances of responses (%)



Source: BBVA

Figure R.1.3 BBVA Survey of Economic Activity in Catalonia. Balances of responses (%). Selected variables



Source: BBVA

Table R.1.1 BBVA Survey of Economic Activity in Catalonia. General results (%)

	4t	h Quarte	r 2017			3rd Quar	ter 2017	7	4	4th Qua	rter 201	6
	Rising	Stable	Falling	Balance *	Rising	Stable	Falling	Balance*	Rising	Stable	Falling	Balance*
Economic Activity	14	52	34	-20	26	66	7	19	29	66	5	24
Outlook for the next quarter	27	60	13	14	32	63	5	27	39	59	2	37
Industrial production	14	65	21	-7	23	73	4	19	23	73	5	18
Order backlog	14	53	33	-19	26	67	7	19	27	67	6	20
Level of stocks	19	73	7	12	11	83	6	5	0	100	0	0
Investment in the primary sector	9	79	12	-3	17	73	10	7	13	80	7	5
Industrial investment	11	73	16	-5	16	79	6	10	17	76	7	10
Investment in services	16	57	28	-12	31	61	7	24	31	61	9	22
New construction	24	52	25	-1	47	47	6	41	31	58	10	21
Industrial employment	13	74	13	0	22	75	3	18	22	76	2	20
Employment in construction	17	61	23	-6	32	61	7	24	34	61	5	28
Employment in services	21	64	15	6	38	57	5	32	21	70	9	13
Prices	22	73	5	17	36	62	3	33	39	57	4	35
Sales	12	56	32	-20	32	62	6	26	38	57	5	33
Tourism	10	74	16	-6	46	50	4	41	38	58	4	35
Exports	14	54	32	-18	29	69	3	26	24	74	2	22

^(*) Balances of extreme answers (%). Source: BBVA Survey of Economic Activity



3. The territorial dynamics of the Spanish population: 1950-2016

Ángel de la Fuente¹⁵ - FEDEA and the Institute for Economic Analysis (CSIC). January 2018

1. Introduction

This note analyses the **evolution of the Spanish and Catalan population between 1950 and today** using the *RegData* database described in de la Fuente (2017). After this introduction, section 2 focuses on the impact of vegetative and migratory factors on the evolution of the total population of Spain and on its ageing process. Section 3 analyses the dynamics of the territorial distribution of the population, which shows a tendency to be concentrated more and more in certain areas of the national territory. Finally, the case of Catalonia is analysed.

2. Evolution of the aggregate population

Between 1955 and 2016 the Spanish population increased from 28.2 million to 46.5 million inhabitants, which represents a cumulative increase of 65% or an average annual growth rate of 0.77%. But as we can see in Figure 3.1, this growth has not occurred at a uniform rate. Until the mid-1970s, the Spanish population grew at an annual rate of around 1%, despite a negative net migratory balance. Between 1975 and 1990, the growth of the population collapsed even though emigration also fell. This is due, fundamentally, to the very marked fall in the birth rate observed during this period (see panel b of Figure 3.1). Next, there was a strong recovery in the growth of the population, which was concentrated especially in the early years of the current century and was caused exclusively by the influx of several million foreign immigrants in a few years, while the native population continued to be stagnant. With the advent of the crisis, however, this influx stopped, and was even reversed in recent years, bringing the growth rate of the population below zero in 2012 and 2014.

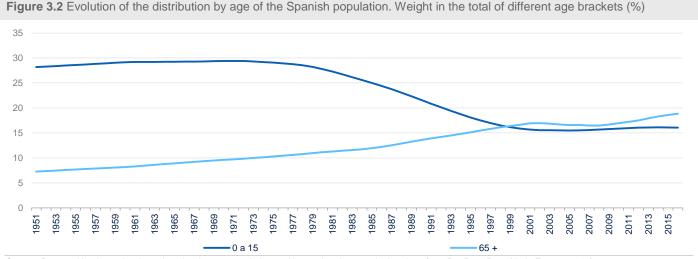
As a result of the fall of the birth rate and of the increase in life expectancy, the Spanish population has already been immersed in a process of ageing that accelerated significantly in the 1970s. This can be seen in Figure 3.2, which shows the evolution of the weight of the oldest section of the population (upward) and the youngest (downward). As can be seen in the graph, the preponderance of the elderly ceased to increase temporarily during the years of strong influxes of migrants from the first decade of this century, but resumed with the advent of the crisis.

^{15:} I am grateful for the comments and suggestions made by Pep Ruiz.



Figure 3.1 Annual growth rate of the Spanish population and components (units per thousand) a. total i components: native vs. migrants b. Native Growth Rate breakdown: 2.0 Births and Deaths as a % of total populaiton 2.5 1,5 2,0 1,0 1,5 0.5 1.0 0.5 -0.5 1961-65 1981-85 1991-95 1986-90 1951-55 1956-60 1976-80 2001-05 2006-10 1996-2000 0.0 1951 Tota Native Migration Births Deaths

Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

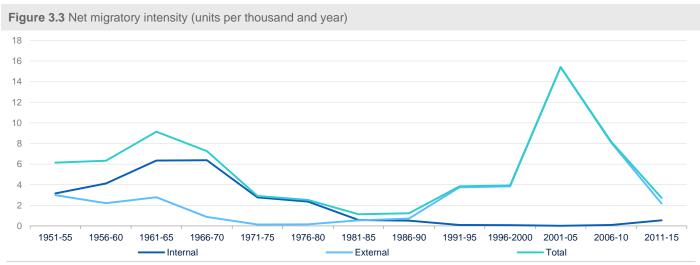


Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

During these decades, Spain has experienced strong migratory currents, both internal and external, which, as we have seen, have played a very important role in the evolution of the population, and even more so on the land settlement pattern. Figure 3.3 summarises the evolution of the net migration intensity and its internal (interregional) and external components. The indicator is constructed as the total number of net migratory journeys of each year (measured from 1 July to 1 July), expressed as a fraction of the population of the country at the beginning of that year. The number of migratory journeys is calculated as the sum of internal and external journeys. The external journeys are measured, each year, as the absolute value of the net migratory balance of Spain as a whole. Internal journeys are approximated i) by adding the absolute values of the regional net migration balances, ii) subtracting the total from the external journeys and, iii) dividing the result by two to take into account the fact that each internal displacement is counted twice (at the region of origin and the region of destination). The procedure is only approximate and tends to underestimate the intensity of internal migrations, as it only considers net flows.



The net migration intensity shows a downward trend during much of the period, interrupted by very strong recovery in the early years of the current century that ends with the onset of the crisis. At the beginning of the 1960s this variable reached values around 8 per thousand annually, which represented very large net population movements (around 300,000 net journeys per year) and led to this rate doubling during the first five-year period of this century. By accumulating these figures for the whole period, the total number of net journeys exceeds 13 million, which means that a good part of the Spanish population has changed from its region (or country) of residence during the period analysed. In addition, this figure considerably underestimates the actual number of migration journeys, as it only captures the net population flows (that is, the difference between the total number of immigrants and that of emigrants) and considers only displacements from or to other regions or abroad, excluding therefore those that occur inside a given region.



Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

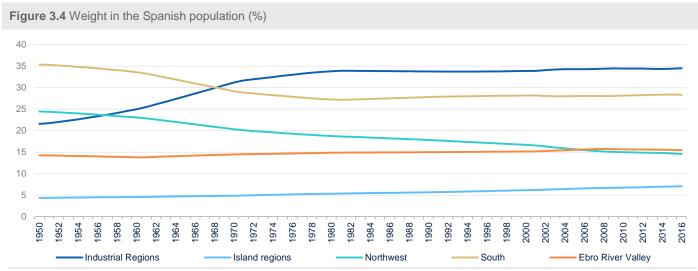
Both components of the net migratory intensity have very different patterns. The internal component, which measures the intensity of interregional migratory flows, presented a clearly decreasing trend, being reduced to values lower than 1 per thousand from 1980. The external migratory intensity, in turn, decreased rapidly during the first part of the period (when Spain had a negative migratory balance), maintained very low values during the central period and rose from 1985, coinciding with the shift in direction of the Spanish migratory balance, before arriving at extraordinarily high values during the first years of the present century but being reduced abruptly with the coming of the crisis.

3. The territorial dynamics of the population

This section analyses the evolution of the regional distribution of the Spanish population since the middle of the last century. To help organise the debate, in a first approach to the data, the 17 autonomous regions have been grouped into five large *macro-regions*, according to a combination of economic and geographical criteria. The three large autonomous regions which the greatest tradition and industrial weight (Catalonia, Madrid and the Basque Country) have been combined into a single economic region (*large industrial centres*) and the same has been done with the two *island regions*, with economies that are highly dependent on tourism. The rest of the regions are grouped together



with geographic criteria, distinguishing between the *South* (Andalusia, Extremadura, Castile-La Mancha, Murcia and Ceuta and Melilla), the *Northwest* (Galicia, Asturias, Cantabria and Castilla y León) and the *Ebro River Valley*, made up of Aragon, La Rioja and Navarra, but to which the Valencian Community has also been added.



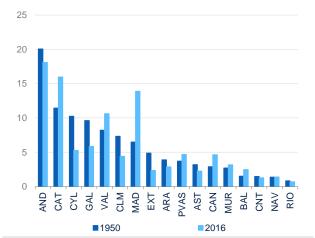
Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

Figure 3.4 shows the evolution of the weight of each of these *macro-regions* in the Spanish population. The regional profiles are highly varied. Between 1950 and 1980 the weight of large industrial communities increased by almost 60%, while the southern region lost more than 20% of its initial weight. However, from 1980 the weights of both regions stayed approximately stable. On the other hand, the Northwest lost weight throughout the period at an evenly uniform rate and the island communities gained it. During the whole period, the first of these regions lost 40% of its initial weight and the second gained almost 60%. Finally, the combination of the Ebro River Valley and the Valencian Community is the only macro-region that has maintained a position that is approximately constant during the last seventy years, although this stability hides clearly differentiated dynamics among the autonomous communities that make up the region, with the Ebro River Valley losing weight towards the Valencian Community.

Graph 3.5 shows the participation of each of the autonomous regions in the total population of the country in the years 1950 and 2016. The four most populated regions in 2016 (Andalusia, Catalonia, Madrid and the Valencian Community) accounted for 46.1% of the national population in 1950 and 58.5% in 2016. The level of concentration of the population, therefore, has increased appreciably, and it is also possible to observe very significant changes in the participation of some regions. The weight in the total population of Madrid more than doubled between the beginning and the end of the period, while those of the island regions and Catalonia grew by at least 40%. On the other extreme, Extremadura, Galicia and the two Castillas have lost at least 40% of their initial weight, and Aragon and Asturias, more than 25%. In summary, the Spanish population has been increasingly concentrated in Madrid and the periphery (especially on the Mediterranean coast and the island regions) to the detriment of the interior regions (the two Castillas, Extremadura and Aragon) and the Northwest.

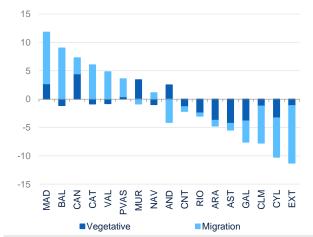


Figure 3.5 Regional weights in the Spanish population (%)



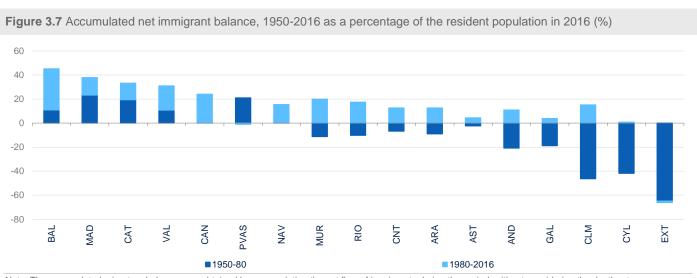
Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

Figure 3.6 Rates of relative growth of the population and components (average 1951-2016 in units per thousand)



Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

The relative rate of growth of the population of a region (that is, the difference with the corresponding national rate) can be expressed as the sum of a natural or vegetative component that reflects the difference between births and deaths and another that captures the net impact of migratory flows on population growth. Figure 3.6 shows the result of this breakdown for the case of the autonomous regions between 1951 and 2016. Although both components tend to have the same direction (immigrants are usually in a fertile age group, which tends to increase the birth rate and reduce the mortality rate in the receiving regions), the weight of the migration component has been decisive in the demographic evolution of a large part of the autonomous regions. In general terms, migratory flows have been directed towards the regions with the highest levels of income and higher employment probabilities.



Note: The accumulated migratory balances are obtained by accumulating the net flow of immigrants during the period, without considering the death rate. Source: Prepared by the author based on the data on population and internal and external migrations from RegData Dem (de la Fuente, 2017)

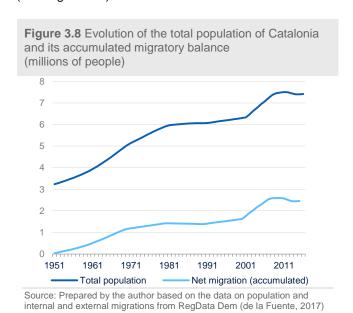


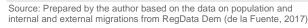
The accumulation of migratory flows has had a very significant effect on the regional distribution of the Spanish population. Figure 3.8 shows the net immigrant balances accumulated between 1950 and 2016 for each of the autonomous regions, broken down by sub-periods and expressed as a fraction of the population in 2016. In absolute terms, the most important receiving regions are Catalonia and Madrid, with population gains close to two and a half million people, and the Valencian Community, with a million and a half. At the other end of the scale, Castilla y León has lost about one million inhabitants due to emigration, followed by Andalusia, Extremadura and Castilla-La Mancha, with between 650,000 and 830,000 people. In relative terms, the Balearic Islands, the Canary Islands and the Basque Country also stand out among the receiving regions of the population, and Galicia among the sending regions. Accumulated net migration balances constitute a very significant fraction of the resident population in some regions. Thus, the net immigration balance of the Balearic Islands, Madrid, Catalonia and the Valencian Community exceeded 30% of the resident population in 2016, while the net emigration balances of the two Castillas and Extremadura exceeded 30% of their current population, and exceeded 65% in the latter region.

Comparing migratory balances accumulated in the periods 1950-80 and 1980-2016, the case of the Basque Country draws attention. Probably because of the terrorist pressure and the tense political situation that this region has suffered for decades, it has gone from being the region with the second-highest immigration balance in relative terms during the first half of the sample period to become, along with Extremadura, one of the only two regions with a negative net migratory balance between 1980 and 2016. The opposite situation occurred in Andalusia, Castilla-La Mancha, Murcia and La Rioja. All of them are regions with a significant agricultural sector that has absorbed significant amounts of foreign labour during the first decade of this century. Foreign immigration during this period has also been significant in the island regions, Madrid, Catalonia and the Valencian Community.

4. The case of Catalonia

In the case of Catalonia, the population increased from 3.2 million in 1951 to 7.4 million in 2016, largely due to a strong migratory influx that contributed a cumulative net balance to the region of about two and a half million people (see Figure 3.8).





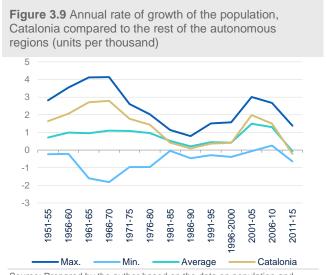
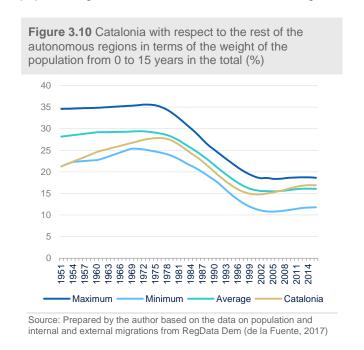
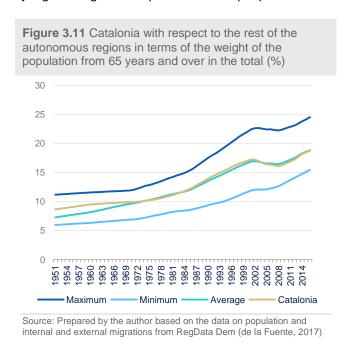




Figure 3.9 compares the rate of growth of the Catalan population with the national average, maximum and minimum levels. As can be seen, Catalonia has been almost always above the national average in terms of the rate of population growth. The differential with the average was especially high during the first part of the sample period.





Figures 3.10 and 3.11 repeat the same comparison, but now in terms of the weight of the population of younger and older people in the total. As can be seen in the rest of Spain, there has been a rapid ageing process in Catalonia that has resulted in a significant increase in the population of people 65 years and over throughout the period, and in a fall of the population of 0 to 15 years that was concentrated between 1980 and 2000. Within this common trend, the Catalan population has gradually converged with the Spanish average in terms of its age structure, starting with an initial situation of greater ageing characterised by the low weight of the youngest group in the population.

References

de la Fuente, A.(2017). "Long series of some regional economic and demographic aggregates: Updating of *RegData* up to 2016. (*RegData* and *RegData Dem* version 5.0-2016). "FEDEA, Estudios sobre Economía Española (Spanish Economic Studies) no. 2017-26, Madrid.http://www.fedea.net/datos-economia-regional-y-urbana/



4.Tables

Table 4.1 Main indicators of the economic situation in Catalonia (%)

	2016			Average growth since the beginning of the year (YoY)		Last data (MoM, %, SWDA)		
	Catalonia	Spain	Catalonia	Spain	Catalonia	Spain	Last month	
Retail Sales	2.7	3.7	-0.2	1.2	-0.1	1.2	Dec-17	
Car Registrations	9.8	12.4	8.5	9.2	-0.1	-1.1	Dec-17	
IASS	3.2	4.2	6.3	6.5	2.4	2.0	Nov-17	
Resident Travellers (1)	7.3	4.2	0.2	1.4	-1.8	0.2	Dec-17	
Overnight Stays by Residents (1)	5.9	3.6	-0.8	0.7	-2.3	0.4	Dec-17	
IPI	3.3	1.6	3.9	2.6	0.9	0.9	Dec-17	
Housing building permits	38.1	30.3	32.1	24.8	-1.3	-1.7	Nov-17	
Housing transactions	21.4	14.0	15.2	15.0	3.2	0.6	Nov-17	
Real Exports (2)	3.3	4.4	9.8	7.9	0.5	0.5	Nov-17	
Real Imports (2)	4.9	2.8	4.0	5.5	-0.8	0.3	Nov-17	
Non-Resident Travellers (3)	8.4	10.1	5.5	5.9	-1.6	-1.9	Dec-17	
Non-Resident Overnight Stays								
(3)	7.3	9.6	4.2	3.7	-1.8	-1.9	Dec-17	
SS Registration	3.7	3.0	3.9	3.6	0.2	0.2	Dec-17	
Registered Unemployment	-11.9	-8.6	-11.1	-9.3	-0.3	-0.5	Dec-17	

⁽¹⁾ Residents in Spain. (2) Exports of goods. (3) Non-Residents in Spain. Source: BBVA Research based on INE, MFOM, MEH and MITIC data

Table 4.2 EMU: macroeconomic forecasts (annual variation rates in %, except for deindexation)

	2015	2016	2017 (p)	2018 (p)	2019 (p)
GDP at constant prices	2.0	1.8	2.4	2.2	1.8
Private consumption	1.8	2.0	1.8	1.7	1.6
Public consumption	1.3	1.7	1.1	1.2	1.1
Gross fixed capital formation	3.0	4.5	4.1	4.1	3.3
Inventories (*)	0.0	-0.1	0.1	0.0	0.0
Internal demand (*)	1.9	2.3	2.2	2.1	1.8
Exports (goods and services)	6.1	3.3	4.7	3.7	3.6
Imports (goods and services)	6.5	4.7	4.6	3.9	4.1
External demand (*)	0.1	-0.5	0.2	0.1	0.0
Prices					
CPI	0.0	0.2	1.5	1.5	1.6
Underlying CPI	0.8	0.8	1.1	1.3	1.6
Labour market					
Employment	1.0	1.3	1.6	1.3	0.9
Unemployment rate (% active population)	10.9	10.0	9.1	8.3	7.9
Public sector					
Deficit (% GDP)	-2.1	-1.5	-1.1	-0.9	-0.8
Debt (% GDP)	89.9	88.9	86.5	83.6	81.0
Foreign sector					
Current account balance (% GDP)	3.1	3.3	3.3	3.2	3.0

^(*) Contribution to growth. (p) forecast.

Closing date for forecasts: 12 January 2018. Source: government agencies and BBVA Research



Table 4.3	Macroeconomic	Forecasts:	Gross	Domestic	Product
I able Tis					

(Annual average term, %)	2015	2016	2017	2018	2019
USA	2.9	1.5	2.2	2.6	2.5
Eurozone	2.0	1.8	2.4	2.2	1.8
Germany	1.5	1.9	2.6	2.4	1.8
France	1.0	1.1	1.9	1.9	1.6
Italy	0.9	1.1	1.6	1.5	1.3
Spain	3.4	3.3	3.1	2.5	2.3
United Kingdom	2.3	1.9	1.4	1.2	1.4
Latin America *	-0.1	-1.0	1.1	1.7	2.5
Mexico	3.3	2.9	1.9	2.0	2.2
Brazil	-3.5	-3.4	1.0	2.1	3.0
EAGLEs **	4.8	5.2	5.4	5.4	5.5
Turkey	6.1	3.2	7.0	4.5	4.3
Asia Pacific	5.6	5.6	5.6	5.5	5.5
Japan	1.4	0.9	1.4	1.0	1.2
China	6.9	6.7	6.7	6.3	6.0
Asia (excl. China)	4.6	4.7	4.6	4.7	5.0
World	3.4	3.3	3.7	3.8	3.8

^{*} Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.

Closing date for forecasts: 12 January 2018.

Source: BBVA Research and IMF

Table 4.4 Macroeconomic Forecasts: 10 year interest rate

(Annual average term, %)	2015	2016	2017	2018	2019
USA	2.13	1.84	2.33	2.62	3.02
Germany	0.52	0.13	0.37	0.76	1.25

(p) forecast.

Closing date for forecasts: 12 January 2018.

Source: BBVA Research and IMF

Table 4.5 Macroeconomic Forecasts: Exchange rate

(Annual average term)	2015	2016	2017	2018	2019
EUR-USD	0.90	0.90	0.89	0.83	0.81
USD-EUR	1.11	1.11	1.13	1.20	1.23
USD-GBP	1.53	1.35	1.29	1.34	1.44
JPY-USD	121.07	108.82	112.20	115.38	119.33
CNY-USD	6.23	6.64	6.76	6.69	7.07

(p) forecast.

Closing date for forecasts: 12 January 2018.

Source: BBVA Research and IMF

Table 4.6	M	acroeconomic f	Forecasts:	Mone	tary	policy	/ in	terest	rate	9
-----------	---	----------------	------------	------	------	--------	------	--------	------	---

(End of period, %)	2015	2016	2017	2018	2019
USA	0.50	0.75	1.50	2.25	2.75
Eurozone	0.05	0.00	0.00	0.00	0.50
China	4.35	4.35	4.35	4.35	4.10

(p) forecast

Closing date for forecasts: 12 January 2018.

Source: BBVA Research and IMF

^{**} Saudi Arabia, Bangladesh, Brazil, China, Philippines, India, Indonesia, Iraq, Mexico, Nigeria, Pakistan, Russia, Thailand and Turkey. (p) forecast.



Average term, %)	2015	2016	2017	2018	2019
Activity					
Real GDP	3.4	3.3	3.1	2.5	2.3
Private consumption	3.0	2.9	2.5	2.2	1.9
Public consumption	2.1	0.8	1.2	1.8	1.9
Fixed Capital Formation	6.5	3.3	5.0	3.7	4.4
B. Equipment and Machinery	11.5	5.0	6.2	3.5	4.3
Construction	3.8	2.4	4.3	3.4	4.1
Housing	-1.0	4.4	7.6	5.3	5.7
nternal demand (contribution to growth)	3.9	2.5	2.6	2.4	2.3
Exports	4.2	4.8	5.1	4.4	5.2
Imports	5.9	2.7	3.9	4.4	5.8
External demand (contribution to growth)	-0.4	0.7	0.5	0.2	0.0
Nominal GDP	4.1	3.6	4.1	4.2	4.4
(Thousands of millions of euros)	1080.0	1118.5	1164.9	1213.8	1266.7
Labour market					
Employment, EAPS	3.0	2.7	2.7	2.5	2.0
Unemployment rate (% active population)	22.1	19.6	17.1	15.3	14.0
Employment QNA (equivalent to full time)	3.2	3.0	2.9	2.2	1.7
Apparent productivity of the labour factor	0.3	0.3	0.3	0.3	0.6
Prices and costs					
CPI (Annual average)	-0.5	-0.2	2.0	1.6	1.7
CPI (end of period)	0.0	1.0	1.5	1.2	1.9
GDP deflator	0.6	0.3	1.0	1.6	2.0
Compensation per employee	1.6	-0.3	0.0	1.6	2.4
Unitary labour cost	1.4	-0.6	-0.2	1.3	1.8
Foreign sector					
Current Account Balance (% of GDP)	1.1	1.9	1.8	1.9	1.7
Public sector (*)					
Debt (% GDP)	99.4	99.0	98.1	96.4	94.1
Balance Public Admin. (% GDP) (*)	-5.2	-4.3	-3.1	-2.3	-1.7
Households					
Nominal income available	2.2	2.0	2.8	4.6	4.9
Savings rate (% nominal income)	8.8	7.9	6.4	7.4	8.4

Annual variation rate in %, except if there is a pertinent indexation.

Closing date for forecasts: 12 January 2018.
(*) Excluding aid to Spanish financial institutions.
Source: BBVA Research



5. Glossary

Acronyms

- AAPP: Public Administrations
- AONC: Agreement for employment and collective bargaining
- BBVA: Banco Bilbao Vizcaya Argentaria
- BBVA GAIN: BBVA's global activity index
- ECB: European Central Bank
- CCAA: Autonomous Regions
- CEOE: Spanish Confederation of Business Organisations
- CEPIME: Spanish Confederation of Small and Medium Enterprises
- CG: Governing Council
- CNTR: Quarterly National Accounting
- CRE: Regional Accounting of Spain
- SWDA: Seasonally and Working Day Adjusted
- EAE BBVA: BBVA Economic Activity Survey
- EAGLEs: Emerging and Growth-Leading Economies
- EAPS: Economically Active Population Survey

- Euribor: Euro Interbank Offered Rate
- Fed: US Federal Reserve System
- CPI: Consumer Price Index
- LATAM: Aggregate of Latin America that includes Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela
- INE: National Institute of Statistics
- MEISS: Ministry of Employment and Social Security
- MICA-BBVA: BBVA's Coincident Activity Indicator Model
- MINHAFP: Ministry of the Treasury and Public Function
- ASR: Other Resident Sectors
- GDP: Gross Domestic Product
- SMEs: Small and medium-sized enterprises
- APR: Annual percentage rate
- EU: European Union
- EMU: Economic and Monetary Union

Abbreviations

- YoY: year-on-year change
- CI: Confidence interval
- mM: thousands of millions
- · bps: basis points

- mp: market price
- pp: percentage points
- QoQ: quarterly variation



LEGAL NOTICE

This document, prepared by the Department of BBVA Research, is for information purposes and contains data, opinions or estimates related to the date of the same, either prepared in-house or from sources or based on sources that we consider reliable, without being subject to independent verification by BBVA. BBVA, therefore, does not offer any express or implicit guarantee as to its accuracy, integrity or correction.

Any estimates that this document may contain have been made according to generally accepted methodologies and must be taken as such, that is, as forecasts or projections. The historical evolution of the economic variables (positive or negative) does not guarantee an equivalent evolution in the future.

The content of this document is subject to change without prior notice based on, for example, the economic context or fluctuations in the market. BBVA does not assumes any commitment to update the content of the document or to communicate any changes which may be made to it.

BBVA assumes no liability for any direct or indirect loss that may arise from the use of this document or its content.

Neither the present document nor its content constitutes an offer, invitation or request to acquire, disinvest or obtain any interest in financial assets or instruments, nor can they serve as the basis for any contract, commitment or decision of any kind.

Especially with respect to the investment in financial assets that could be related to the economic variables that may be elaborated in the course of this document, the readers must be aware that in no case should they use this document as the basis for making their investment decisions, and that it is those persons or entities potentially providing them with investment products who will have the legal obligation to provide them with all the information they need for making their decision.

The content of this document is protected by copyright law. It is expressly prohibited to reproduce, transform, distribute, publicly communicate, make available, extract, reuse, resubmit or use of any type, by any means or procedure, except in cases where it is legally permitted or is expressly authorised by BBVA.



This report has been prepared by the Spain and Portugal Unit

Chief Economist for Spain and Portugal

Miguel Cardoso

miguel.cardoso@bbva.com

+34 91 374 39 61

Ignacio Archondo

ignacio.archondo@bbva.com +34 673 70 60 36

Joseba Barandiaran

joseba.barandia@bbva.com +34 94 487 67 39

Giancarlo Carta

giancarlo.carta@bbva.com +34 673 69 41 73

Juan Ramón García

juanramon.gl@bbva.com +34 91 374 33 39

Antonio Marín

antonio.marin.campos@bbva.com +34 648 600 596

Virginia Pou

virginia.pou@bbva.com +34 91 537 77 23

ruiz.aguirre@bbva.com +34 91 537 55 67

Angie Suárez

angie.suarez@bbva.com +34 91 374 86 03

Camilo Andrés Ulloa

camiloandres.ulloa@bbva.com +34 91 537 84 73

BBVA Research

Chief Economist of the BBVA Group

Jorge Sicilia Serrano

Macroeconomic Analysis Rafael Doménech

r.domenech@bbva.com

Global Economic Scenarios

Miguel Jiménez

mjimenezg@bbva.com **Global Economic Scenarios**

Sonsoles Castillo

s.castillo@bbva.com

Modelling and Global Long

Term Analysis Julián Cubero

juan.cubero@bbva.com

Innovation and Processes

Oscar de las Peñas

oscar.delaspenas@bbva.com

Financial Systems and Regulation

Santiago Fernández de Lis sfernandezdelis@bbva.com

Coordination between Countries

Olga Cerqueira

olga.gouveia@bbva.com

Digital Regulation

Álvaro Martín

alvaro.martin@bbva.com

Regulation of

Financial Systems

Ana Rubio

arubiog@bbva.com

Spain and Portugal

Miguel Cardoso miguel.cardoso@bbva.com

United States

Nathaniel Karp

Nathaniel.Karp@bbva.com

Mexico

Carlos Serrano

carlos.serranoh@bbva.com Turkey, China and Big Data

Álvaro Ortiz

alvaro.ortiz@bbva.com

Turkey

Álvaro Ortiz

alvaro.ortiz@bbva.com

Le Xia

le.xia@bbva.com

South America

Juan Manuel Ruiz

juan.ruiz@bbva.com

Argentina

Gloria Sorensen

gsorensen@bbva.com

Chile

Jorge Selaive

jselaive@bbva.com

Colombia

Juana Téllez

juana.tellez@bbva.com

Hugo Perea

hperea@bbva.com

Venezuela

Julio Pineda

juliocesar.pineda@bbva.com

APPLICANTS MAY WRITE TO: BBVA Research: C/ Azul, 4. Edificio de la Vela - 4ª y 5ª plantas. 28050 Madrid (Spain). Tel.: +34 91 374 60 00 and +34 91 537 70 00 / Fax: +34 91 374 30 25 - bbvaresearch@bbva.com www.bbvaresearch.com