REPORT 2016

observatori barcelona

Presentation

We are pleased to present the 2016 *Barcelona Observatory* report, which showcases the positioning of Barcelona and its metropolitan area as a competitive and innovative space.

In a year of economic recovery after the impact of the recession, Barcelona has established itself in the international context as a global city –taking the 20th position in the Global Power City Index ranking developed by the prestigious Mori Memorial Foundation– and boosting its innovation profile by taking 9th position amongst the most attractive European cities in terms of digital entrepreneurship. This is especially important given the strategic importance of hosting the Mobile World Capital.

These results are the fruit of a city in continuous transformation as we move towards an economic model that we want to be competitive, fair and sustainable. We want a diversified and innovative economic model that drives local industry, promotes local commerce, and combines attractive foreign investment options and internationalization with the potential of our creative and entrepreneurial ecosystem. All this, with a central objective: the creation of quality employment as the best mechanism for reducing inequality. That is why, for the first time, the Observatory report incorporates a vision of social cohesion, as such making this one of the priority issues for the municipal government.

Barcelona has significant assets that can help to achieve these ambitious goals. The city enjoys a strong brand image internationally, being placed among the top fifteen cities, for example, with the best reputation in the world (City RepTrak 2016) and among the fifteen safest cities at the global level (Economist Intelligence Unit). Barcelona is also a hub for generating and attracting talent, as shown by the significant critical mass of people working in sectors with high added value in the Catalan labour market, which has more than 730,000 employees in science and technology, a leading position (5th and 17th at the European and the world level) in terms of scientific production, a high percentage of workers with university degrees or the fact that we have

two business schools in the top ten in Europe. Also, creation, culture and design are key elements in our competitiveness, and therefore there is a commitment to promote the creative industries.

In short: innovation, research, entrepreneurship and creativity, together with infrastructure and collective talent –these will be key elements in the future success of Barcelona–.

Barcelona offers a high quality of life, a key element in attracting and retaining talent, and there is a significant balance between its benefits and moderate costs compared with other European and the world cities. The data presented shows that Barcelona and its metropolitan area is a global city, and, therefore we are competing in the league of large cities. It is with these cities that we want to cooperate in order to meet major XXI century social, economic and environmental issues, being fully aware that cities will play a key role in the answers to these challenges.

By presenting this fourteenth annual Barcelona Observatory report, I want to convey my congratulations to the technical team of the Chamber of Commerce and City Council, who have made this publication possible, and I also want to thank the involvement of organizations that support the publication. This is a good example of co-operation between institutions, which is a characteristic in our history, and we should remember that Barcelona is a collective project of institutions, companies and civil society.

Jaume Collboni Cuadrado

Second Deputy Mayor for Business, Culture and Innovation

Barcelona has been benefiting from the effects of economic recovery since 2014. As a result, 2016 has been the most positive year since 2007, and all indicators show that the economy of the city recorded a growth rate similar to 2015. We should remember that GDP growth in the city of Barcelona was 3.2% in 2015, almost double the previous year (1.7%). Also, both the number of companies and the rate of employment increased in 2016 for the third consecutive year, and at the same time, the number of unemployed people fell for the fourth consecutive year. These data confirm the positive outlook of Barcelona's economy. Meanwhile the city is consolidating its position as the driving force in Southern Europe. Internal factors that have contributed to this economic recovery include the revitalization of domestic consumption and investment, which have benefited from a more tolerant fiscal policy, and a renewed confidence in the economy.

This is shown in the results of the Business climate survey which has been carried out on more than 1,000 companies in the Metropolitan Area, and which is published as a special report in this publication. 2015 and 2016 have registered the best results in the survey since the data series began in 2009, which is in line with the improving economic situation. Indeed, businesses in the Metropolitan Area indicate that business performance remained positive during the four quarters of 2016; the growth rate is being maintained despite years of poor performance. In addition, the general economic improvement is seen across all sectors except the construction business, which is nearing stability and which recorded similar levels to 2015.

This positive economic trend in the Metropolitan Area is confirmed by the results of a survey on business prospects for 2016 by Eurochambres, which is favourable and, moreover, represents a significant improvement on the previous year, especially in terms of domestic sales. This favourable economic outlook is a boost for the attractiveness of the city as a hub of economic activity. As such, 2016 saw Barcelona improving its position regarding the overall competitiveness of the city, standing in 20th place and it is now amongst the fifteen top cities in the world with the best reputation. The appeal of Barcelona and its strong positive image abroad for business are also very obvious in the field of international investment, with the city now occupying 8th position amongst the principal urban areas of the world attracting foreign investment projects during the period 2012-2016, according to KPMG. It is also the first city in terms of large urban cities attracting foreign investment, according to the European Cities and Regions of the Future report 2016/17 by fDi Magazine. These results, along with other indicators presented in the 2016 Barcelona Observatory report, give us a strong feeling of optimism.

I want to finish by thanking the technical team for their work and effort and continuous improvements to the Barcelona Observatory project, which this year has a new design. I would also like to thank all those organizations that have worked to provide information to enrich the content of the report that we hereby present.

Miquel Valls i Maseda

President of the Chamber of Commerce, Industry, Services and Navigation of Barcelona

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INTRODUCTION

Introduction

We hereby present the 2016 Barcelona Observatory report.

The Observatory is an initiative developed by the Barcelona City Council and the Barcelona Chamber of Commerce with the support of other organizations in the city that year after year collaborate by providing information and making key contributions on their sectors.

This fourteenth edition of the annual Barcelona Observatory report is designed to continue offering references that can be used as a basis for decision-making by business stakeholders interested in doing business here or setting up a business, or to attract talent and support candidature bids for events or for the opening of new branch offices in Barcelona. To this end, as every year, the report presents Barcelona's positioning regarding the world's major cities on a set of economic and social reference indicators.

The 2016 report has a new format that improves data visualization, and offers a number of new features as summarized below:

- A selection of 30 significant indicators that provide readers an efficient overview regarding the positioning of the city and the challenges to be met in six subject areas: a hub for economic activity, quality of life, sustainability and social cohesion, labour market and training, the knowledge society, tourism, and prices and costs.

New features in this year's report include six new indicators and an analysis of social cohesion for the first time. These are: sport in cities around the world, inequalities in income distribution via the Gini coefficient, the at risk of poverty or social exclusion rate –AROPE–, the sustainability index for the environment situation, and CO_2 emissions equivalent per capita –indicators that are included in the chapter on Quality of life, sustainability and social cohesion–, as well as the index of digital cities, included in the Knowledge Society chapter.

- The inclusion of new visual elements for each indicator, with charts or maps that facilitate understanding of the results and analysis of its trend line.
- A summary table that presents all the indicators to visualize the results and graph international positioning on different rankings.
- A special report by the Chamber of Commerce on the business climate in the Metropolitan Area of Barcelona in 2015 and the outlook for 2016, which includes a specific analysis of the main economic sectors. Based on the opinions of businesses, we offer a reading of the business environment in Catalonia and Barcelona, as well as the future scenario.

The Barcelona Observatory is characterized by the following features:

- It is built on a set of indicators, preferably defined at the city level, but that can also be extended to other regional areas.
- The information sources are renowned organizations and institutions.
- Most sources are international rankings except for ten indicators, whereby data was obtained from a sample containing the main urban areas.
- The indicators include, where possible, a graphical representation of trends to assess progress on each specific area.
- Data and information collected are up-to-date, based on the current availability.

FACTS AND FIGURES
BARCELONA 2015

Barcelona facts and figures 2015

GEOGRAPHICAL ENVIRONMENT

Surface area (km²)	102.2
Population	1,604,555
Foreign population (% of total)	16.3%
Density (inhabitants/km²)	15,706
Climate (Can Bruixa Observatory)	
Average monthly temperature	18.4 ºC
Yearly rainfall (mm)	316.9
Hours of sun	2,867.5

ECONOMIC ENVIRONMENT

MACRO ECONOMIC DATA

GDP (var/ yr %) - Catalonia	3.4
GDP (var/ yr %) - Barcelona	3.2
Social Security membership	1,027,455
Unemployment rate 16-64 years old (%)	13.3
Employment rate 16-64 years old (%)	69.2
Activity rate 16-64 years old (%)	79.8
CPI (average var. %) - Barcelona province	0.0
Exports (million €) - Barcelona province	50,166.5
Imports (million €) - Barcelona province	62,673.8
Outbound foreign investment (million €) - Catalonia	4,315.0
Inbound foreign investment (millions €) - Catalonia	4,886.2
Companies - Barcelona province	450,451
Foreign companies in Catalonia	6,454

COMMERCE AND TOURISM

Retail premises - Barcelona province	68,315
Open-air shopping areas	22
Municipal markets (number and surface area [m²])	43/ 209,500
Hotels	
Numbers	391
Beds	67,603
Tourists	8,303,649

INFRAESTRUCTURE

Airport	
Runways (number and length [m])	3/3,352;2,660;2,528
Passengers	39,711,276
International passengers (%)	73.3
Port	
Land surface area (ha)	1,081.0
Docks and moorings (km)	22.0
Total traffic (thousands of tonnes)	45,921.3
Trade fair and congress activity	
Trade fairs	68
Visits to Fira de Barcelona	2,000,000
Hall surface area taken up by fairs (m²)	700,000
International meetings	2,268

TRAINING AND CITY OF KNOWLEDGE

Catalan universities	12
University students in Catalonia (course 2014/2015)	251,589
Foreign schools (Barcelona province)	40
Innovative companies in Catalonia*	3,801

QUALITY OF LIFE

Beaches (number and metres)	9; 4,703
Bike lanes (km and bicing members)	120; 95,168
Public libraries (number and users)	40; 6,175,624
Museums, collections and exhibition spaces (number and users)	57; 26,066,903
Public sports facilities (number and users)	1,904; 182,230
Theatre, music and cinema spectators	9,684,653

Note: Data for 2015 except *2014
Source: AENA, Barcelona City Council, Regional Yearbook Caixa Catalonia, Fira de Barcelona, Generalitat of Catalonia, Idescat, INE, National Institute of Meteorology, State Ports, Secretary of State for Trade, Turisme de Barcelona, Institute of Culture of Barcelona, Ministry of Education.

RESULTS

Hub for economic activity

OBSERVATORI BARCELONA

Introduction

The economy of the city of Barcelona underwent a recovery process in terms of business activity and labour markets in 2015, and the city experienced a real growth of 3.2% in GDP over the year driven by a recovery in domestic demand, especially household consumption and rising private investment, and strong performance in terms of exports. For 2016, forecasts point to continued growth for the economy, an increase in private consumption and investment and a strengthening of export markets. But there are uncertainties about the trend of the world economy stemming from factors such as Brexit, the recovery of oil prices and sluggish activity in Europe that may affect this outlook, as confirmed by the latest macroeconomic analysis by the IMF.

This positive trend in the economy is confirmed by the results of a survey on business outlook by Eurochambres for 2016: results are favourable and significantly better compared to the previous year, especially in terms of domestic sales, which confirms the strong performance in economic activity in Catalonia. Compared with the rest of Europe, Catalonia's outlook is more favourable for exports, but less favourable for investment and similar regarding domestic sales and employment trends. Moreover, Barcelona improved its position in the ranking of overall city competitiveness, according to the Global Power City Index 2016, by the Mori Foundation, which saw Barcelona jumping six places to stand at 20th position in the world while occupying 14th place in terms of its reputation as reflected in the City RepTrak 2016 ranking.

Other indicators also show Barcelona's attractiveness for business and its strong brand image abroad. On the one hand, Barcelona generates confidence for international investment, as shown by the fact it occupies the eighth position in the ranking of the top urban areas in the world attracting foreign investment projects in the period 2012-2016, according to KPMG. In addition, the report European Cities and Regions of the Future 2016/17, by fDi Magazine, ranks Barcelona as the best urban area in terms of its strategy in order to attracting foreign investment, the third best city in southern Europe and tenth in terms of connectivity. On the other hand, it is among the top five cities in the world in terms of number of delegates and number of international conferences organized over the period: 2012-2015, according to the International Congress and Convention Association (ICCA).

Regarding entrepreneurship, the rate of entrepreneurial activity (TEA) in the province of Barcelona in 2015 was 6.1%, exceeding that of countries like Norway (5.7%), Italy (4.9%) and Germany (4.7%). Both Barcelona Chamber of Commerce and Barcelona City Council have been working on promoting entrepreneurship and contributing to the creation of quality jobs in the city

.

Barcelona saw real growth of 3.2% in GDP over the last year driven by a recovery in domestic demand

Global competitiveness of cities in the world in 2016

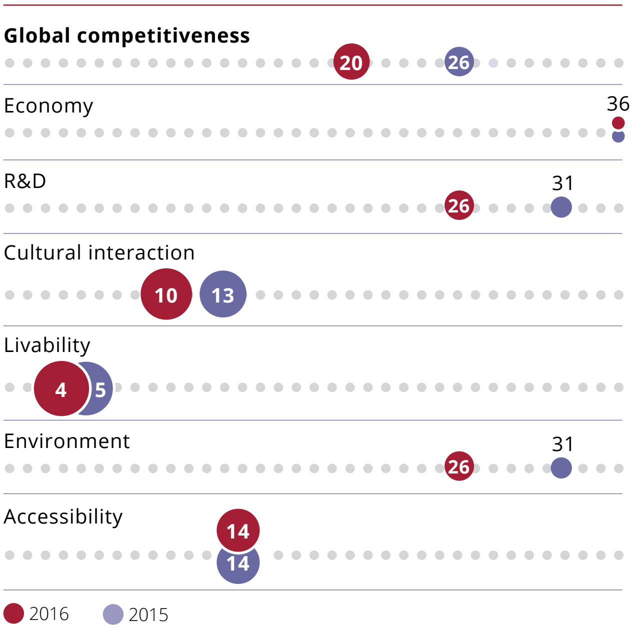
Barcelona among the top 20 cities in terms of global competitiveness

In 2016, the Global Power City Index report, which compares 42 cities, awarded Barcelona 20th place in the world ranking and 10th spot in the European global competitiveness ranking, meaning the city improved by six and two positions, respectively, compared to 2015. The ranking was headed by London, New York, Tokyo and Paris, with Barcelona obtaining an overall score similar to those of Toronto and Copenhagen, but above Chicago, Geneva and Milan.

Since 2008, Japan's Mori Memorial Foundation –along with the participation of universities and prestigious think tanks- has produced a synthesis index called the Global Power City Index based on the results of 70 indicators in six categories according to areas of urban competitiveness. In 2016, Barcelona is among the top five cities in the world in terms of the category livability, whilst improving on other categories like cultural interaction (taking 10th position), research and development and the environment (jumping from 31st to 26th position in both cases), and maintaining its position in the categories accessibility and economy (14th and 36th respectively).

In the survey on stakeholders, visitors and artists put Barcelona in 7th and 6th position respectively. However, for residents, researchers and managers it came in 18th, 27th and 30th respectively.

Categories of urban competitiveness
(Positioning of Barcelona)



Source: *Global Power City Index 2016*. Institute for Urban Strategies. The Mori Memorial Foundation

Global competitiveness of cities in the world. 2016

Position	City	European ranking
1	London	1
2	New York	
3	Tokyo	
4	Paris	2
5	Singapore	
6	Seoul	
7	Hong Kong	
8	Amsterdam	3
9	Berlin	4
10	Vienna	5
11	Frankfurt	6
12	Shanghai	
13	Los Angeles	
14	Sydney	
15	Stockholm	7
16	Zurich	8
17	Beijing	
18	Toronto	
19	Copenhagen	9
20	**Barcelona**	**10**
21	Istanbul	11
22	Osaka	
23	Brussels	12
24	San Francisco	
25	Chicago	
26	Madrid	13
27	Boston	
28	Vancouver	
29	Washington	
30	Geneva	14

Source: *Global Power City Index 2016*. Institute for Urban Strategies. The Mori Memorial Foundation

World's cities with the best reputation in 2016

Barcelona, among 15 top cities in the world with the best reputation

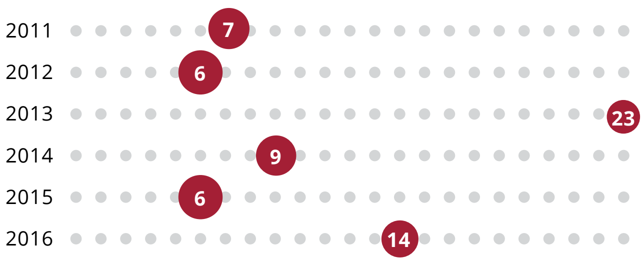
The results of the City Rep Trak report by the Reputation Institute placed Barcelona in 14th place in terms of the world's best city reputations in 2016 from a list of 55 cities with the largest population, GDPs and that are most familiar, based on a survey of 23,000 online respondents from influential countries in the world (G8).

The ranking was headed by Sydney, Vienna, Zurich, Toronto and Stockholm, with Barcelona above cities like Madrid, Frankfurt, Amsterdam, San Francisco and Tokyo. Despite dropping positions compared to 2015, Barcelona improved its overall score obtaining 77.2 points out of 100, a result similar to that of Melbourne.

In 2016, respondents rated cities on their attractiveness, the environment, effective government and advanced economy as the basis of a good reputation, which generates and facilitates tourism, foreign investment, knowledge and talent attraction.

In the 2015 ranking, Barcelona obtained 6th place overall, but stood out for its third place for livability, which was evaluated by its culture, lifestyle and the beauty of the city, and it was seventh top for being the most recommended for a visit and tenth for organizing conferences.

Positioning of Barcelona in the City Rep Trak Index (2011-2016)



Source: *2016 City RepTrak.* Reputation Institute

Cities with the best reputation in the world in 2016

Position	City	Index
1	Sydney	81.8
2	Vienna	81.7
2	Zurich	80.2
4	Toronto	79.5
5	Stockholm	79.5
6	Edinburgh	78.9
7	Montreal	78.7
8	Rome	78.6
9	Vancouver	78.4
10	Copenhagen	78.4
11	Helsinki	77.7
12	Venice	77.5
13	Melbourne	77.4
14	**Barcelona**	**77.2**
15	Madrid	76.9
16	Frankfurt	76.9
17	Amsterdam	76.9
18	San Francisco	76.5
19	Tokyo	76.5
20	Dublin	76.3
21	Milan	76.1
22	London	75.6
23	Paris	75.2
24	Munich	74.7
25	Prague	74.4
26	Seattle	74.2
27	New York	73.5
28	Singapore	73.5
29	Berlin	72.9
30	Boston	72.3

Note: The index takes a value between 0 and 100.

Source: *2016 City RepTrack.* Reputation Institute

Main urban areas in the world receiving foreign investment projects in 2016

Barcelona, eighth overall urban area for foreign investment projects 2012-2016

The Global Cities Investment Monitor 2016 report by KPMG places Barcelona in eighth position among the top urban areas of the world for attracting greenfield foreign investment projects in the period 2012-2016, with more than 500 projects that allowed Barcelona to gain two positions with respect to the results of 2010-2014. In 2015, the city was in 11th global position, which beat its results in 2014 (12th). The Barcelona area received more than a third (36%) of all inward foreign investment projects going to Spain, the same weight as London has compared to the UK.

Moreover, according to the European Cities and Regions of the Future 2016/17 report by fDi Magazine, Barcelona stood out for being the top urban area in terms of their strategy for attracting foreign investment, while ranking third best city in the south of Europe and tenth in terms of connectivity. For its part, Catalonia won first place in the overall classification of regions for attracting foreign investment, as well as amongst the regions of southern Europe.

Also, according to the Attractiveness Survey Europe 2016 by Ernst and Young, Barcelona is the 5th most attractive city in Europe for international investment after London, Paris, Berlin and Amsterdam, but ahead of Munich, Frankfurt, Madrid, Rome and Brussels, results based on the analysis of a 1,469 surveys of experts and potential investors.

Moreover, foreign productive investment[1] in Catalonia was 4,873.8 million € in 2015, representing an increase of 60.4% and the second highest figure in the data series close to the maximum reached in 2010 (4,945 million €). The growth experienced in FDI in Catalonia is clearly higher than at the Spanish level, where this indicator recorded an increase of 17.8% compared to 2014.

[1]Productive foreign investment does not take into account holding companies, which are companies established in Spain, whose objective is to hold shares in foreign companies. The operations of these companies represent a transfer between the same corporate group. The existence of entities holding foreign securities is due to tax optimization strategies within the same group.

Major urban areas in the world receiving foreign investment projects. 2012-2016

Position	Urban area	Projects 2012/2016
1	London	1,663
2	Shanghai	1,209
3	Hong Kong	943
4	Sao Paulo	819
5	New York	750
6	Paris	699
7	Sydney	647
8	**Barcelona**	**501**
9	Beijing	490
10	Dublin	489

Source: *Global Cities Investment Monitor 2016.* KPMG

Entrepreneurial activity in countries across the world in 2015

Barcelona's rate is higher than those of Spain, Italy and Germany

According to data from the Global Entrepreneurship Monitor (GEM) in 2015, the rate of entrepreneurial activity (TEA) of the resident population in the Barcelona area is 6.1% and in Catalonia 6.4%, so both have fallen 1.2 and 1.1 percentage points respectively compared with to the previous year.

In 2015, Barcelona and Catalonia's TEAs exceeded those of countries like Norway (5.7%), Italy (4.9%) and Germany (4.7%), while Catalonia was the fifth region with the highest entrepreneurial activity rate –above the Spanish average (5.7%)–. However, Barcelona's TEA remains below the average of the European Union where the activity rate of entrepreneurship also experienced a slight fall to stand at 7.6%.

Moreover, the quality and sustainability of entrepreneurship improved because in the Barcelona area entrepreneurship "to take advantage of a business opportunity" increased from 70% to 79% of the total, while entrepreneurship "out of need" fell from 29% to 20%. In Catalonia there has been an improvement in the business profile and aspirations of entrepreneurs, and in terms of the degree of innovation of the products, services and technologies used, in addition to an increase in the female entrepreneurial activity rate which is approaching the male rate.

Entrepreneurial activity in the world. 2015

(% population 18-64 years old)

TEA 2014	Country	TEA 2015
17,2	Brazil	21.0
14,4	Argentina	17.7
13,0	Canada	14.7
9,4	Estonia	13.1
15,5	China	12.8
13,8	United States	11.9
10,9	Slovakia	9.6
6,5	Ireland	9.3
9,2	Poland	9.2
9,3	Hungary	7.9
7,8	**EU average**	**7.6**
7,1	Switzerland	7.3
9,5	Netherlands	7.2
6,7	Sweden	7.2
10,7	United Kingdom	6.9
7,9	Greece	6.7
5,6	Finland	6.6
7,5	**Catalonia**	**6.4**
5,4	Belgium	6.2
7,3	**Barcelona**	**6.1**
6,3	Slovenia	5.9
5,5	**Spain**	**5.7**
5,7	Norway	5.7
4,4	Italy	4.9
5,3	Germany	4.7
n.d	Morocco	4.4
n.d	Bulgaria	3.5

Note: Entrepreneurship activity includes early-stage firms (less than three months trading) and new businesses (3 to 42 months of trading).
The original database contains 63 countries, although the table only includes a small sample of selected reference countries

Source: *Global Report and Executive Report Catalonia 2015.* Global Entrepreneurship Monitor (GEM)

Entrepreneurial activity in Europe. 2015
(% population 18-64 years old)

Source: *Global Report and Executive Report Catalonia 2015*. Global Entrepreneurship Monitor (GEM)

Business outlook in the European Union for 2016

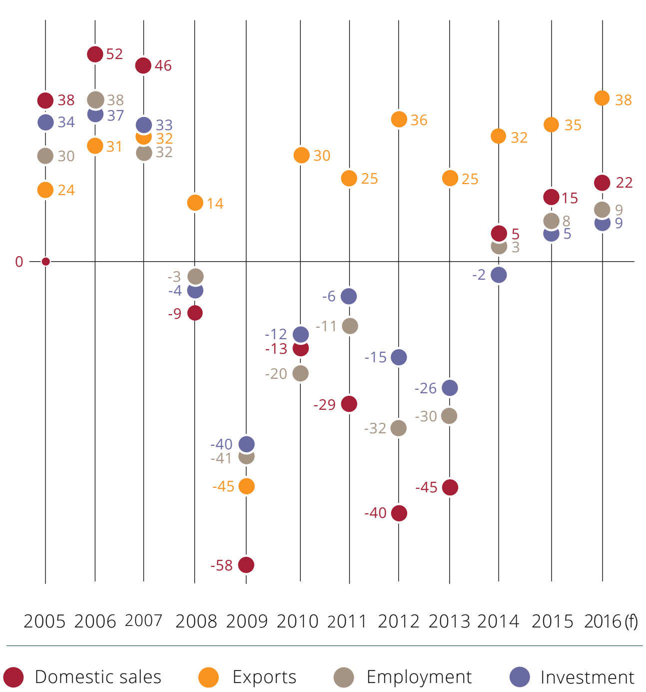
The outlook for export growth is higher than EU forecasts

According to a survey by Eurochambres[2], the outlook for Catalonia's businesses in terms of turnover (exports and domestic sales), employment and investment for 2016 are positive and significantly up on the previous year, especially in the case of domestic sales. These results confirm the strong performance of the Catalan economy over the year, which has led to new and higher forecasts for GDP growth for 2016, rising to 3.1% in the case of Barcelona Chamber of Commerce.

When comparing Catalonia's results with Europe[3] one can see that prospects are more favourable in Catalonia for exports, lower for investment, and similar regarding the trend in domestic sales and employment. Specifically, Catalonia occupies the 7th position in the ranking of European trends in terms of exports, which is headed by Portugal and Spain. For domestic sales, Catalonia located in the middle of the table and close to the European average according to the countries analyzed.

Business prospects in Catalonia. 2016

(Balances in percentages)



(f) forecast

Source: Idescat and Barcelona Chamber of Commerce, based on Eurochambres

[2]The survey was prepared in September 2015 based on the opinion of 60,000 European companies, of which 1,304 are located in Catalonia.

[3]The data for Europe refer to the weighted average balance of European Union countries, except Latvia, Ireland, Finland and Greece because their data are not significant or comparables; and France, UK, Denmark, Sweden and Poland because they did not participate in the survey.

Business prospects in the European Union. 2016

Country	Domestic sales (Balance in p.)	Country	Exports (Balance in p.)	Country	Employment (Balance in p.)	Country	Investment (Balance in p.)
Portugal	66	Portugal	57	Montenegro	46	Portugal	47
Croatia	55	**Spain**	**51**	Portugal	38	Lithuania	39
Romania	44	Romania	51	Romania	35	Serbia	38
Lithuania	43	Belgium	48	Turkey	35	Slovenia	33
Turkey	42	Slovenia	48	Croatia	34	Malta	32
Spain	**41**	Croatia	40	Malta	31	Romania	32
Serbia	40	**Catalonia (BCN)**	**38**	Cyprus	29	Croatia	31
Montenegro	37	Estonia	35	**Spain**	**27**	Italy	28
Estonia	36	Bulgaria	34	Estonia	27	Belgium	25
Malta	35	Turkey	33	Belgium	23	Bulgaria	24
Belgium	35	Lithuania	33	Lithuania	22	Estonia	24
Slovenia	27	Austria	32	Slovenia	22	Cyprus	23
Luxembourg	26	Serbia	31	Serbia	15	**Spain**	**23**
EU*	**25**	Cyprus	28	Bulgaria	15	Turkey	20
Slovakia	23	Slovakia	26	Czech Republic	14	Montenegro	16
Catalonia (BCN)	**22**	Malta	26	Luxembourg	14	Luxembourg	12
Czech Republic	16	**EU***	**26**	Slovakia	9	Czech Republic	11
Bulgaria	16	Luxembourg	26	**EU***	**9**	Germany	11
Italy	13	Montenegro	21	**Catalonia (BCN)**	**9**	**EU***	**9**
Austria	-5	Netherlands	19	Netherlands	5	**Catalonia (BCN)**	**9**
Cyprus	-6	Italy	18	Germany	5	Slovakia	8
Hungary	-27	Germany	16	Italy	-3	Netherlands	7
		Czech Republic	14	Austria	-8	Hungary	-7
		Hungary	-27	Hungary	-19	Austria	-12

Note: The balances are calculated as the difference between the percentage of responses indicating an increase and the percentage of responses indicating a decrease.
This year there is no information at the regional level because regional participation has been very heterogeneous.
*Data for Europe refer to the weighted average of the balances for countries in the European Union except Latvia, Finland Ireland and Greece because the data are not significant or comparable - and France, UK, Denmark, Sweden and Poland have not participated in the survey.

Source: Idescat and Barcelona Chamber of Commerce, based on Eurochambres data and Spanish Chamber of Commerce

Main cities in the world in terms of delegate numbers at international congresses held in 2015

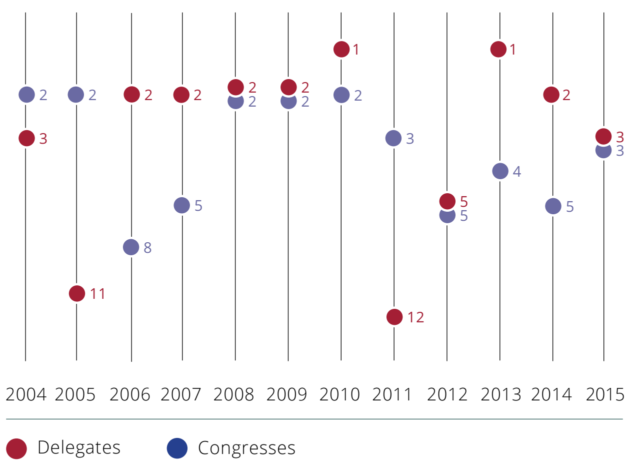
Barcelona is the third top city in the world in terms of number of congresses organized and delegates

In 2015, Barcelona was in the third top ranked city in the world in terms of number of international congresses organized and number of delegates, rising two places compared to the previous year, according to the International Congress and Convention Association (ICCA).

Barcelona organized 180 international congresses in 2015, coming behind Berlin and Paris, but this year jumping ahead of Madrid and Vienna. Meanwhile, the number of delegates at international conferences stood at 108,961 people in 2015, only topped by Vienna and London. All three cities, along with Berlin, exceeded the 100,000-delegate mark. Importantly, the ICCA ranking is made from registered conferences which have a minimum of 50 delegates and, in addition, it only includes events that have a minimum rotation between at least three countries, so it does not include, for example, the Mobile World Congress, which has its venue fixed in Barcelona and yet brings together more than 80,000 participants.

Considering a broader analysis period between 2004 and 2013, Barcelona is also the world's third top city in number of international congresses with 1,859 meetings, ahead of Berlin and Madrid and behind only Paris and Vienna

Barcelona's position



Source: International Congress and Convention Association (ICCA)

Top cities in the world in terms of delegate numbers and international congresses held. 2015

Congresses 2014	Cities	Var. 2015/2014 (Percentage)	Congresses 2015
193	Berlin	1.0	195
214	Paris	-13.1	186
182	**Barcelona**	**-1.1**	**180**
202	Vienna	-11.9	178
166	London	3.0	171
200	Madrid	-14.5	171
142	Singapore	9.9	156
130	Istanbul	13.8	148
109	Lisbon	33.0	145
105	Copenhagen	31.4	138

Source: International Congress and Convention Association (ICCA)

Delegates 2014	Cities	Var. 2015/2014 (Percentage)	Delegates 2015
81,902	Vienna	52.5	124,899
89,969	London	30.5	117,397
127,469	**Barcelona**	**-14.5**	**108,961**
76,880	Berlin	35.7	104,299
57,497	Singapore	34.1	77,105
130,516	Paris	-42.2	75,470
57,551	Copenhagen	30.8	75,269
46,921	Prage	57.5	73,896
28,177	Vancouver	158.8	72,935
79,356	Amsterdam	-8.6	72,529

Source: International Congress and Convention Association (ICCA)

Quality of life, sustainability and social cohesion

OBSERVATORI BARCELONA

Introduction

Barcelona wants to be a reference point in the transition towards a new economic, social and environmental model, promoting measures to fight poverty and inequality, and how to mitigate and adapt to climate change. The city is internationally renowned for its quality of life, yet it faces challenges to ensure that the welfare and generation of opportunities leads to socioeconomic development for all citizens.

Regarding the dimensions associated with a good quality of life, Barcelona is considered the 15th safest city in the world, especially in the healthcare field, according to The Safe Cities Index for 2015. The city also stands as an international benchmark in the field of sport, taking 3rd spot in the Sports Cities ranking for 2015, which is an activity that in addition to directly contributing to the quality life of Barcelona's residents, also generates an important economic and social impact.

According to Eurobarometer's Quality of Life in European Cities index in 2015, published by the European Commission in 2016, the satisfaction of Barcelona's residents regarding the city and the neighbourhood where they live stands at 92% of respondents, one of the highest percentages of the 79 cities analysed. Barcelona gets good reviews relating to areas such as public space, security, public transport, cleanliness or trust in neighbours, but results are less favourable in areas such as services administration or the environment.

Barcelona is also one of the cities with the best results in dimensions related to sustainability, according to the Environmental Sustainable Cities Index 2016, which shows a relatively low volume of CO_2 emissions equivalent per inhabitant compared to other cities in the world. As such, Barcelona's Climate Commitment was presented during the celebration of the 21st United Nations Climate Change Conference (COP 21) in Paris. This commitment was the result of an extensive process of citizen participation, which defined objectives for 2030 as a 40% reduction in CO_2 equivalent emissions compared to 2005 values and it proposed an increase of 1.6 km^2 of green area, integrating and giving visibility to existing strategies and priority to municipal projects of significant impact.

The economic recession that began in 2008 has led to many European countries and regions experiencing considerable increases in levels of inequality, poverty and social exclusion. Barcelona's residents have seen average incomes fall and regional inequalities widen, so that in 2014 the ratio of household disposable income comparing the highest and lowest neighbourhoods in the city rose to 7.3, while the percentage of people with high, medium and low income stands at 16.6%, 46.8% and 36.6% of the total, respectively.

In Catalonia as a whole, the Gini coefficient has a similar value to the OECD average, while the rate of risk of poverty or social exclusion is below the European Union average. The fight against inequality and poverty is a priority for the City Council, which is developing inclusive policies in terms of business, labour, culture, and welcoming immigrants or housing, among others, a strategy which it shares with the third sector, social partners and all citizens under the Citizen Agreement for an Inclusive Barcelona.

In terms of quality of life, Barcelona is considered the 15th safest city in the world

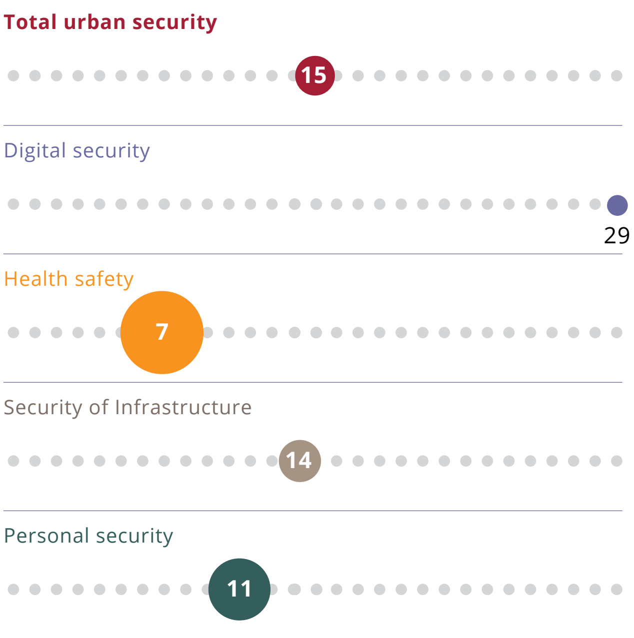
Security in cities around the world in 2015

Barcelona, among the safest cities in the world

According to The Safe Cities Index 2015 report by the British magazine The Economist, Barcelona is the 15th safest city in this global ranking of 50 cities across all continents, led by Tokyo, Singapore and Osaka. Barcelona came in 4th position amongst European cities, behind Stockholm, Amsterdam and Zurich, but ahead of London, Madrid or Paris.

The report's findings are based on 40 indicators related to health, infrastructure and citizen and digital security. Notably, Barcelona came 7th on health security, which takes into account aspects like public access to the health system, the ratio of beds and medical professionals per thousand inhabitants, air and water quality, and life expectancy. Barcelona came 11th in terms of personal safety, 14th in terms of infrastructures, and 29th for digital security.

Positioning of Barcelona on urban security categories. 2015



Source: *The Safe Cities Index 2015*. The Economist Intelligence Unit

Security in cities worldwide. 2015

Position	City	Index S/100
1	Tokyo	85.6
2	Singapore	84.6
3	Osaka	82.4
4	Stockholm	80.0
5	Amsterdam	79.2
6	Sydney	78.9
7	Zurich	78.8
8	Toronto	78.8
9	Melbourne	78.7
10	New York	78.1
11	Hong Kong	77.2
12	San Francisco	76.6
13	Taipei	76.5
14	Montreal	75.6
15	**Barcelona**	**75.2**
16	Chicago	74.9
17	Los Angeles	74.2
18	London	73.8
19	Washington DC	73.4
20	Frankfurt	73.1
21	Madrid	72.4
22	Brussels	71,7
23	Paris	71.2
24	Seoul	70.9
25	Abu Dhabi	69.8

Source: *The Safe Cities Index 2015*. The Economist Intelligence Unit

Sport in cities around the world in 2015

Barcelona, third city most associated with sports

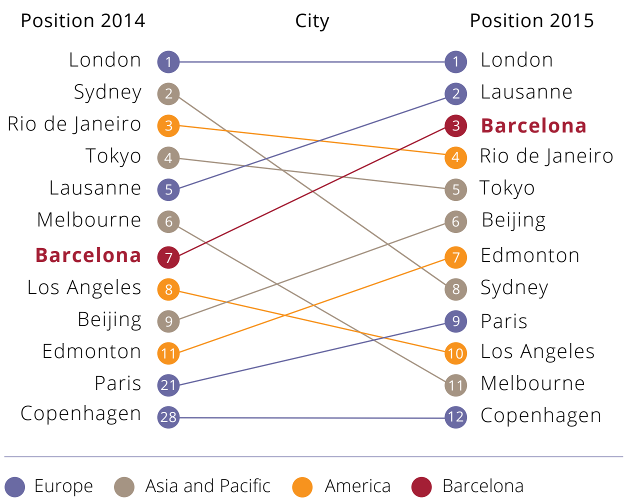
Barcelona is ranked 3rd among 50 cities evaluated in the Ranking of Sports Cities in 2015, prepared by Around the Rings and TSE Consulting based on votes by public opinion specialists and the general public to determine which cities were most associated with sport.

The city has remained in the top ten since the first edition (2012), a position only shared with other Olympic cities such as London, Beijing, Sydney and Tokyo. Barcelona is still getting the most out of the physical assets that were the legacy of the 1992 Olympic Games, namely with a new leisure development called Open Camp located in the Montjuïc Olympic Ring. This is the first theme park in the world dedicated to sport, according a study by the University Pompeu Fabra, and which is forecasting a first year turnover of more than 100 million euro.

According to the 'Survey of sports habits in Barcelona' carried out in 2013, 55.6% of Barcelonans say they practice some physical activity or sport and the city has 67,500 federated sportspeople. In addition to contributing directly to improve the quality of life of citizens, sport has a significant economic and social impact on the city. A report titled 'Study of the impact of sport in Barcelona: economic, labour and social indicators' carried out by the Barcelona City Council, showed there were some 2,000 firms and 2,500 organizations related to sports that generate more than 2,100 million euro in turnover, with 27,600 salaried workers and 35,000 volunteers in 2013.

Also, the city has a sports club that is a worldwide reference: Football Club Barcelona, which has a world renowned brand that has a global economic impact estimated by Deloitte as generating 906 million euro during the 2014/15 season and 16,620 jobs.

Sport in cities worldwide. 2015



Source: *Ranking of Sports Cities 2015*. Around the Rings and TSE Consulting

Distribution of income in the main regions of the OECD

Catalonia's level of equality in terms of distribution of income is close to the OECD average

The Gini coefficient is a benchmark indicator to measure the level of inequality in the distribution of income. Catalonia's rate is 0.325, which is slightly higher than the OECD average (0.315) and close to places like Stockholm, Ontario, Vienna and Madrid. This coefficient can take values between 0 and 1, where 1 represents the most unequal income distribution (one person has all the income and the rest, nothing) and 0 the most egalitarian (everyone has the same income).

The global trend shows an increase in inequality. According to the report 'In it together', by the OECD (2015), many countries have seen the distance between rich and poor in the population standing at their widest level for the past 30 years and this is now a central issue in the political and academic debate because its social impact is having a negative impact on economic growth, overall confidence in our institutions and health. For the regions analyzed, the levels of lower inequalities occur in the regions in the north and central Europe, including Helsinki and Copenhagen, as well as in Japan. However, some capital regions of western Europe like Greater London and Brussels have higher levels of economic inequality, although these do not reach the levels seen in American regions like New York, Mexico Federal District, or Santiago de Chile, with coefficients between 0.4 and 0.5.

According to the survey of living conditions and habits of the population of Catalonia, Barcelona and the rest of the Metropolitan area (AMB) saw Gini levels improve between 1985 and 2006 although there has been a reversal in this process between 2006 and 2011 (latest coefficient available), when the city and the rest of the AMB scored a Gini index of 0.346 and 0.301 respectively, a similar result to 1990's index.

Gini coefficient

OECD region	City included in the region	Gini Coefficient
Southern Finland	Helsinki	0.242
Bratislava	Bratislava	0.275
Capital (Denmark)	Copenhagen	0.283
Central Hungary	Budapest	0.286
Berlin	Berlin	0.288
Rhône-Alpes	Lyon	0.288
Bavaria	Munich	0.294
Oslo and Akershus	Oslo	0.295
South Kanto	Tokyo	0.300
Lombardy	Milan	0.304
Stockholm	Stockholm	0.314
OECD average		**0.315**
Central Region (Poland)	Warsaw	0.321
Catalonia	**Barcelona**	**0.325**
Ontario	Toronto & Ottawa	0.331
Vienna	Vienna	0.337
Madrid	Madrid	0.339
Ile de France	Paris	0.343
Tel Aviv District	Tel Aviv	0.345
Lazio	Rome	0.347
New South Wales	Sydney	0.348
Athens	Athens	0.355
Brussels Capital Region	Brussels	0.358
Greater London	London	0.386
Washington	Washington	0.389
New York	New York	0.415
Federal district	Mexico City	0.482
Santiago Metropolitan	Santiago de Chile	0.484

Note: This table shows the Gini coefficient based on disposable income after taxes and transfers for the most recent years available in a selection of OECD regions. Data Extraction Data: June 2016.

Source: *Regional Income Distribution and Poverty Database,* OCDE

Population at risk of poverty or social exclusion in Europe's regions in 2015

The 'At risk of poverty or social exclusion' rate in Catalonia is lower than in the EU

According to Eurostat data, the rate of population at risk of poverty or social exclusion (AROPE) of Catalonia stood at 19.8% in 2015, which is lower than the Spanish rate (28.6%) and that of EU-28 (23.7%).

Above Catalonia, stand regions such as Budapest, Rome and Dublin, while below –but with similar values– are Berne and Amsterdam. Regions such as Prague or Helsinki show the lowest rates in the sample with values close to 10-12%.

The rate at Risk of Poverty or Social Exclusion (AROPE) indicates the percentage of the population that is at least in the following cases: at risk of poverty, in a situation of severe material deprivation or live in homes with low labour intensity. If the calculation for the population at risk of poverty with the specific threshold for Catalonia is done (60% of median annual income equivalent after available social benefit transfers for the Catalan population, rather than the median of Spain) the AROPE rate is 23.5%, a figure that is closer to the average for the European Union but still below it. The AROPE rate for Barcelona in 2011, when calculated with the threshold for Catalonia, stood at 28.1%, while for the Metropolitan area it was 29.2%.

The economic crisis that began in 2008 has led to a significant increase in levels of poverty and social exclusion in many European countries. Reducing the number of people at risk of poverty or social exclusion in the EU is one of the key objectives of the Europe 2020 strategy, which aims to promote a model of smart, sustainable and inclusive growth.

Population at risk of poverty or social exclusion. 2015

Country	Region (main city)	AROPE rate (%)
Czech Republic	Prague (Prague)	10.6
Finland	Helsinki-Uusimaa (Helsinki)	12.3
Sweden	Stockholm (Stockholm)	13.1
Norway	Akershus og Oslo (Oslo)	14.6
Slovakia	Bratislavský kraj (Bratislava)	16.5*
Slovenia	Slovenia - West (Ljubljana)	17.2
Netherlands	Netherlands - West (Amsterdam)	18.0
Italy	Lombardy (Milan)	18.1*
Denmark	Hovedstaden (Copenhagen)	18.8
Switzerland	Espace Mittelland (Bern)	19.7*
Spain	**Catalonia (Barcelona)**	**19.8**
Spain	Madrid (Madrid)	20.5
Romania	Bucuresti - Ilfov (Bucharest)	20.5
Poland	Central Region (Warsaw)	22.6*
Hungary	Central Hungary (Budapest)	24.3
Average EU-28**		**23.7**
Italy	Lazio (Rome)	24.7*
Ireland	Ireland - South East (Dublin)	26.3*
Spain		**28.6**
Bulgaria	Bulgaria - Southwest (Sofia)	30.0
Greece	Attica (Athens)	31.5

Note: The table shows the most recent data available for each of the regions selected for this sample (2015, or in the cases marked * 2014).
**The UE28 average is the weighted average of the results of countries.

Source: Eurostat

Sustainable Cities in 2015

Barcelona, among the 25 most sustainable cities

Barcelona ranks 23rd in terms of its Environment according to the Sustainable Cities Index 2016 prepared by consultancy Arcadis, which compares 100 global cities on aspects such as environmental risks, green spaces, energy, air pollution, emissions greenhouse gases, waste management and access to drinking water and sanitation. With a score similar to Edinburgh and Munich, Barcelona came top on the indicators concerning access to drinking water and sanitation, but had the worst percentage in of green spaces in relation to the city area. This is an issue that the City is trying to improve, along with others such as air pollution, which, according to the European survey 'Quality of Life in Cities 2015', showed a rather unfavourable response from citizens.

Also, Barcelona is in 24th position in the General Index for Sustainable Cities 2016, which as well as the environment, analyzes social and economic dimensions.

'The European City Ranking 2015 Best practices for clean air in urban transport', published by German NGO Bund, in collaboration with the European Environmental Bureau, placed Barcelona in 3rd position in terms of promoting public transport, with a score similar to Milan and Stockholm. In the case of Barcelona, one highlighted aspect was the re-planning of the bus network (2012), a previous extension of the Metro network (2008 and 2010) and the promotion of public transport with communication policies promoting the use of public transport, as well as the city's commitment to increase the proportion of public transport usage compared to other transport means.

Position and score on the environment aspect. 2015

Position	City	Result (%)
1	Zurich	87.9
2	Stockholm	87.1
3	Geneva	86.0
4	Vienna	84.5
5	Frankfurt	84.1
6	Wellington	81.1
7	Rome	79.4
8	Sydney	77.3
9	London	76.5
10	Hamburg	76.4
11	Madrid	76.0
12	Singapore	75.8
13	Copenhagen	74.8
14	Manchester	74.2
15	Birmingham	73.5
16	Berlin	73.0
17	Rotterdam	72.4
18	Vancouver	72.1
19	Amsterdam	72.1
20	Glasgow	71.2
21	Leeds	71.0
22	Edinburgh	70.9
23	**Barcelona**	**70.5**
24	Munich	70.3
25	Canberra	69.8
26	Seoul	69.7
	...	
97	Beijing	36.0
98	Doha	35.7
99	Wuhan	35.5
100	Calcuta	30.9

Note: The result is the average of relative positions to other cities on each part of the sub-index

Source: *Sustainable Cities Index 2016.* Arcadis

CO_2 equivalent emissions per capita in the world's cities in 2016

Barcelona is one of the cities with the lowest levels of CO_2e emissions per inhabitant

Barcelona is amongst the top 15 cities with the lowest volume of emissions of greenhouse gases per capita out of a total of 60 cities that report as part of GPC (Global Protocol for Community-Scale Greenhouse Gas Emission Inventories) to the Open Data portal of CDP. The level of CO_2 equivalent emissions tons per capita, which stands at 2.22 per inhabitant in Barcelona, is similar to cities like Paris (2.29) or Oslo (2.04) and this is on the low side when making international comparisons, well below the values of cities like Vancouver, Greater London or New York. The city with the lowest emissions per inhabitant is Brazil's Recife, while cities like Melbourne (31.71) and Rotterdam (50) have the highest levels.

Barcelona's commitment to sustainability is notable after it launched the Barcelona Climate Commitment, backed by 800 citizens' organizations linked to the Barcelona + Sostenible network with signatories from the Citizens' Commitment to Sustainability 2012-2022 together with the City Council of Barcelona. This commitment proposes reaching certain goals for 2030 including reducing CO_2 equivalent emissions per capita by 40% compared to 2005 and increasing per capita urban green space by 1 m^2, which are strategic measures like the Green and Biodiversity Plan for Barcelona 2020, and projects like energy saving and efficiency programmes for municipal buildings.

CO_2 equivalent emissions per capita. 2016

City	Country	CO_2 emissions equivalent (metric tons)	t of CO_2 equivalent / inhabitant
Recife	Brazil	1,883	0.00
Addis Abeba	Ethiopia	3,708,292	1.10
Lagos	Nigeria	29,426,266	1.40
Metropolitan Municipality of Lima	Peru	15,432,105	1.76
Oslo	Norway	1,340,422	2.04
Barcelona	**Spain**	**3,568,967**	**2.22**
Paris	France	5,195,663	2.29
Metropolitan District of Quito	Ecuador	5,233,350	2.34
Mexico City	Mexico	23,655,111	2.67
Rio de Janeiro	Brazil	20,268,045	3.13
Madrid	Spain	10,257,048	3.25
Vancouver	Canada	2,442,602	4.05
Seoul Metropolitan Government	South Korea	47,612,664	4.62
Greater London Authority	United Kingdom	40,190,000	4.67
Wellington	New Zealand	1,084,979	5.32
Greater Manchester	United Kingdom	14,889,318	5.39
Taipei	Taiwan	14,957,404	5.53
Cape Town	South Africa	22,643,846	5.78
New York	US	49,385,508	5.82
Buenos Aires	Argentina	19,667,128	6.44
Toronto	Canada	18,320,966	6.65
Athens	Greece	4,711,576	7.10
Ljubljana	Slovenia	2,079,758	7.24
Los Angeles	US	29,024,807	7.39
Sydney	Australia	3,556,529	17.32
Melbourne	Australia	4,372,420	31.71
Rotterdam	Netherlands	31,512,000	50.50

Note: The original database contained 188 cities, and the table presents a sample of the 60 benchmark cities that use GPC to report their data. CDP is the only global disclosure system that enables businesses, cities, states and regions to manage their data on environmental impact.

Source: *Citywide Emissions 2016 (CDP)* and data from the Energy Agency of Barcelona

Labour market and training

OBSERVATORI BARCELONA

Introduction

In 2015, the EU economy grew at a rate of 1.9%, which showed a consolidated improvement on labour indicators that began in 2013, after the recession brought about a reduction in employment and an increase in unemployment across the whole of Europe in most member countries with greater or less intensity. Despite this, the current levels of employment and unemployment are still lower and higher –respectively– than before 2008. There are still significant contrasts between the labour markets of northern and eastern Europe and the southern part of the continent as well as differences between groups of the population that are more or less disadvantaged.

This positive trend is also observed in Catalonia, which closed 2015 with an annual increase in employment of over 53,000 people and a decrease in the level of the unemployed population of almost 88,000 people, according to the Labour Force Survey published by Spain's INE. However –as shown by data presented in the report for 2015–, the rate of employment in Catalonia is below the average for Europe and the unemployment rate is almost double the average rate for the EU although it has been falling since 2013.

In this context, net employment in Barcelona in 2015 rose for the second consecutive year after six years of labour market adjustments. Indeed, the city closed the year with nearly 34,000 affiliated social security members more than compared to a year ago, an activity rate (for the group 16 to 64 years) of 79.8% and an employment rate of 69.2% in the fourth quarter, which was more than 7 and 3 percentage points respectively higher than the European averages-, while the unemployment rate decreased to 13.3%, which is still well below the averages of Catalonia and Spain, which also reduces the difference with the EU-28 rate.

Barcelona City Council has developed a new employment strategy for the period 2016-2020 which is defined by three strategic lines: improvements designed to increase employability for everyone; to locate employment at the centre of local politics by making this a transversal priority implicating all areas of the city council, and for bring services closer to the local population to meet the needs of people with territorial strategies regarding employment.

One of the most important assets that the Barcelona area has is its critical mass of qualified human capital. Importantly, in 2015 the percentage of working population with university studies in Catalonia grew to reach 44.6% and in the case of working women this exceeded 50% for the first time, which are clearly higher rates than the averages for the European Union.

Finally, Barcelona is still a reference city in business training, because it is the only city with two European institutions (IESE and ESADE) in the top ten best business schools on the continent, according to The Financial Times and The Economist Intelligence Unit.

Barcelona saw net job creation for the second consecutive year with almost 34,000 more affiliated social security members compared to a year ago

Employment rate in European regions in 2015

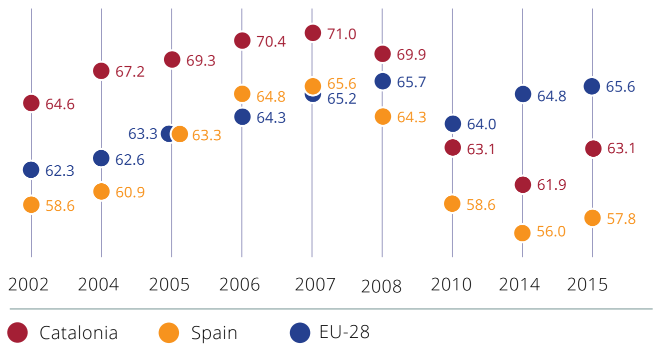
The employment rate increases in Catalonia

In 2015 the employment rate in the EU grew 0.8 percentage points compared to 2014 as a result of moderate increases in most of the regions analyzed.

As such, the employment rate in Catalonia and Spain increased for the second year by 1.2 and 1.8 percentage points with respective to the previous year, overtaking the EU average increases, even thought the actual rates remain among the lowest on the continent due to the sharp falls experienced from 2008 to 2013. Thus, the employment rate in Catalonia was 63.1%, meaning it is below the European average for seventh consecutive year, but clearly above the Spanish rate by 5.3 percentage points and above regions like Rome, Montpellier or Brussels. On the other hand, the rate of female employment increased to 59% in Catalonia in 2015, which is above the Lombardy region or Dublin and well above the Spanish average (52.7%), but still below the European average and still far behind the leaders of top territories on the continent where the rate stands at about 70%.

The fourth quarter of 2015 saw the employment rate stand at 69.2% in Barcelona, which represented an increase on this indicator compared to the same period in 2014 by 1.6 percentage points. The rate of female employment in the City (64.7%) remained four points above the average for Europe after stabilizing (-0.2 points) in inter-annual terms. Suffice to say that during the first two quarters of 2016 there has been a continuation in employment rate growth both in Barcelona where it has breached the 70% mark, and in Catalonia.

Employment rate (%)



Source: Idescat and Eurostat

Employment rate in European regions. 2015

Female employment rate (%)	Region (CITY)	Employment rate (%)
74.4	Upper Bavaria (MUNICH)	78.8
76.3	Stockholm (STOCKHOLM)	77.9
72.6	Stuttgart (STUTTGART)	77.2
75.3	Oslo (OSLO)	76.4
71.6	North Holland (AMSTERDAM)	75.8
72.5	Denmark (COPENHAGEN)	75.3
66.1	Prague (PRAGUE)	74.2
69.1	Darmstadt (FRANKFURT)	73.8
71.0	Eastern Scotland (EDINBURGH)	73.6
72.0	Southern Finland (HELSINKI)	72.7
66.4	South Holland (ROTTERDAM)	72.1
64.9	London (LONDON)	71.7
63.4	Greater Manchester (MANCHESTER)	69.6
66.5	Berlin (BERLIN)	69.0
63.6	Mazowsze (WARSAW)	68.8
61.5	Central Hungary (BUDAPEST)	67.6
66.5	Lithuania (VILNIUS)	67.2
62.9	Rhône-Alpes (LYON)	66.6
63.5	Ile de France (PARIS)	66.2
64.3	Lisbon (LISBON)	65.7
60.3	**EUROPEAN UNION**	**65.6**
61.3	Madrid (MADRID)	65.3
57.2	Lombardy (MILAN)	65.1
62.0	Vienna (VIENNA)	64.6
58.9	South and East (DUBLIN)	64.1
59.0	**Catalonia (BARCELONA)**	**63.1**
59.2	Basque Country (BILBAO)	62.9
51.0	Lazio (ROME)	59.0
55.9	Languedoc-Roussillon (MONTPELLIER)	58.7
52.7	**Spain**	**57.8**
49.2	Brussels (BRUSSELS)	54.2

Note: population between 15 and 64 years old.
The original database contains nearly 450 regions, although the table contains only a reference sample of selected regions

Source: Eurostat

Unemployment rate in European regions in 2015

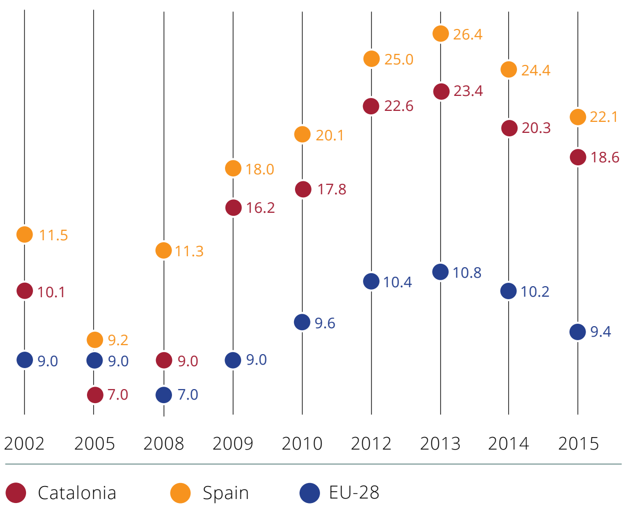
The unemployment rate in Catalonia has fallen, but it is still far from the European average

In 2015, the economic recovery seen across the European Union led to an end-of-year unemployment rate of 9.4%, 0.8 percentage points lower than in 2014. The unemployment situation continues to affect Southern Europe with special intensity, including Spain and Catalonia. The gap between the EU average has decreased compared to 2014, after having seen annual declines of 2.3 and 1.7 percentage points respectively.

Thus, the unemployment rate in Catalonia reached an annual average rate of 18.6% in 2015, which is almost double the European average rate and far from the main reference regions, although it is still below the Spanish average (22.1%). Meanwhile, the female unemployment rate stood at 19.4%, 0.6 points below that of 2014, but higher than the overall unemployment rate for the first time since 2009.

In the fourth quarter of 2015, the unemployment rate stood at 13.3% in Barcelona, which in annual terms shows a third consecutive year-on fall (-3.1 points). Thanks to this development, the unemployment rate in the city is closer to the European Union indicator than to the Spanish rate.

Unemployment rate (%)



Source: Eurostat

Unemployment rate in European regions. 2015

Female unemployment rate (%)	Region (CITY)	Unemployment rate (%)
2.4	Upper Bavaria (MUNICH)	2.7
3.3	Prague (PRAGUE)	2.8
3.3	Stuttgart (STUTTGART)	3.3
4.0	Darmstadt (FRANKFURT)	4.1
4.6	Oslo (OSLO)	4.7
5.4	Central Hungary (BUDAPEST)	5.3
5.7	Eastern Scotland (EDINBURGH)	6.0
6.5	North Holland (AMSTERDAM)	6.2
6.7	London (LONDON)	6.2
6.2	Mazowsze (WARSAW)	6.4
6.5	Greater Manchester (MANCHESTER)	6.5
6.9	Denmark (COPENHAGEN)	6.7
7.3	Stockholm (STOCKHOLM)	7.0
8.6	South Holland (ROTTERDAM)	7.8
8.7	Lombardy (MILAN)	7.9
7.5	Southern Finland (HELSINKI)	8.0
7.3	South and East (DUBLIN)	9.0
9.0	Rhône-Alpes (LYON)	9.1
8.2	Lithuania (VILNIUS)	9.1
8.1	Berlin (BERLIN)	9.4
9.5	**EUROPEAN UNION**	**9.4**
8.4	Ile de France (PARIS)	9.6
8.8	Vienna (VIENNA)	10.6
12.3	Lazio (ROME)	11.8
12.2	Languedoc-Roussillon (MONTPELLIER)	12.9
13.0	Lisbon (LISBON)	13.1
14.7	Basque Country (BILBAO)	14.8
17.3	Madrid (MADRID)	17.1
15.8	Brussels (BRUSSELS)	17.3
19.4	**Catalonia (BARCELONA)**	**18.6**
23.5	**Spain**	**22.1**
27.4	Attica (ATHENS)	25.2

Note: population over 15 years old.
The database contains nearly 450 regions, although the table shows only shows a reference sample of selected regions

Source: Eurostat

Working population with tertiary education in European regions in 2015

More than half of the female workers in Catalonia have tertiary education

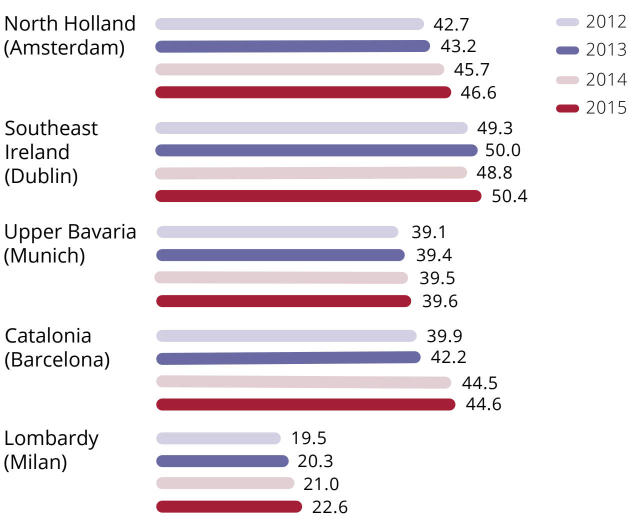
According to Eurostat data, in 2015, 44.6% of the working population in Catalonia had a university degree, which showed a stable trend with a slight increase of 0.1 percentage point compared to the previous year. This value is clearly above the European Union average (35%), ahead of benchmark regions like Manchester, Munich, Lyon and Berlin, and also above the Spanish average (42.6%).

The percentage of Catalan female workers trained with a university degree is higher than 50% for the first time, rising to 51.1%, having grown by 1.7 percentage points compared to 2014. Also, this indicator was again well above the value of the European Union (38.7%) and also higher than reference European regions and above the average for Spain (48.1%).

These results show the rise in higher education in Catalonia in recent years, although there needs to be further work done to reach the level of education seen in the workforce in Catalonia to the levels seen in Northern Europe.

Working population with a university degree

(Percentage of total employment)



Source: Eurostat

Working population with a university degree in European regions. 2015

Women workers with university degree (%)	Region (CITY)	Total working people with degrees (%)
62.2	London (LONDON)	60.0
62.6	Oslo (OSLO)	57.8
58.5	Basque Country (BILBAO)	55.3
62.3	Southern Finland (HÈLSINKI)	55.2
58.8	Eastern Scotland (EDINBURGH)	54.3
58.9	Brussels (BRUSSELS)	54.2
56.2	Madrid (Community) (MADRID)	53.0
57.0	Capital Region (COPENHAGEN)	51.7
56.6	Stockholm (STOCKHOLM)	51.4
52.6	Ile de France (PARIS)	50.5
56.5	South and East (DUBLIN)	50.4
54.0	South West Scotland (GLASGOW)	48.8
48.7	North Holland (AMSTERDAM)	46.6
47.4	Vienna (AT) (VIENNA)	46.3
52.9	Lithuania (VILNIUS)	45.4
51.1	**Catalonia (BARCELONA)**	**44.6**
49.3	Attica (ATHENS)	44.5
52.3	Mazowsze (WARSAW)	43.8
47.5	Greater Manchester (MANCHESTER)	43.4
51.5	Southwest (BG) (SOFIA)	43.2
47.0	Rhône-Alpes (LYON)	42.7
48.1	**Spain**	**42.6**
43.3	Prague (PRAGUE)	42.6
43.4	Berlin (BERLIN)	41.7
46.0	Provence-Alpes-Côte d'Azur (MARSEILLE)	41.5
42.6	South Holland (THE HAGUE)	41.3
45.1	Bucharest-Ilfov (BUCHAREST)	41.2
44.9	Central Hungary (BUDAPEST)	41.2
35.0	Upper Bavaria (MUNICH)	39.6
42.4	West Midlands (BIRMINGHAM)	39.4
44.3	Valenciana (VALÈNCIA)	38.8
38.7	**EUROPEAN UNION**	**35.0**

Note: Percentage of the population between 25 and 64 years old with a university degree.
The database contains nearly 450 regions, although the table only shows a reference sample of selected regions.

Source: Eurostat

Best European business schools in 2016

Barcelona is the only city with two education centres in the Top Ten MBA business schools ranking for Europe

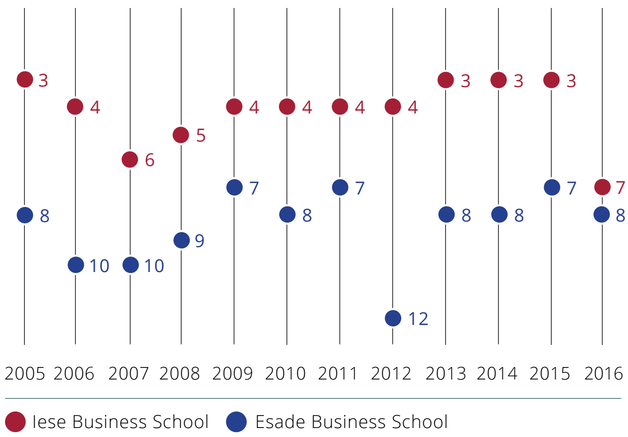
According to the Financial Times ranking of the best 100 full-time MBA programmes in the world, now in its sixteenth year, Barcelona's IESE and ESADE business schools are in 7th and 8th place respectively in the European ranking, remaining above recognised schools like Saïd Business School, or Britain's University of Oxford or Warwick Business School. This consolidates Barcelona's position as the only city with two education centres in the top ten best MBA Business Schools in Europe in 2016 for four consecutive years. Also, these two institutions are among the top 25 schools in the world with IESE in 16th and ESADE in 23rd position.

Regarding the results of the previous year, IESE is down to 7th position in the European ranking, after holding 3rd spot for three consecutive years, and dropping eight places in the world ranking; ESADE fell a position in the European ranking and four spots in the world ranking, standing in 23rd position.

According to the "Which MBA? full-time MBA" annual ranking published by The Economist Intelligence for the last thirteen years, IESE is in 3rd spot in the European ranking and 14th position in the world; ESADE occupies the 6th place at the European level and 21st worldwide, improving three positions compared to the previous year.

These indicator show that year after year Barcelona is consolidating its position as a city of excellence and a magnet for business education at the international level.

Position in the European ranking



Source: *Global MBA Ranking,2016.* Financial Times

Best European Business Schools. 2016

European ranking	Business school	City	World ranking
1	Insead	Fontainebleau	1
2	London Business School	London	3
3	University of Cambridge: Judge	Cambridge	10
4	IE Business School	Madrid	12
5	IMD	Lausanne	13
6	HEC Paris	Paris	15
7	**Iese Business School**	**Barcelona**	**16**
8	**Esade Business School**	**Barcelona**	**23**
9	SDA Bocconi	Milan	25
10	University of Oxford: Saïd	Oxford	28
11	Imperial College Business School	London	35
12	Lancaster University Management School	Lancaster	36
13	City University: Cass	London	37
14	Alliance Manchester Business School	Manchester	38
15	The Lisbon MBA	Lisbon	40
16	Rotterdam School of Management, Erasmus University	Rotterdam	42
17	Warwick Business School	Coventry	46
18	Mannheim Business School	Mannheim	49
19	Cranfield School of Management	Cranfield	57
20	Universität St. Gallen	St.Gallen	60
21	University of Strathclyde Business School	Glasgow	63
22	ESMT- European School of Management and Technology	Berlin	64
23	Durham University Business School	Durham	66
24	University College Dublin: Smurfit	Dublin	79
25	Edhec Business School	Roubaix	84
26	Birmingham Business School	Birmingham	92
27	Grenoble École de Management	Grenoble	94
28	Leeds University Business School	Leeds	98
28	University of Edinburgh Business School	Edinburgh	98
28	University of Bath School of Management	Bath	98

Source: *Global MBA Ranking 2016.* Financial Times

Knowledge society

OBSERVATORI BARCELONA

Introduction

Given the fast-moving developments in information technology and urban dynamics, Barcelona wants to become an open, equitable, circular, and democratic city and a leader in technology policy with clear public and citizen leadership, even going beyond the construction of a Smart City. As such, the City Council has prepared a plan called 'Barcelona Digital City 2017-2020, Transition towards Technological Sovereignty', which outlines three main areas to develop: modernizing the administration and developing digital transformation to meet current technology challenges so that it is more efficient and effective; diversifying the digital economy and making it more accessible so entrepreneurs and SMEs can access public procurement and provide innovative solutions; and to promote digital education to citizens to facilitate active and participatory democracy and promoting digital sovereignty to contribute to urban democracy that favours openness and public control of data, and protecting the digital rights and freedoms of citizens.

At the same time, technology entrepreneurship has become a new hub of activity in the city. According to the European Digital City Index 2016, Barcelona is the 9th top city in Europe in terms of its support for digital entrepreneurship among 60 of the top European cities. This ecosystem lives from its ability to attract talent, which feeds off initiatives like 4YFN -a business platform for the community of emerging technology companies, driven by the Mobile World Capital Barcelona (MWCB); and Barcelona Startup Week, which aims to promote collaboration between entrepreneurs in the city and networking; or Pier01, a new start up headquarters set up by Barcelona Tech City which offers a pioneering acceleration programme for entrepreneurial digital firms at a growth phase in their development to prepare them for internationalization and attracting talent.

In terms of the knowledge economy, it is very important to recognise the importance of the critical mass of Catalan labour market in sectors with high added value. In 2015, Catalonia was the 5th top European region in terms of the number of people employed in high and medium-high intensity technology manufacturing and 7th in terms of the percentage of population working in science and technology, and 9th in terms of those employed in knowledge services and cutting edge technology. Also, Barcelona is the 5th top city in Europe and 17th in the world in terms of academic scientific production, according to the *Knowledge Cities 2015* ranking, prepared by the UPC's Centre for Land Valuation Policy.

In terms of innovation, there was an increase in the total number of PCT patent applications and technology PCTs in the area of Barcelona in 2013. Regarding business innovation in 2015, Catalonia was again the region with the largest number of companies carrying out innovative activities in Spain, representing nearly a quarter of all companies and spending on innovation in Spain. In contrast, spending on R&D by companies relative to GDP in Catalonia has been stable since 2010, reaching 0.84% in 2014, a figure that is higher than the Spanish average (0.65%).

According to a comparative analysis of innovation by regions in Europe published by the Regional Innovation Scoreboard2016, prepared by Eurostat, Catalonia ranks amongst 83 European regions as a 'Moderate Innovator'. Although the overall innovative performance of Catalonia has dropped in relation to the 2014 edition, Catalonia achieved a position that was above the European average on the indicators for the percentage of the population with higher education, employment in knowledge-intensive sectors and exports of medium and high technology content.

Barcelona has more than 12,500 technology companies, many created recently, with 50% of these not in existence five years before

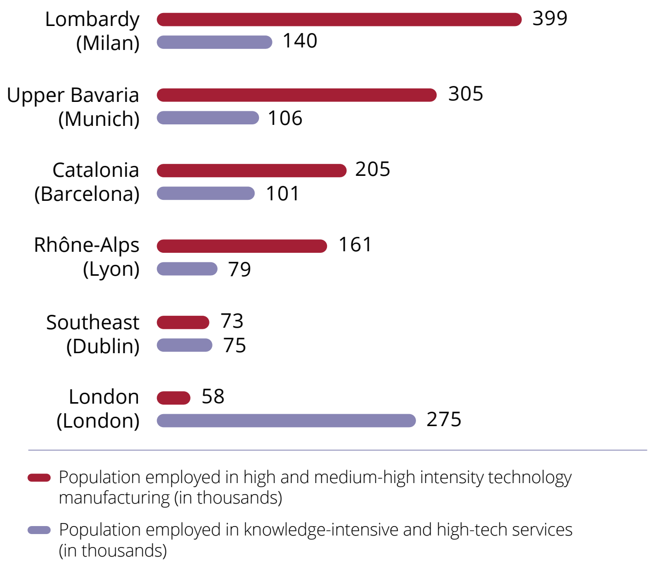
Population employed in technology manufacturing and technology services in European regions in 2015

Catalonia, fifth and ninth European region with most population engaged in technology manufacturing and technology services

According to Eurostat, in 2015, Catalonia ranked in 5th place among European regions with the highest population employed in high and medium-high intensity technology manufacturing with a total of 205,000 workers in these sectors. Despite losing a significant number of jobs in these activities during the first part of the recession, Catalonia stayed in 5th position –with a similar number of jobs to 2011– and only below Stuttgart, Lombardy, Upper Bavaria and Istanbul. Moreover, Catalonia shows a relative weight of 6.7% in terms of employment in sectors with high and medium-high intensity manufacturing technology, a percentage that places it in the mid range of 316 European regions.

Furthermore, Catalonia is the 9th top region in Europe in terms of employment in knowledge and high technology intensive services, with a total of 101,000 workers in 2015, which is 11% above the registered in 2008. Regarding the previous year, employment in these activities decreased by 3,000 workers (-2.9%), which means a fall of one position in the ranking, after being overtaken by Istanbul (increasing by 10.4%). As a result of this fall, the relative weight of employment in activities with high technology and knowledge-intensive services decreased slightly as a percentage of the total working population to stand at 3.3% (3.4% in 2014), which means it is located in the upper middle part of the European regions ranking. In terms of Social Security data, the weight of these activities compared to the total number of jobs in the city of Barcelona reached 6% in December 2015.

Population employed in knowledge-intensive and high-tech services and those employed in high-tech and medium-high intensity manufacturing technology. 2015



Source: Eurostat

Population employed in technology manufacturing and services in European regions. 2015

% employes in knowledge-intensive and high-tech services over all employees	Employees in knowledge-intensive and high-tech services (in thousands)	Region (CITY)	% Employees in high and medium-high intensity technology manufacturing over all employees	Employees in high and medium-high intensity technology manufacturing (thousands)
2.2	47	Stuttgart (STUTTGART)	19.5	412
3.3	140	Lombardy (MILANO)	9.4	399
4.4	106	Upper Bavaria (MUNICH)	12.6	305
2.0	106	Istanbul (ISTANBUL)	4.2	221
3.3	**101**	**Catalonia (BARCELONA)**	**6.7**	**205**
3.3	46	Karlsruhe (KARLSRUHE)	14.4	200
2.7	48	Piedmont (TURIN)	11.2	200
2.0	38	Emilia-Romagna (BOLOGNE)	9.9	188
2.2	52	Düsseldorf (DÜSSELDORF)	7.7	184
2.9	79	Rhône-Alpes (LYON)	5.9	161
3.5	72	Cologne (COLOGNE)	7.4	154
6.2	323	Ile de France (PARIS)	2.9	153
3.5	68	Darmstadt (FRANKFURT)	7.9	153
7.7	216	Madrid (Community) (MADRID)	3.3	93
4.9	133	Mazowsze (WARSAW)	3.3	90
5.2	70	Central Hungary (BUDAPEST)	6.5	87
2.4	36	Loire (NANTES)	4.9	75
5.1	75	South and East (DUBLIN)	5.0	73
2.4	32	Schleswig-Holstein (KIEL)	5.2	70
3.7	45	Midi-Pyrénées (TOULOUSE)	5.6	68
3.2	61	Provence-Alps-Côte d'Azur (MARSEILLE)	3.4	65
5.3	87	Berlin (BERLIN)	3.9	64
5.8	133	Lazio (ROME)	2.7	61
3.9	47	East Anglia (EAST ANGLIA)	4.8	58
6.4	275	London (LONDON)	1.4	58
5.2	63	Counties of Gloucester, Wiltshire and North Somerset	4.7	57
8.2	100	Counties of Berkshire, Buckingham and Oxford (OXFORD)	4.5	55
4.4	40	Hamburg (HAMBURG)	5.8	53
6.7	61	Capital Region (COPENHAGEN)	4.6	41

Source: Eurostat

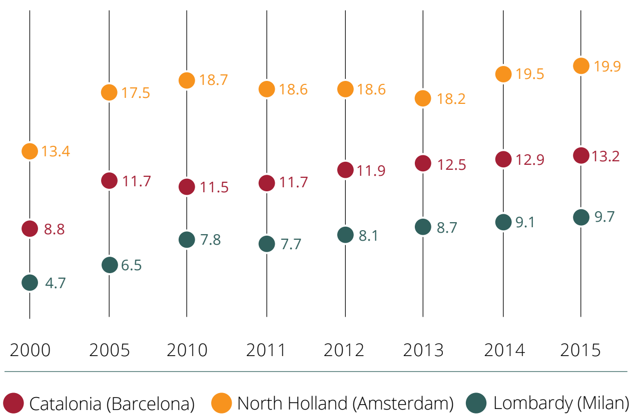
Population employed in science and technology in 2015 and expenditure on research and development in European regions in 2013

Catalonia has the seventh highest employment in science and technology amongst European regions

Catalonia had 731,000 people employed with higher education degrees dedicated to science and technology in 2015. This figure puts Catalonia in 7th place in the ranking of European regions, behind Paris, London, Madrid, Warsaw, Istanbul and Lyon, but above the regions of Lombardy, Upper Bavaria and Berlin, according to Eurostat. Despite an increase of 19,000 jobs compared to the previous year, Catalonia dropped two positions in the ranking, being overtaken by the regions of Lyon and Istanbul, whose growth were higher (2.7% compared to 11.9%, and 4.7%, respectively). Thus, in Catalonia, the weight of the working population dedicated to science and technology in relation to the total population stands at 13.2%, 4.4 percentage points higher than the results of 2000.

In 2013, research and development intensity (R&D) in Catalonia stood at 1.52% of GDP, a rate that is higher than regions such as London or Lombardy, while in contrast, Catalonia is still far from the leading regions like Copenhagen, Stockholm and Stuttgart, and it is below the European average (2%) and the target set in the European strategy for 2020 (set at 3%). For the same year, Catalan companies accounted for almost a quarter of the Spain's total domestic expenditure on R&D (24.3%).

People employed in science and technology
(as a percentage of the population aged between 15 and 74 years old)



Source: Eurostat

People employed in science and technology in 2015, and spending on research and development in the regions of Europe in 2013

Total R&D domestic expenditures (% GDP) in 2013	Domestic expenditures in the business sector on R+D (% GDP) in 2013	Region (CITY)	Employees in Science and Technology (in thousands) 2015	Employees in science and technology (% population*) 2015
2.91	1.99	Ile de France (PARIS)	1,665	19.1
0.98	0.34	London (LONDON)	1,542	24.2
1.77	1.00	Madrid (MADRID)	957	19.9
1.55	0.65	Mazowsze (Warsaw)	817	18.6
0.95	0.45	Istanbul (ISTANBUL)**	792	7.3
2.76	1.82	Rhône-Alpes (LYON)	742	16.0
1.52	**0.86**	**Catalonia (BARCELONA)**	**731**	**13.2**
1.30	0.91	Lombardy (MILAN)	726	9.7
4.41	3.35	Upper Bavaria (MUNICH)	656	18.9
1.06	0.39	Andalusia (SEVILLA)	559	8.8
2.46	1.50	Provence-Alpes-Côte d'Azur (MARSEELLE)	508	14.1
3.55	1.49	Berlin (BERLIN)	502	18.6
6.00	5.51	Stuttgart (STUTTGART)	494	16.2
2.92	1.13	Cologne (COLOGNE)	466	14.1
2.03	1.00	South Holland (ROTTERDAM)	465	17.4
3.12	2.48	Darmstadt (FRANKFURT)	460	15.6
1.67	1.24	Düsseldorf (DÜSSELDORF)	455	11.7
1.65	0.50	Lazio (ROME)	450	10.1
3.87	2.84	Stockholm (STOCKHOLM)	429	25.9
1.77	0.90	North Holland (AMSTERDAM)	418	19.9
1.77	1.26	Central Hungary (BUDAPEST)	412	18.1
0.95	0.45	Attica (ATHENS)	404	13.7
1.53	1.10	Southeast Ireland (DUBLIN)	400	16.1
0.62	0.32	Upper Silesia (KATOWICE)	399	12.1
3.49	2.14	Berkshire County and Buckingham County of Oxford (OXFORD)	398	23.5
1.04	0.42	Valencia (VALENCIA)	388	10.4
0.90	0.56	Southwest (BG) (SOFIA)	387	13.9
---	---	Ankara (ANKARA)	384	10.1
1.54	1.21	Surrey, East Sussex and West Sussex (BRIGHTON)	382	18.9
1.22	0.79	Loire (NANTES)	357	13.8

Note: workers who have a higher degree in science-related training and are employed as professionals or technicians. Domestic expenditure includes spending on capital and labour flows (both researchers and administrative staff) related to research activities in proportion to GDP.
* Population between 15 and 74 years old.

Source: Eurostat

Main cities in the world for academic scientific output in 2015

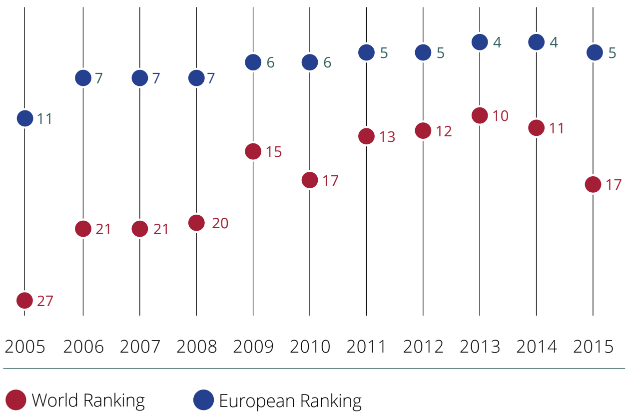
Barcelona came seventeenth among the world's cities and fifth in Europe

Barcelona, with 17,024 scientific publications, is placed 5th top European city and 17th in the world, according to the Knowledge Cities 2015 ranking, prepared by the UPC's Centre for Land Policy and Valuations. Despite Barcelona seeing its number of publications fall slightly in relation to 2014 (-0.1%), the city dropped one position in the European ranking and six at the world level due to a significant increase in publications by Moscow and the US cities of Baltimore, Chicago, Houston, Philadelphia and Cambridge. However, it was still above the volume of papers published in the cities of Los Angeles, Singapore, Sao Paulo and Oxford.

Meanwhile, of the 277 Advanced Grants awarded to researchers in 2015 by the European Research Council, six went to Catalan institutions representing 50% of the grants awarded to Spain. Similarly, Catalan institutions got a similar number of Advanced Grants to that of Finland (seven) and twice as many as Denmark (three).

Main cities in the world with regard to the publishing of scientific papers

(Positioning of Barcelona in the World and European rankings)



Source: analysis by the UPC's CPVS from SCI data *(Science Citation Index).*

Main cities in the world with regard to the publishing of academic scientific papers

World Ranking 2014	City	World Ranking 2015	European Ranking 2015	Papers 2015*
1	Beijing	1		71,322
2	London	2	1	42,304
3	Shanghai	3		35,385
5	New York	4		32,793
4	Seoul	5		32,637
7	Boston	6		32,010
6	Tokyo	7		30,347
8	Paris	8	2	30,252
9	Madrid	9	3	18,678
12	Baltimore	10		17,771
18	Moscow	11	4	17,506
14	Chicago	12		17,446
10	Toronto	13		17,369
17	Houston	14		17,144
13	Cambridge (USA)	15		17,076
16	Philadelphia	16		17,034
11	**Barcelona**	**17**	**5**	**17,024**
15	Los Angeles	18		16,911
19	Sao Paulo	19		15,955
20	Rome	20	6	15,927
21	Melbourne	21		15,470
22	Milan	22	7	14,573
23	Berlin	23	8	14,564
24	Singapore	24		14,223
26	Hong Kong	25		13,239
28	Cambridge (UK)	26	9	12,875
25	Montreal	27		12,855
27	Munich	28	10	12,341
29	Amsterdam	29	11	12,024
31	San Francisco	30		11,712
30	Oxford	31	12	11,537

*Data accessed on 26 May 2016
Source: http:*//www-cpsv.upc.es/KnowledgeCitiesRanking/*, Centre of Land Policy and Valuations - Polytechnic University of Catalonia

Patent applications in the principal OECD provinces in 2013

Patent applications in Barcelona have increased

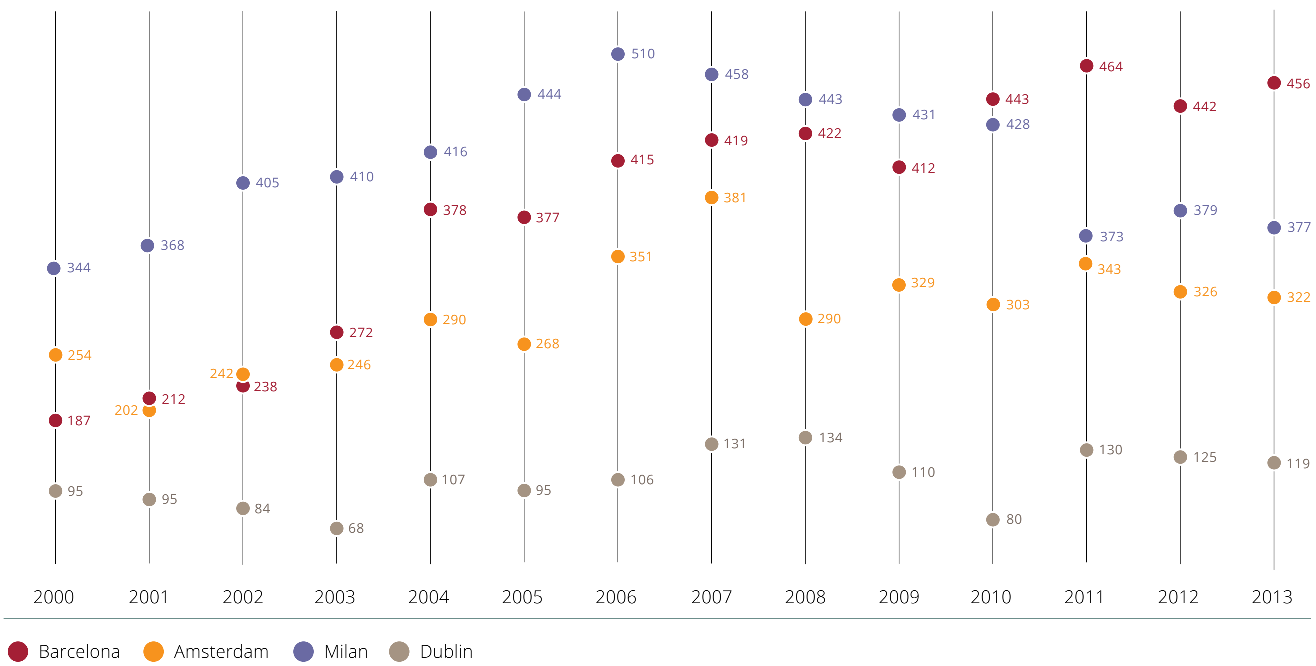
The Barcelona area registered a total of 456 international PCT patent applications during 2013, according to the residence of the individual inventor. This is the second highest number since 2000, only behind the 464 patents applied for in 2011. So Barcelona is maintaining an upward trend that began in 2009 and continues to outperform cities such as Lyon, Madrid, Milan, Amsterdam, Montreal, Toronto and Copenhagen. Similarly, if we look at the number of PCT patents applied for in relation to inhabitant numbers, Barcelona obtains a ratio of 83 applications per million inhabitants in 2013, three more than the previous year. It should be mentioned that this indicator measuring innovation per person, shows that the province of Barcelona is not so well positioned among the main areas of the OECD.

In terms of PCT technology patent applications in 2013, the figure stood at 126 for the Barcelona area -the highest in the data series, which is higher than other benchmark provinces like Milan, Amsterdam, Düsseldorf, Copenhagen and Lyon.

On the other hand, national patent applications decreased for the second year running in most of Spain's provinces in 2015, according to data from the Spanish Patent and Trademark Office (SPTO). However, Barcelona, with 379 requests (-5.3% compared to 2014) remains in 2nd position regarding Spanish national patent applications.

PCT Patents *

(Number of applications)



*Patent Cooperation Treaty

Source: OECD

Patent applications in the main provinces of the OECD. 2013

PCT technology patent applications	PCT technology patent applications per million inhabitants	Province (CITY)	Total PCT patent applications per million inhabitants	Total PCT patent applications
6,900	518.8	Tokyo (TOKYO)	1,064.1	14,152
5,248	516.5	Silicon Valley (SAN JOSE)	797.7	8,106
1,473	174.3	Boston (BOSTON)	494.9	4,183
2,478	249.7	Seoul (SEOUL)	407.9	4,049
1,252	53.0	New York (NEW YORK)	160.0	3,779
1,030	50.4	Los Angeles (LOS ANGELES)	141.4	2,886
680	92.7	Houston (HOUSTON)	368.6	2,705
830	93.8	Osaka (OSAKA)	283.3	2,507
1,625	330.2	Seattle (SEATTLE)	452.5	2,226
719	68.6	Chicago (CHICAGO)	212.4	2,226
595	217.9	Munich (MUNICH)	518.3	1,415
379	143.3	Stuttgart (STUTTGART)	534.6	1,415
745	350.4	Stockholm (STOCKHOLM)	581.9	1,238
373	44.3	London (LONDON)	94.1	792
399	254.4	Uusimaa (HELSINKI)	488.5	765
60	39.8	Düsseldorf (DÜSSELDORF)	452.2	683
192	84.5	Paris (PARIS)	277.2	630
194	54.7	Berlin (BERLIN)	170.2	603
126	**22.9**	**Barcelona (BARCELONA)**	**83.0**	**456**
84	27.3	Milan (MILAN)	122.6	377
62	4.4	Istanbul (ISTANBUL)	27.2	376
42	23.3	Rhone (LYON)	209.0	372
166	59.8	Toronto (TORONTO)	122.3	340
114	**17.8**	**Madrid (MADRID)**	**51.3**	**329**
80	29.5	Amsterdam (AMSTERDAM)	118.0	322
156	79.4	Montreal (MONTREAL)	152.1	299
123	62.0	Rhône (MARSEILLE)	120.2	238
64	36.9	Vienna (VIENNA)	123.9	216
54	75.7	Copenhagen (COPENHAGEN)	271.8	195
48	17.7	Manchester (MANCHESTER)	65.3	177
55	13.6	Rome (ROME)	41.9	169
43	68.2	Oslo (OSLO)	208.3	130
56	44.1	Dublin (DUBLIN)	94.1	119
23	**9.2**	**Valencia (VALENCIA)**	**41.7**	**106**
39	22.2	Budapest (BUDAPEST)	57.0	99

Source: OECD

European Digital City Index in 2016

Barcelona, among the ten most attractive European cities for digital entrepreneurship

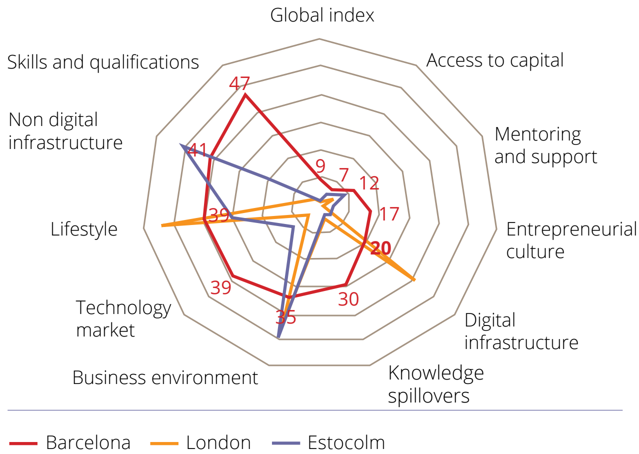
According to the second edition of the European Digital City Index 2016, Barcelona is the 9th top European city in terms of support for digital entrepreneurship among the 60 top cities on the continent (the EU28 capitals and 32 cities that are considered important digital entrepreneurship hubs). In a ranking headed by London, followed by Stockholm and Amsterdam, Barcelona climbed five places compared to the previous year to stand above cities like Vienna, Munich, and Milan. Barcelona got better scores because of its position on variables including access to capital, mentoring and assistance, entrepreneurial culture and digital infrastructure (7th, 12th, 17th, and 20th respectively) and worse on skills and lack of qualified labour force (47th). On other variables –like business environment, the technology market or knowledge spillovers– the city is located in the mid range between the 30th and 41st position.

In terms of the city of Barcelona, the report highlighted the presence of government-funded initiatives like Barcelona Activa, which helps new companies to finding funds to start their businesses, and the growing number of accelerator centres for emerging companies and Co-working events to facilitate knowledge exchange. But the previous edition also mentioned that, despite the existence of several venture capital firms and angel investors, these are insufficient to support the rapid growth of digital entrepreneurship in the city.

Barcelona has been considered one of the top ten cities for innovation in Europe, according to the *Ten Tech Hubs* report, prepared by Brussels-based consulting firm Business Science, which highlights the city's international reputation in areas like the early adoption of digital and wireless technologies, and biomedicine.

European Digital City Index. 2016

(Positioning of the city per variable)



Source: *European Digital City Index 2016.* Nesta and the European Digital Forum think tank

Note variables:

Access to capital: The ability to attract early and late stage capital and financing by business angels and crowdfunding.

Business environment: ease of doing business (time and associated cost required), average cost of office rentals or commercial property prices, availability of team working spaces, access to data.

Digital infrastructure: average upload and download speeds of Internet data, cost of fixed broadband subscriptions, mobile connection speeds, homes with fibre optics in the building.

Skills and qualifications: average salary of software or web developers, web designers, etc. with five years of experience, percentage of people between 25 and 64 years old with higher education, the number people working in the ICT sector, number of employees in the finance and insurance sector, and percentage of population that can communicate in English .

Entrepreneurial culture: openness to take on the risks involved with starting a business, percentage of foreign population, the number of people collaborating online, the number of new companies compared to 1,000 people of working age, trust between fellow citizens, people's perception of entrepreneurs, number of Tweets related to entrepreneurship and number 'unicorn' emerging companies valued in thousands of millions of dollars.

Knowledge spillovers: the number of research institutions in the top 200 best centres, and R&D expenditure per inhabitant.

Lifestyle: quality of life index (accessibility to housing, pollution, taxes, crime, quality of healthcare, etc.) and living costs (cost of various goods and services).

Technology market: percentage of people using Internet to buy or acquire goods or services for private use over the last year, percentage of profits from electronic commerce (discounting the financial sector), subscription rates for broadband per 100 inhabitants, difference in the percentage of people that have shopped online.

Mentoring and managerial support: number networking and mentoring events, number of mentors, number of accelerator centres (who advise companies and promote emerging companies in exchange for payment), number of business angels.

Non-digital Infrastructure: average time and commute distances, population that travel up to 3 hours a day by train, and the number of flights from local airports.

European Digital Cities Index

Ranking 2015	Global index	Ranking 2016	Global index
1	London	1	London
2	Amsterdam	2	Stockholm
3	Stockholm	3	Amsterdam
4	Helsinki	4	Helsinki
5	Copenhagen	5	Paris
6	Paris	6	Berlin
7	Berlin	7	Copenhagen
8	Dublin	8	Dublin
9	Brussels	**9**	**Barcelona**
10	Munich	10	Vienna
11	Cambridge	11	Munich
12	Madrid	12	Cambridge
13	Oxford	13	Bristol
14	**Barcelona**	14	Madrid
15	Vienna	15	Oxford
16	Valletta	16	Manchester
17	Lisbon	17	Brussels
18	Luxembourg	18	Tallinn
19	Prague	19	Edinburgh
20	Tallinn	20	Hamburg
21	Milan	21	Lyon
22	Budapest	22	Aarhus
23	Cologne	23	Birmingham
24	Warsaw	24	Lisbon
25	Bratislava	25	Frankfurt
26	Nicosia	26	Eindhoven
27	Ljubljana	27	Utrecht
28	Rome	28	Cologne
29	Vilnius	29	Malmo
30	Bucharest	30	Uppsala

Source: *European Digital City Index 2015 i 2016*. (Nesta and the European Digital Forum think tank).

Tourism

OBSERVATORI BARCELONA

Introduction

The consolidation of Barcelona as a benchmark international urban tourism destination has resulted in a rapid increase in tourist activity in the city in recent years, and this has led to public debate about the sustainability of this growth. As such, the City Council of Barcelona has given the go-ahead for the creation of a so-called Tourism and City Advisory Committee, a guidance body with different sector stakeholders, as well as the development of a new Strategic Tourism Plan for 2020, to define a roadmap for tourism management over the coming years. This plan proposes to improve tourism in terms of its sustainability, strengthening its positive impact on the city and managing its possible negative effects, facilitating the integration of visitors and fostering the necessary balance between people who live here and preserving local identity and coexistence.

In this context, the tourism sector continued to drive economic activity in the city of Barcelona during 2015. Thus, according to Turisme de Barcelona, the city's tourism board, Barcelona recorded almost 9 million tourists staying in city accommodation, which represented an increase of 6.4% over the previous year. The strong performance of the tourism sector is mainly due to foreign tourism and business tourism, supported by a recovery in domestic tourism.

The strong international tourism results of the city are reflected in the main rankings in this industry. Barcelona was positioned 8th top European city and 26th in the world in terms of number of international visitors, according to the report *Top Cities Destination Ranking 2014* carried out by Euromonitor International. According to the *European Cities Marketing Benchmarking Report 2016*, Barcelona is the 6th top European city in terms of having most overnights by international tourists, only behind London, Paris, Berlin, Rome and Madrid. Another relevant ranking is the MasterCard Index of Global Destination Cities for 2016, with Barcelona taking 12th worldwide and 4th in Europe in terms of number of international tourists (only beaten by London, Paris and Istanbul). Regarding international tourist spending, the city is 12th in the global ranking and 3rd in Europe. According to Tripadvisor, Barcelona is the 11th most popular destination worldwide in 2016.

These positive tourism results are boosted by strong results at the main access infrastructure routes into the city of Barcelona: the port and airport. The port of Barcelona remains a benchmark in the cruise industry, recording over 2.54 million cruise passengers –a rise of 7.4% compared to the previous year–, according to data from MedCruise.

Moreover, Barcelona-El Prat Airport remained among the top ten main airports in Europe in terms of passenger volumes in 2015. According to the *Airport Traffic Report*, by ACI Europe, Barcelona recorded a record 39,711,276 passengers last year, which is 2.15 million people more than the previous year (5.7%). In a decade (2005-2015), and despite the recession, Barcelona's airport has almost doubled the number of destinations it has long-haul direct flights with, which stands at 34 destinations. Next year it is going to add at least five new destinations, helping Barcelona towards its goal of becoming an international hub for flight connections. This increase in intercontinental flights has had an effect on demand: while 345,000 people took these types of direct flights in 2005, in 2015 the figure was 2,056,968, a six-fold increase, according to the Barcelona Air Routes Development Committee (CDRA).

The tourism sector remains one of the drivers of economic activity in the city of Barcelona

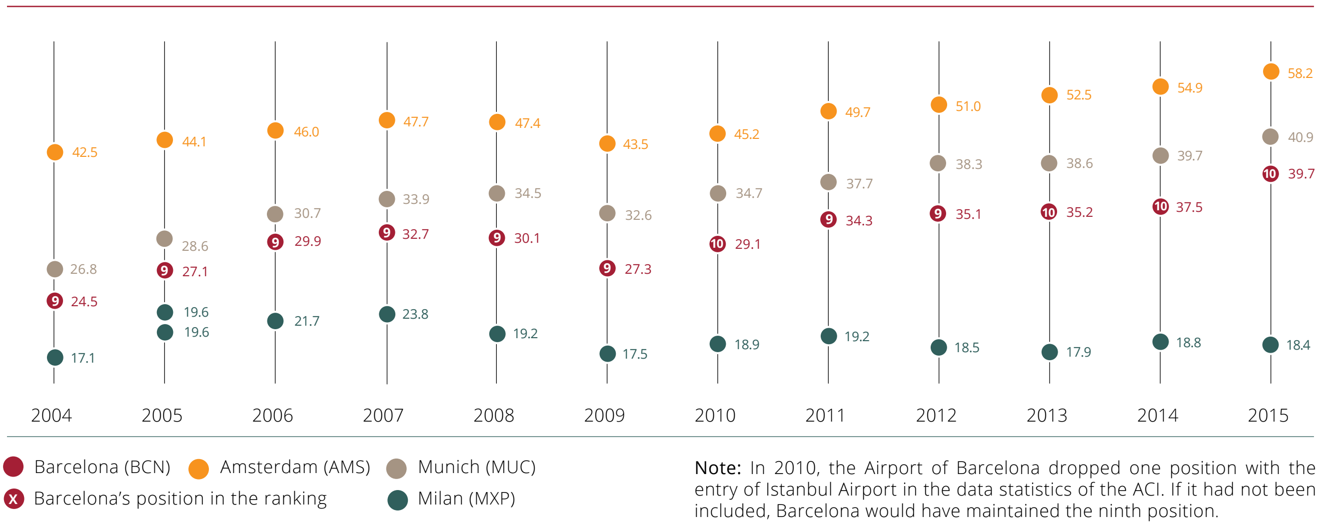
Top European airports in terms of passenger traffic in 2015

Barcelona airport is close to reaching 40 million passengers and remains among the top 10 main airports in Europe

During 2015, Barcelona-El Prat Airport reached a new passenger traffic record with 39.7 million people carried, representing an increase of 2.15 million passengers compared to the previous year (5.7%), according to data from *Airport Traffic Report*, by ACI Europe. For second consecutive year, Barcelona airport was in 10th spot in the European ranking, above airports like Domodedovo (Moscow), Orly (Paris) or Zurich.

The annual trend of passenger traffic was positive in almost all the 25 main airports in Europe, with the exception of Moscow-Domodedovo and Antalya (Turkey). The increase in passengers, however, has been a mixed one: with an increase of 0.1% at Moscow Airport to 19.6% at Istanbul-Sabiha Gökçen. Barcelona's passenger growth of 5.7% made it the 8th fastest growing airport last year. International traffic was the main driver of growth in Barcelona in 2015 with 29.1 million international passengers -an increase of 6.7% (compared to about 3% in terms of domestic traffic). Also, Barcelona-El Prat Airport was 19th in terms of having most international passengers, according to the ACI.

Passengers carried
(millions)



Note: In 2010, the Airport of Barcelona dropped one position with the entry of Istanbul Airport in the data statistics of the ACI. If it had not been included, Barcelona would have maintained the ninth position.

Source: Airport Traffic Reports. Airports Council International, ACI Europe, and the Barcelona Air Route Development Committee (CDRA).

Main European airports in terms of passengers. 2015

City (airport)	Variation 2015/2014 (%)	Passengers
London Heathrow (LHR)	2.2	74,958,031
Paris-Roissy (CDG)	3.1	65,766,986
Istanbul (IST)	8.2	61,322,729
Frankfurt (FRA)	2.5	61,032,022
Amsterdam (AMS)	6.0	58,285,118
Madrid (MAD)	11.9	46,828,279
Munich (MUC)	3.2	40,982,384
Rome-Fiumicino (FCO)	5.0	40,422,156
London-Gatwick (LGW)	5.7	40,275,430
Barcelona (BCN)	**5.7**	**39,711,276**
Moscow-Sheremetyevo (SVO)	0.1	31,611,061
Moscow Domodedovo (DME)	-7.7	30,504,505
Paris-Orly (ORY)	2.8	29,664,993
Istanbul-Sabiha Gökçen (SAW)	19.6	28,112,438
Antalya (AYT)	-2.2	27,724,249
Copenhagen (CPH)	3.8	26,610,332
Zurich (ZRH)	3.2	26,281,228
Dublin (DUB)	15.4	25,049,335
Oslo (OSL)	1.7	24,672,531
Palma de Mallorca (PMI)	2.7	23,745,131
Brussels (BRU)	7.0	23,460,018
Stockholm-Arlanda (ARN)	3.2	23,142,536
Manchester (MAN)	5.2	23,103,950
Vienna (VIE)	1.3	22,775,054
London-Stansted (STN)	12.9	22,515,500

Source: *Airport Traffic Report 2015*. Airports Council International and the Barcelona Air Route Development Committee (CDRA)

International tourists in cities around the world in 2014

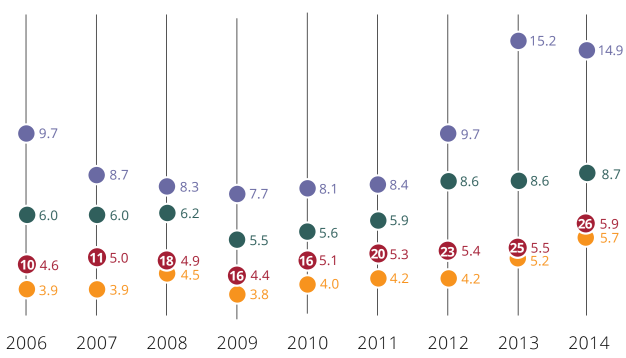
Barcelona is the 8th top international tourist destination in Europe and 26th the world

According to the *Top Destination Cities Ranking report 2014* by Euromonitor International, Barcelona ranks as the 8th top European destination and 26th in the world in terms of tourist arrivals out of a total of 100 international cities across the world. At the world level it dropped one position in the ranking compared the previous year, being overtaken by Tokyo. However, The number of international tourists who chose Barcelona as a tourist destination rose to almost 6 million in 2014 –a 4.8% increase over the previous year, which puts Barcelona ahead of Moscow, Beijing, Los Angeles at the global level; and Budapest, Venice, Vienna in terms of Europe. Likewise, in the European ranking Barcelona is placed behind London, Paris, Istanbul, Antalya, Rome, Prague and Milan for the second consecutive year.

Meanwhile, according to *European Cities Marketing Benchmarking Report 2016*, Barcelona was the 6th top European city with most overnight stays by foreign tourists in 2015, behind London, Paris, Berlin, Rome and Madrid. Also, according to The MasterCard Index of Global Destination Cities in 2015, Barcelona ranked 4th in Europe and 12th city in the world in terms of international visitors, and the 3rd in Europe and 6th in the world in terms of international tourism spending.

International tourists

(thousands)



Barcelona Amsterdam Paris Rome

X Barcelona's position in the world ranking

Note: As from 2008 there was a break in the data series because the number of cities analyzed was reduced from 150 to 100.

Source: *Top Cities Destination Ranquing.* Euromonitor International

International tourist cities in the world. 2014

City	Variation 2014/2013 (%)	International tourists (thousands)
Hong Kong	8.2	27,770.0
London	3.6	17,383.9
Singapore	-0.4	17,086.2
Bangkok	-7.0	16,245.0
Paris	-1.9	14,981.7
Macau	7.4	14,966.5
Dubai	8.4	13,200.0
Shenzhen	8.0	13,120.8
New York	3.2	12,230.0
Istanbul	13.2	11,871.2
Kuala Lumpur	4.0	11,629.6
Antalya	3.4	11,498.5
Seoul	8.9	9,389.6
Rome	2.0	8,780.5
Taipei	23.0	8,615.0
Guangzhou	6.7	8,199.0
Phuket	1.0	8,115.3
Miami	15.7	7,260.0
Pattaya	-8.0	6,427.3
Shanghai	4.2	6,398.8
Prage	2.2	6,346.1
Las Vegas	1.4	6,133.4
Mecca	6.2	6,120.6
Milan	3.0	6,050.1
Tokyo	28.8	5,993.3
Barcelona	**4.8**	**5,972.8**
Amsterdam	9,8	5,714.1
Viena	4,5	5,422.1
Los Angeles	2,3	5,272.6
Venice	1,5	5,237.0

Note: The arrivals include both those foreign visitors arriving in the city as a first point of entry, and those reaching the city through another entry point.
A visitor means a person who is in the city at least 24 hours and less than 12 months and staying in a private or group establishment.
Excluded are people on day trips (day trippers) and domestic tourists

Source: *Top Cities Destination Ranking 2014.* Euromonitor International

Cruise ships at Europe's main ports in 2015

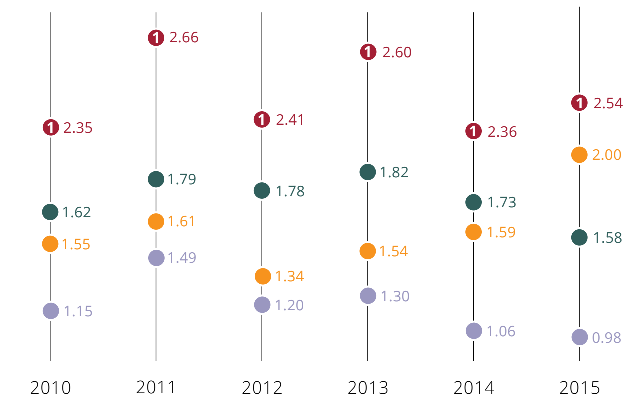
The port of Barcelona has consolidated its position as a benchmark Mediterranean port

The port of Barcelona's success is clearly evident with the city being the top port in the Mediterranean and Europe in terms of cruise traffic for the fifteenth consecutive year, according to statistics from MedCruise 2015. More than 2.5 million cruise passengers passed through the port of Barcelona in 2015 which represents an increase of 7.4% over the previous year, representing almost 30% of all cruise passengers in Spain. In the international context, Barcelona remained the 4th top port in the world in 2014, according to data from CLIA and Seatrade, just behind Florida's big three ports (Miami, Port Everglades and Port Canaveral) and in front of Venice, Southampton, and New York. Notably, more and more operators choose to work out of Barcelona's port. During 2015, more than half of cruise passengers were on turnaround cruises; meaning they start and finish their trips in the Catalan capital.

In 2014, the cruise industry in Barcelona generated a total turnover of nearly 800 million €, more than 6,700 jobs, contributing to 413.2 million € a year to the GDP of Catalonia, according to the findings of the report *Study of the impact on the Catalan economy and socio-economic profile of cruisers* (2014), produced by the University of Barcelona, Turisme de Barcelona and the Port of Barcelona.

Cruise passengers

(millions of people)



Barcelona · Piraeus (Athens) · Venice · Palma de Mallorca

X Barcelona's positioning in the Mediterranean ranking

Source: MedCruise and Spanish Ports

The main cruise ports in the Mediterranean

City	Variation 2015/2014 (%)	Travelling pasengers (thousands)
Barcelona	**7.4**	**2,540**
Civitavecchia	6.2	2,272
Balearic islands	25.8	1,997
Venice	-8.7	1,582
Marseille	10.7	1,451
Naples	14.0	1,270
Savona	-3.6	982
Piraeus	-7.1	980
Ports of Tenerife	11.1	933
Genoa	2.9	848
Dubrovnik/Korcula	-7.1	831
Kusadasi/Bodrum/Antalya	6.1	808
Livorno	11.4	698
La Valletta	29.1	668
La Spezia	38.0	667
Corfu	-3.7	647
Istanbul	0.0	589
Ports of Madeira	21.9	580
Palermo	2.9	547
Ports of the French Riviera	-8.3	546
Lisbon	2.2	512
Kotor	42.9	442
Malaga	2.4	419
Valencia	-0.5	371
Bari	-34.4	368
Gibraltar	14.7	344
Messina	2.5	328
Split	47.5	271
Cagliari	221.6	263
Monaco	29.6	259

Source: MedCruise Spanish Ports

Prices and costs

OBSERVATORI BARCELONA

Introduction

The historical period of moderate inflation –a widespread phenomenon in European countries– that started at the end of 2013 became more pronounced as 2015 progressed. This, together with weak Euro zone growth, prompted the ECB to implement various monetary stimulus measures to boost demand at an internal level. Given this context, Barcelona is a competitive city in terms of costs when we compare it with other cities around the world, as it has price and wage levels that are at the lower-mid range of the ranking of major European cities. However, the economic recovery that began in 2015 marked an upward trend in the rental prices of industrial land, offices and commercial premises, which breaks with the trend seen over the past years, but that does not substantially alter the city's position the rankings.

In 2015, Barcelona fell in the cost of living index ranking in relation to the reference city (New York), according to Mercer Human Resource Consulting. Zero inflation and wage moderation and the depreciation of the euro seen in 2015 were the main causes of this relative fall in the cost of living in the city of Barcelona.

It's worth noting that that in recent years, inflation in Barcelona's provincial area has been very low if non-existent (0.3% in 2014 and 0.0% annual average rates in 2015). Wages have also seen great stability on average in recent years. Between 2012 and 2015, gross wage costs decreased by an accumulated 2.4% in Catalonia to stand at 32,514 euro / year.

Compared to other European cities, the wage level in Barcelona is located in the lower-middle part of the ranking, only above cities like Lisbon, Athens, Prague or Budapest, but far lower than other similar cities like Dublin, Munich, Amsterdam and Milan. From a gender perspective, it is noteworthy that, according to a study on average salaries in Barcelona in 2014, employed women residents of Barcelona received a salary that was on average 25.1% less than men, while the wage gap between Catalonia and Spain was slightly higher than for the population of Barcelona (26.6% and 25.8% respectively) while at the European Union level the figure stood at 16.7%.

Regarding taxation, in 2015 there was a drop in the rate of corporation tax, which went from 30% to 28%, and in 2016 there was a second reduction down to 25%. This fall means Spain is approaching the average European corporation tax rate of around 22%. However, we should add that the nominal rates may differ quite a lot with the effective ones, which are those actually being applied once deductions and allowances are included, which in the case of Spain is lower than the nominal rate. The fall in corporation tax is in addition to a reduction in income tax, which has been introduced in steps between 2015 and 2016.

Finally, it is worth noting that Barcelona remains in a highly competitive position with regard to the rental prices of industrial land, offices and commercial buildings, which helps to attract businesses to Barcelona, both in terms of new companies setting up here and the maintenance of existing ones that are already here. However, rental prices began to increase in 2015 in the city of Barcelona, because of an improvement in the economic situation and appeal of the city.

Rental prices for businesses have risen due to the economic recovery and the city's growing appeal in the global markets

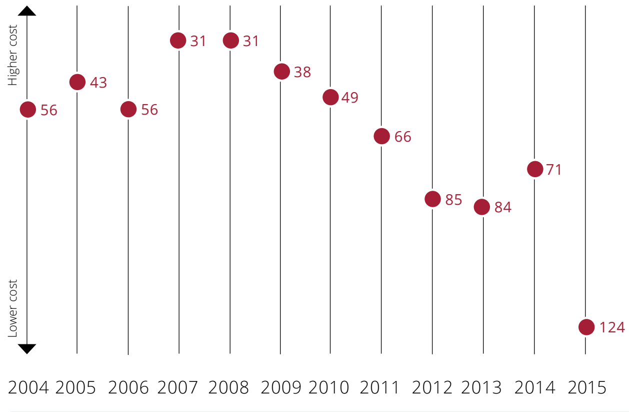
Cost of living in cities around the world in 2015

Barcelona drops in the ranking of cities with the highest costs of living

Barcelona fell significantly in the cost of living ranking of cities in the world, going from 71st position in 2014 to 124th in 2015, according to an annual survey by Mercer Human Resource Consulting, taken from an analysis of more than 200 basic products and services in 207 cities worldwide. In the last eight years, coinciding with the recession, Barcelona has experienced a sharp decline in its position in the ranking (from 31st in 2008 to 124th in 2015), which at the same time has enabled the city to gain in terms of competitiveness compared to foreign markets.

Other European cities such as Paris, Milan, Rome and Berlin have followed the same trend as Barcelona in 2015. The depreciation of the euro, which began in the second half of 2014 and continued during the whole of 2015, was the main cause of this decline in the cost of living ranking for European cities because the benchmark city in the ranking is New York. In the case of Barcelona, there was the additional issue of containment in consumption goods prices between 2014 and 2015 (with average annual inflation of 0.3% and 0.0% respectively). Overall, there has been a relative drop in the cost of life in Barcelona compared to world cities, although when compared to other European cities the situation remains quite similar.

Barcelona's position



Source: *Worldwide Cost of Living Survey, City Rankings 2015.* Mercer Human Resource Consulting

Cost of living in cities worldwide. 2015

Ranking 2014	City	Ranking 2015
1	Luanda	1
3	Hong Kong	2
5	Zurich	3
4	Singapore	4
6	Geneva	5
10	Shanghai	6
11	Beijing	7
14	Seoul	8
8	Bern	9
2	N'Djamena	10
7	Tokyo	11
12	London	12
20	Kinshasa	13
17	Shenzhen	14
24	Guangzhou	15
16	New York	16
13	Victoria	17
18	Tel Aviv	18
86	Buenos Aires	19
25	Lagos	20
54	Shenyang	21
34	Conakry	22
67	Dubai	23
15	Copenhagen	24
48	Qingdao	24
47	Nanjing	26
50	Tianjin	27
66	Yangon	28
71	Chengdu	29
19	Libreville	30
26	Sydney	31
23	Osaka	32
68	Abu Dhabi	33
46	Baku	33
36	Abuja	35
62	Los Angeles	36
74	San Francisco	37
20	Oslo	38
22	Noumea	39
49	Sao Paulo	40
61	Taipei	41
85	Chicago	42
28	Brazzaville	42
63	Beirut	44
88	Bangkok	45
27	Paris	46
33	Melbourne	47
37	Perth	48
51	Dublin	49
92	Washington DC	50
9	Moscow	50
71	**Barcelona**	**124**

Source: *Worldwide Cost of Living Survey, City Rankings 2015.* Mercer Human Resource Consulting

Corporation tax and VAT in countries around the world in 2016

The corporate tax rate is approaching the European rate average

Spain continues to be located in the upper middle part of the European ranking with regards to VAT rates, currently standing at 21%, but below countries like Greece (23%) and Italy (22%), and above Germany (19%) and France (20%). Regarding corporate tax, Spain reduced its rates in 2015 from 30% to 28% and again in 2016, the rates fell to 25%, meaning they are now approaching the EU average (22.1%). These tax rates falls are in addition to the income tax reductions, which have been implemented gradually in 2015 and 2016. According to KPMG, other EU countries like Spain have lowered their rates of corporation tax, but not as much as Denmark and Norway.

According to the study by PwC and the World Bank called *Paying Taxes* 2015, Spanish companies paid a total tax rate of 58.2% in 2015, higher than the average for European countries, but quite similar to the rates three years ago (58.6% in 2012). In terms of tax concepts considered, it is worth noting that most of this tax is paid on work (35.7%), followed by corporate tax (21.9%) and other taxes (0.6%)

Corporation tax and VAT in countries across the world. 2016

Country	Base rate VAT (%)	Country	Base rate Corporate Tax (%)
Hungary	27	United States	40.0
Denmark	25	Argentina	35.0
Norway	25	India	34.6
Sweden	25	Belgium	34.0
Finland	24	France	33.3
Greece	24	Japan	32.3
Ireland	23	Italy	31.4
Poland	23	Australia	30.0
Portugal	23	Germany	29.7
Slovenia	22	Luxembourg	29.2
Italy	22	Greece	29.0
Argentina	21	South Africa	28.0
Belgium	21	Canada	26.5
Spain	**21**	Austria	25.0
Latvia	21	**Spain**	**25.0**
Netherlands	21	Israel	25.0
Czech Republic	21	Norway	25.0
Austria	20	Netherlands	25.0
Slovakia	20	Tunisia	25.0
France	20	China	25.0
United Kingdom	20	South Korea	24.2
Germany	19	Denmark	22.0
Cyprus	19	Slovakia	22.0
Tunisia	18	Sweden	22.0
Israel	17	Portugal	21.0
Luxembourg	17	Finland	20.0
China	17	United Kingdom	20.0
India	15	Hungary	19.0
South Africa	14	Polòand	19.0
Australia	10	Czech Republic	19.0
South Korea	10	*Switzerland	17.9
Japan	8	Slovenia	17.0
Switzerland	8	Hong Kong	16.5
Canada	5	Latvia	15.0
United States	---	Ireland	12.5
Hong Kong	---	Cyprus	12.5

Note: The original database contains 138 countries, while the table lists a sample of selected reference countries
*Data for 2015

Source: *KPMG's Corporate and indirect Tax Rate tables.* KPMG

Corporation tax. 2016

(%)

Source: *KPMG's Corporate and indirect Tax Rate tables.* KPMG

Office rental prices in cities in Europe, the Middle East and Africa in 2015

Office rental prices are up for the first time in the last six years

The price per square metre of office rentals in Barcelona stood at €234 a year in 2015, according to the report EMEA Rents and Yields, prepared by CB Richard Ellis. Prices have increased almost 10% compared to a year ago, after remaining stable the previous year, and having decreased the four previous years to that. This trend means Barcelona has climbed five positions, moving from the 45th spot to 40th position in the ranking for office rental prices from a total of 58 selected cities in the area of Europe, Middle East and Africa. Despite the increases in price last year, Barcelona is still located in the lower-to-middle range of the selected sample, with prices similar to Prague and Copenhagen, but well below the reference cities like Dublin, Milan, Amsterdam and Lyon. In comparison, the city of Madrid is located in a higher position than Barcelona, with office rental prices of 312 € m^2 and growth last year of 5.1%.

The yield obtained from renting offices in Barcelona was 4.9% in 2015, according to CB Richard Ellis, very similar to cities like Amsterdam, Dublin and Madrid, among others.

Yields on offices in European cities. Q III 2015

Note: Yields refer to the return on investment in the office sector for each city

Source: *EMEA Rents and Yields Q3 2015* (Europe, Middle East & Africa). CB Richard Ellis

Rental prices for offices in cities in Europe, Middle East and Africa. 2015

Ranking	City	Annual var. (%)	Office rentals (€/m²/year)
1	London West End	9.3	1,784
2	London city	11.7	1,017
3	Geneva	0.0	825
4	Paris	0.0	800
5	Moscow	-26.7	788
6	Zurich	-3.0	767
7	Dubai	0.0	735
8	Dublin	16.7	565
9	Stockholm	13.3	552
10	Milan	2.1	490
11	Istanbul	0.0	484
12	Manchester	8.3	475
13	Frankfurt	4.0	474
14	Edinburgh	7.0	456
15	Oslo	0.0	446
16	Helsinki	8.8	444
17	Abu Dhabi	-2.7	439
18	Birmingham	5.3	438
19	Glasgow	3.5	431
20	Bristol	3.6	416
21	Munich	1.5	402
22	Rome	0.0	380
23	Amsterdam	1.5	350
24	St. Petersburg	-55.9	316
25	Düsseldorf	-1.9	312
25	Madrid	5.1	312
27	Vienna	0.0	309
28	Gothenburg	3.7	303
28	Hamburg	2.0	300
30	Warsaw	-5.6	288
30	Tel Aviv	0.0	288
32	Brussels	0.0	285
33	Lyon	7.7	280
34	Berlin	2.2	276
35	Marseille	-1.9	265
36	Athens	4.6	252
37	Kyiv	-14.8	247
38	Belfast	14.3	243
39	Budapest	0.0	240
40	Prague	0.0	234
40	**Barcelona**	**9.9**	**234**
42	Copenhagen	3.0	228
43	Rotterdam	0.0	225
44	Lisbon	0.0	222
44	Bucharest	2.8	222
46	Lille	0.0	220
47	The Hague	0.0	215
48	Utrecht	2.4	210
49	Vilnius	13.3	204
50	Bratislava	0.0	192
51	Belgrade	6.7	192
51	Tallinn	8.8	192
53	Aarhus	9.8	188
54	Riga	19.2	186
55	Zagreb	-1.8	168
56	Johannesburg	5.4	152
57	Oporto	0.0	144
58	Thessaloniki	4.8	120

Source: *EMEA Rents and Yields Q3 2015* (EMEA: Europe, Middle East & Africa). CB Richard Ellis

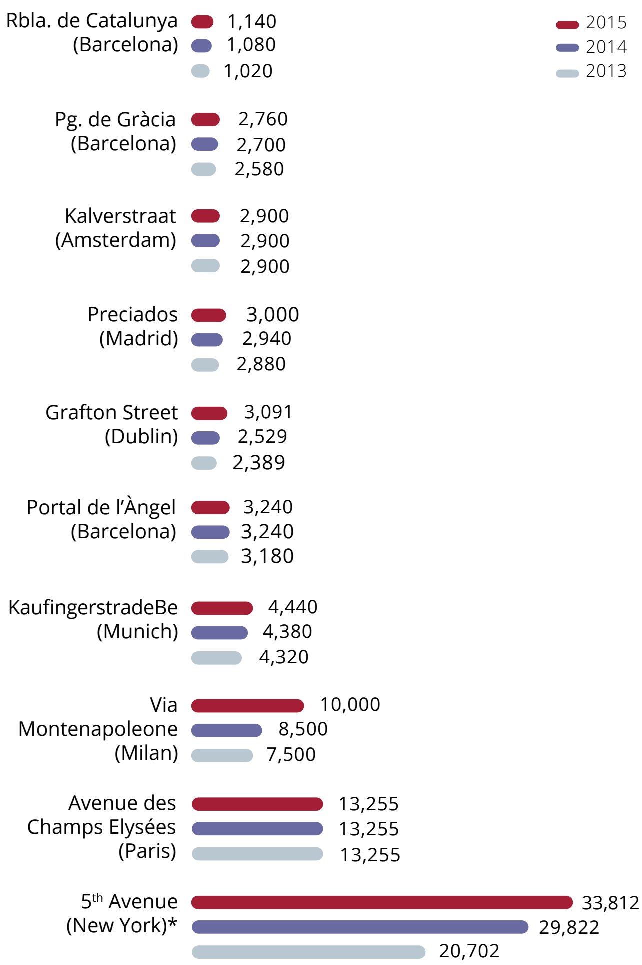
Retail rental prices in cities around the world in 2015

Prices rise in the city centre but remained stable in Portal de l'Angel

According to the study *Main Streets Across the World 2015/2016 by Cushman* & Wakefield, Portal de l'Angel is again the most expensive street in Spain, placed 15th in the world ranking, one spot lower than the previous year. Specifically, the rental price of retail premises in Portal de l'Angel was € 3,240 / m² / year, far from the € 33,812 /m²/year charged down Fifth Avenue, New York, which is the world's most expensive shopping street; or Avenue des Champs Elysees (€ 13,255 /m²/year), the most expensive street in Europe. Compared to the previous year, Portal Angel has maintained stable prices per m², while Passeig de Gràcia and Rambla de Catalunya have seen increases in rentals of 2.2% and 5.6% respectively.

In the Spanish ranking, Madrid's main shopping street called calle Preciados occupies 2nd position with a price of € 3,000 /m²/year; and the third most expensive is Passeig de Gràcia, which had an average price of € 2,760 /m²/year. Barcelona continues to occupy a high position in the world ranking of retail rental prices reflecting its global appeal and recent strong sales performance, especially purchases by foreign tourists

Rental prices for retail premises
(€/m²/year



(*) In 2014 and 2015 the reference is to Upper 5th Avenue, while previous years the reference was in general to the 5th Avenue. Therefore, the 2014 data and previous years are not comparable

Source: *Main Streets Across the World 2015-2016.* Cushman & Wakefield

Rental rates for retail premises in cities around the world. 2015

2014	2015	Country	City	Street	Rental shops (€/m²/year)
1	1	US	New York	Upper 5th Avenue (49th-60th Sts)	33,812
2	2	Hong Kong (China)	Hong Kong	Causeway Bay (main street shops)	23,178
3	3	France	Paris	Avenue des Champs Elysées	13,255
4	4	United Kingdom	London	New Bond Street	12,762
7	5	Italy	Milan	Via Montenapoleone	10,000
5	6	Australia	Sydney	Pitt Street Mall	8,898
9	7	Switzerland	Zurich	Bahnhofstrasse	8,643
6	8	Japan	Tokyo	Ginza	8,520
8	9	South Korea	Seoul	Myeongdong	8,519
10	10	Austria	Vienna	Kohlmarkt	4,620
12	11	Germany	Munich	Kaufinger/Neuhauser	4,440
13	12	China	Shanghai	West Nanjing Road	4,233
11	13	Russia	Moscow	Stoleshnikov	3,814
16	14	Singapore	Singapore	Orchard Road	3,253
14	**15**	**Spain**	**Barcelona**	**Portal de l'Àngel**	3,240
19	16	Ireland	Dublin	Grafton Street	3,091
18	17	Turkey	Istanbul	Bagdat Caddesi	3,016
17	18	Netherlands	Amsterdam	Kalverstraat	2,900
15	19	Norway	Oslo	Karl Johan	2,852
23	20	Taiwan	Taipei	ZhongXiao E. Road	2,640
20	21	Canada	Toronto	Bloor Street	2,515
21	22	Denmark	Copenhagen	Stroget (Vimmelskaftet inclós)	2,413
22	23	Czech Republic	Prague	Wenceslas Square	2,280
26	24	India	New Delhi	Khan Market	2,276
25	25	Greece	Athens	Ermou	2,160
27	26	Finland	Helsinki	City Centre	1,968
28	27	Belgium	Antwerp	Meir	1,750
30	28	New Zealand	Auckland	Queen Street	1,675
31	29	Luxembourg	Luxembourg	Grand Rue	1,620
24	30	Ukraine	Kiev	Kreschatik Street	1,616

Note: This ranking only includes the most expensive shopping street in each country

Source: *Main Streets Across the World 2015/2016*. Cushman & Wakefield

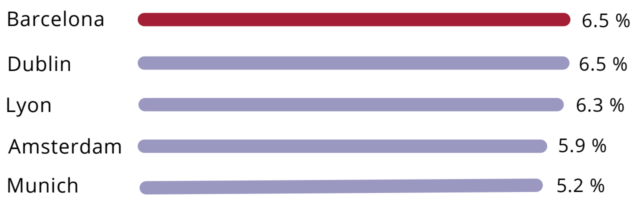
Industrial land rental prices in cities in Europe, the Middle East and Africa in 2015

Prices rise due to increased demand

The annual rental prices of industrial land in Barcelona was 75 euros per square meter in 2015, according EMEA Rents and Yields report, by CB Richard Ellis. For the first time in recent years, rental prices increased by 4.2% year-on-year, which explains why Barcelona has gone from 20th position in the ranking in 2014 to 14th in 2015 amongst a total of 50 selected cities in the area including Europe, Middle East and Africa, which is a similar price/m^2 for cities like Amsterdam and Rotterdam. This change is due to an improvement in industrial activity, which is also seen in most European cities analyzed, but the most significant rises were recorded in London, Dublin and Belgrade, while cities that experienced largest declines are located in Russia, Ukraine, Turkey and Greece, which is due to the difficult economic situation in these countries. It is worth noting that in Madrid the rental price of industrial land is quite a bit lower, standing at 60 €/m^2.

According to CB Richard Ellis, the yields on industrial land rentals in Barcelona reached 6.5% in 2015, identical to other European cities like Dublin and Vienna, but lower than the 7.5% recorded the previous year.

Yields on industrial land in European cities. Q III 2015



Nota: Yields refer to the return on investment of industrial land for each city

Source: *EMEA Rents and Yields Q3 2015* (Europe, Middle East & Africa)
CB Richard Ellis

Rental price of industrial land in cities in Europe, Middle East and Africa. 2015

Ranking	City	Annual var. (%)	Rentals on industrial land (€/m²/year)
1	Abu Dhabi	0.0	219.5
2	London	12.0	204.5
3	Geneva	0.0	183.4
4	Zurich	6.3	163.0
5	Helsinki	4.4	144.0
6	Oslo	0.0	136.9
7	Dubai	6.4	131.3
8	Glasgow	3.9	98.6
8	Stockholm	0.0	97.3
10	Edinburgh	8.3	95.0
11	Manchester	0.0	86.9
12	Istanbul	-3.2	80.6
13	Munich	0.0	78.0
14	**Barcelona**	**4.2**	**75.0**
14	Amsterdam	0.0	75.0
14	Rotterdam	0.0	75.0
17	Frankfurt	0.0	74.4
18	Gothenburg	-10.0	73.0
19	Dublin	11.5	72.5
20	The Hague	0.0	70.0
20	Utrecht	0.0	70.0
22	Hamburg	0.0	68.4
23	Düsseldorf	3.9	64.8
24	Moscow	-45.1	62.7
25	Zagreb	-5.7	60.0
25	Madrid	0.0	60.0
25	Paris	3.5	60.0
25	Belgrade	11.1	60.0
29	Vienna	1.0	58.2
30	St. Petersburg	-48.6	57.9
31	Tallinn	0.0	57.6
32	Copenhagen	0.0	57.0
33	Berlin	0.0	55.2
34	Johannesburg	0.0	55.0
35	Budapest	0.0	54.0
35	Vilnius	0.0	54.0
35	Riga	5.9	54.0
38	Prague	3.6	52.2
39	Rome	0.0	52.0
40	Milan	4.2	50.0
41	Kyiv	-20.4	48.4
42	Warsaw	0.0	48.0
43	Brussels	4.4	48.0
44	Bratislava	0.0	48.0
45	Lyon	2.2	46.0
46	Bucharest	0.0	45.6
47	Lille	0.0	44.0
48	Marseille	0.0	43.5
49	Lisbon	0.0	39.0
50	Athens	-7.7	36.0

Source: *EMEA Rents and Yields Q3 2015*. CB Richard Ellis

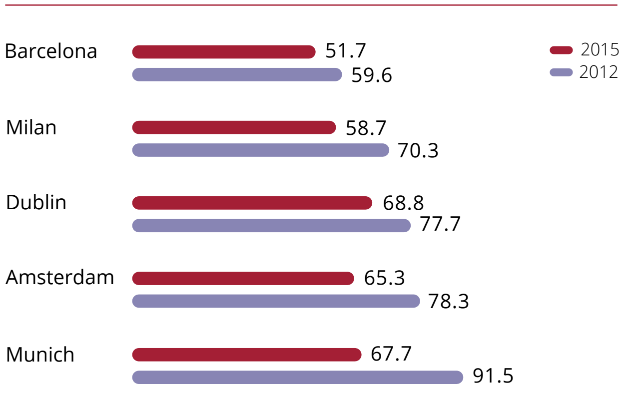
Wage levels in cities around the world in 2015

Barcelona falls in salary ranking

According to the report Prices & Earnings Around the Globe published by UBS, which analyzes trends in wage levels across 72 cities around the world between 2012 and 2015, the level of gross wages in Barcelona has decreased in relation to the reference city (New York). This trend is shared with the main European reference cities as a result of wage moderation and the depreciation of the euro. Barcelona fell in the world rankings, falling from 29th position in 2012 to 30th in 2015, and stays in the mid range compared to other European cities. It is below Dublin, Munich, Amsterdam, Milan and Lyon, among many others, but above cities such as Madrid, Lisbon, Prague or Budapest.

The fall in net salaries in the period analysed in Barcelona (ie, after taking away taxes and social security contributions) has been even more significant if you take into account the behaviour of gross salaries, which indicates there is a differential in income tax in Barcelona when compared to the reference city (New York).

Gross salary
(Index New York = 100)



Note: Effective wages per hour are based on a calculation for 14 professions. The net salary is calculated after taxes and social security contributions

Source: *Prices & Earnings around the Globe 2015.* UBS

Wage levels in cities worldwide. 2015

Ranking 2015	City	Net salary (New York=100)	Gross salary (New York= 100)
1	Zurich	141.8	131.3
2	Geneva	135.2	130.1
3	Luxembourg	97.1	106.4
4	New York	100.0	100.0
5	Miami	92.9	92.4
6	Copenhagen	56.8	92.2
7	Sydney	83.9	89.8
8	Oslo	80.4	87.7
9	Los Angeles	88.2	87.5
10	Chicago	84.5	85.2
11	Montreal	78.2	77.4
12	Stockholm	63.7	76.0
13	London	72.3	75.5
14	Brussels	61.1	72.8
15	Toronto	69.5	71.4
16	Tokyo	66.5	70.1
17	Auckland	68.6	70.0
18	Dublin	64.3	68.8
19	Vienna	69.7	68.5
20	Helsinki	62.8	67.8
21	Munich	68.2	67.7
22	Frankfurt	67.1	66.6
23	Amsterdam	53.3	65.3
24	Berlin	64.5	64.0
25	Paris	67.1	62.8
25	Rome	54.2	60.0
25	Nicosia	64.4	59.1
25	Milan	53.1	58.7
29	Lyon	62.8	58.6
30	**Barcelona**	**46.8**	**51.7**
31	Madrid	46.2	50.9
32	Hong Kong	51.3	49.4
33	Tel Aviv	47.3	46.5
34	Seoul	50.2	45.9
35	Manama	53.1	45.7
35	Dubai	46.9	40.4
35	Taipei	38.8	35.1
38	Sao Paulo	38.8	34.7
39	Ljubljana	32.7	33.6
40	Johannesburg	30.7	32.8
41	Doha	37.4	32.2
42	Lisbon	32.0	31.9
43	Athens	28.2	29.8
44	Bratislava	27.6	28.4
45	Rio de Janeiro	30.3	26.8
46	Istanbul	26.0	26.5
47	Tallinn	24.2	26.1
48	Warsaw	22.4	23.2
49	Santiago de Chile	25.1	23.1
50	Buenos Aires	26.3	22.6

Note: The effective wage per hour is calculated from 14 professions. The net salary is calculated after taxes and Social Security contributions

Source: *Prices & Earnings around the Globe 2015.* UBS

SUMMARY OF RESULTS

Summary of results

In 2015, the economies of Catalonia and Barcelona advanced in terms of the labour market recovery that started in 2013, driven by a recovery in domestic demand, especially family consumption and private investment, and strong exports performance, which was supported by external factors like the depreciation of the euro, low oil prices and ECB expansionary monetary policy. The forecast for 2016 points to annual growth of more than 3%, despite growing international instability after Brexit and these financial risks could translate into a certain slowdown. In this environment, Barcelona has managed to maintain its strong economic and business position in the international and European contexts on most of the indicators included in the 2016 Report by the Barcelona Observatory, even improving on some of these positions.

The Catalan economy's positive trend is confirmed by the results of the Survey on Business Outlook for 2016 by Eurochambres, which shows an improvement compared to the previous year. In parallel to this positive outlook, other indicators also re-affirm Barcelona's appeal as a **centre for business activity** and the good image that the city has abroad. In this area, the city improved its overall position regarding global competitiveness, jumping six positions to stand at 20th in the ranking in the world, according to the Global Power City Index 2016 published by the Mori Memorial Foundation; and it is positioned 14th in the world ranking in terms of being a reputable city, according to the City RepTrak 2016, albeit falling positions compared to the previous year. Barcelona also generates confidence when it comes to international investment, as shown by the fact that it occupies the 8th position among the main urban areas in the world attracting foreign investment projects during the period 2012-2016, according to KPMG. On the other hand, the city is among the top five in the world in terms of number of delegates and the number of international conferences organized in the period 2012-2015, according to the ICCA. Barcelona is also known for its entrepreneurial spirit and the business opportunities it offers, with a rate of entrepreneurial activity (TEA) which stands at 6.1% for the province of Barcelona in 2015, a rate that is above those of Germany, Norway and Italy, but below the European Union average (7.6%).

The report's chapter on **quality of life, social cohesion and sustainability** has been renewed this year with the addition of new indicators on social cohesion analysing two issues -inequalities and the risk of poverty and social exclusion- that are now centre stage in today's political and social debate. Regarding variables associated with a good quality of life, Barcelona is considered the 15th safest city in the world, according to The Safe Cities Index 2015, and 3rd in the field of sports, according to the Sports Cities Ranking for 2015. In terms of sustainability, Barcelona is also one of the cities with best results on dimensions related to environmental issues, according to the Sustainable Cities Index 2016, and it produces a relatively low volume of CO_2 equivalent per inhabitant compared to other cities worldwide. The indicators that refer to social cohesion have developed unfavourably since the recession, although the Gini coefficient in Catalonia shows a very similar rate to the average for the OECD, while the rate of risk of poverty or social exclusion remains lower than the European Union indicator.

Regarding the **labour market** as a whole, it is worth mentioning that since 2014 there has been an improvement in line with economic recovery, although the employment rate in Catalonia is still below the European average for seventh consecutive year. In this context, in 2015, Barcelona created net jobs for second consecutive year, after six years of labour market adjustments, recording a significant annual decline in the unemployed population, although unemployment is still well above the European average.

In the field of **higher education** Barcelona is a leader in business education, being the only European city with two educational institutions (IESE and ESADE) among the top ten business schools in Europe, according to The Financial Times and The Economist Intelligence Unit. Barcelona is also known for its skilled human capital. The percentage of workers with university degrees is well above the EU average (44.6% and 35% respectively) and in the case of working women this figure is above 50% for the first time, according to Eurostat data for 2015.

In the field of **knowledge and technology**, Barcelona remains well positioned at the European level, developing itself as a benchmark city in technology entrepreneurship. According to the European Digital City Index 2016, Barcelona is the 9th best European city in terms of offering support for digital entrepreneurship amongst Europe's 60 principal cities. The city's commitment to boosting research has allowed Barcelona to position itself as the 5th top city in Europe and 17th in the world in terms of publishing and producing scientific papers, according to an annual report prepared by the University Polytechnic of Catalonia, although –while maintaining the number of papers published at the 2014 level– the city dropped six positions in the world ranking. Importantly, the city developed a critical mass in terms of employment in sectors with high added value in 2015: Catalonia was the 5th top European region with the largest number of people employed in high and medium-high technology intensity manufacturing and 7th in terms of the number of working population in science and technology and 9th in terms of population employed in knowledge and technology services. In terms of innovation, the results of the latest data available for the year 2013 show an increase in the number of total PCT applications for patents and technology in the Barcelona area.

The **tourism** sector continues to be one of the drivers of the city's economic activity. On the back of favourable past performance, Barcelona enjoys a strong position as a leading city tourist destination, both in Europe and internationally. Thus, in 2015, Barcelona recorded a record number of tourists staying at city accommodation, approaching 9 million people, which is an increase of 6.4% over the previous year, according to Turisme de Barcelona. Barcelona's strong position as an international tourism destination is reflected in the report Top Destination Cities Ranking 2014, where Barcelona is positioned as the 8th city in Europe and 26th in the world in terms of number of international visitors. Also, according to the European Cities Marketing Benchmarking Report 2016, Barcelona is the 6th top European city with most overnights by international tourists, only behind London, Paris, Berlin, Rome and Madrid. This strong tourism performance is enhanced by the city's excellent positioning in terms of the quality of its transport infrastructure. Firstly, in 2015, the port of Barcelona was –for the fifteenth consecutive year– the top port for cruises in Europe, with 2.54 million cruise passengers, 7.4% more than the previous year, according to data from MedCruise. On the other hand, Barcelona Airport was again in the top ten airports in Europe in terms of passenger volumes in 2015, reaching a record 39.7 million passengers (5.7% more than the previous year), according to the Airport Traffic Report, by ACI Europe.

Barcelona remains competitive in terms of **prices and costs** at the world level, given the fact that its wage and price levels are at the low-to-mid range of the ranking of all major European cities. However, the economic recovery that started in 2015 created an upward trend in the rental prices of industrial land, offices and retail premises, which bucks recent trends, but that does not substantially alter the city's position in the rankings. This reflects an improvement in the economic situation of the city and its growing appeal to global markets. In terms of costs of living, Barcelona dropped positions in the cost of living index ranking in relation to the reference city (New York) in 2015, according to Mercer Human Resource Consulting. This trend is in part due to factors including zero inflation, wage moderation and the depreciation of the Euro, and this means that in comparison with other European cities, the wage level in Barcelona is located in the lower-middle part of the ranking. As regards taxation, there has been a decline in the rate of corporation tax to 25% in 2016, meaning Spain is close to the European average. This reduction is accompanied with a reduction in income tax rates that have been phased in between 2015 and 2016.

For sixth consecutive year the Barcelona Observatory is publishing its special report titled the ***Business climate in the Metropolitan Area of Barcelona (AMB)***, which analyzes the business trends of 2015 and progress during the first three quarters of 2016, offering a forecast for the fourth quarter. This analysis highlights the consolidation of the economic recovery during 2015 and 2016, and presents the best results from the Survey on the business climate in the AMB since 2009. The business situation and performance in the AMB was positive in the first three quarters of 2016, keeping up the growth rate achieved in 2015. Looking to the fourth quarter of 2016, business people in the AMB forecast that business performance will remain positive, especially in the retail sector, in line with the previous year.

Summary of results

	Global competitiveness 2016	Best reputation 2016	Foreign investment projects 2012-2016	Entrepreneurial activity rate[1,3] 2015	Business outlook, exports[1,3] 2016	Organisation of international congresses 2015	Safe cities 2015	Sports cities 2015	Gini coefficient[1,2,4] 2013	At risk of poverty or social exclusion rate[1,2,4] 2015
1	London	Sydney	London	Brazil	Portugal	Berlin	Tokyo	London	Helsinki	Prague
2	New York	Vienna	Shanghai	Argentina	Spain	Paris	Singapore	Lausanne	Bratislava	Helsinki
3	Tokyo	Zurich	Hong Kong	Canada	Romania	**Barcelona**	Osaka	**Barcelona**	Copenhagen	Stockholm
4	Paris	Toronto	São Paulo	Estonia	Belgium	Vienna	Stockholm	Rio de Janeiro	Budapest	Oslo
5	Singapore	Stockholm	New York	China	Slovenia	London	Amsterdam	Tokyo	Berlin	Bratislava
6	Seoul	Edinburgh	Paris	United States	Croatia	Madrid	Sydney	Beijing	Lyon	Ljubljana
7	Hong Kong	Montreal	Sydney	Slovakia	**Barcelona**	Singapore	Zurich	Edmonton	Munich	Amsterdam
8	Amsterdam	Rome	**Barcelona**	Ireland	Estonia	Istanbul	Toronto	Sydney	Oslo	Milan
9	Berlin	Vancouver	Beijing	Poland	Bulgaria	Lisbon	Melbourne	Paris	Tokyo	Copenhagen
10	Vienna	Copenhagen	Dublin	Hungary	Turkey	Copenhagen	New York	Los Angeles	Milan	Bern
11	Frankfurt	Helsinki		EU average	Lithuania	Prague	Hong Kong	Melbourne	Stockholm	**Barcelona**
12	Shanghai	Venice		Switzerland	Austria	Amsterdam	San Francisco	Copenhagen	Warsaw	Madrid
13	Los Angeles	Melbourne		Netherlands	Serbia	Brussels	Taipei	Vancouver	**Barcelona**	Bucharest
14	...	**Barcelona**		---	Cyprus	Seoul	Montreal	Glasgow	Toronto & Ottawa	Warsaw
15	**20 Barcelona**	Madrid		**Barcelona**	Slovakia	Hong Kong	**Barcelona**	Toronto	Vienna	Budapest

¹ Ranking refers to a selected sample ² The ranking refers to regions or provinces ³ The ranking refers to countries ⁴ Ranking goes from low to high values

Sustainable cities	CO_2 emissions equivalent per capita[1,3,4]	Employment rate[1,2]	Unemployment rate[1,2,4]	Workers with tertiary education[1,2]	Business schools	Employeees in high-tech industries[2]	Employees in science and technology[2]	Scientific production	PCT patent applications[1,2]	
2016	2016	2015	2015	2015	2016	2015	2015	2015	2013	
Zurich	Recife	Munich	Munich	London	Fontainebleau Insead	Stuttgart	Paris	Beijing	Tokyo	1
Stockholm	Addis Abeba	Stockholm	Prague	Oslo	Londres Londres Business School	Milano	London	London	San José	2
Geneva	Lagos	Stuttgart	Stuttgart	Bilbao	Cambridge University of Cambridge: Judge	Munich	Madrid	Shanghai	Boston	3
Vienna	Lima	Oslo	Frankfurt	Helsinki	Madrid IE Business School	Istanbul	Warsaw	New York	Seoul	4
Frankfurt	Oslo	Amsterdam	Oslo	Edinburgh	Lausanne IMD	**Barcelona**	Istanbul	Seoul	New York	5
Wellington	**Barcelona**	Copenhagen	Budapest	Brussels	Paris HEC Paris	Karlsruhe	Lyon	Boston	Los Angeles	6
Rome	Paris	Prague	Edinburgh	Madrid	**Barcelona** **Iese Business School**	Turin	**Barcelona**	Tokyo	Houston	7
Sydney	Quito	Frankfurt	Amsterdam	Copenhagen	**Barcelona** **Esade Business School**	Bologne	Milan	Paris	Osaka	8
London	Mexico City	Edinburgh	London	Stockholm	Milan SDA Bocconi	Düsseldorf	Munich	Madrid	Seattle	9
Hamburg	Rio de Janeiro	Helsinki	Warsaw	Paris	Oxford University of Oxford: Saïd	Lyon	Seville	Baltimore	Chicago	10
Madrid	Madrid	Rotterdam	Manchester	Dublin	London Imperial College Business School	Cologne	Marseille	Moscow	Munich	11
Singapore	Vancouver	London	Copenhagen	Glasgow	Lancaster Lancaster University	Paris	Berlin	Chicago	Stuttgart	12
Copenhagen	Seoul	Manchester	Stockholm	Amsterdam	London City University Cass	Frankfurt	Stuttgart	Toronto	Stockholm	13
---	London	...	...	...	Manchester Alliance Business School	Madrid	Cologne	...	...	14
23 Barcelona	Wellington	**25 Barcelona**	**29 Barcelona**	**16 Barcelona**	Lisbon The Lisbon MBA	Warsaw	Rotterdam	**17 Barcelona**	**19 Barcelona**	15

[1] Ranking refers to a selected sample [2] The ranking refers to regions or provinces [3] The ranking refers to countries [4] Ranking goes from low to high values

	Digital cities 2016	Airport passengers 2015	International tourists 2014	Cruise passengers in Europe 2015	Cost of living 2015	Corporation tax[1,3] 2016	Office rental prices 2015	Rentals on retail premises 2015	Industrial land rental prices 2015	Salary levels 2015
1	London	Londres Heathrow (LHR)	Hong Kong	**Barcelona**	Luanda	United States	London-West End	New York Upper 5th Avenue	Abu Dhabi	Zurich
2	Stockholm	Paris-Roissy (CDG)	London	Civitavecchia	Hong Kong	Argentina	City of London	Hong Kong Causeway Bay	London	Geneva
3	Amsterdam	Istanbul (IST)	Singapore	Balearic islands	Zurich	India	Geneva	Paris Avenue des Champs-Élysées	Geneva	Luxembourg
4	Helsinki	Frankfurt (FRA)	Bangkok	Venice	Singapore	Belgium	Paris	London New Bond Street	Zurich	New York
5	Paris	Amsterdam (AMS)	Paris	Marseille	Geneva	France	Moscow	Milan Via Montenapoleone	Helsinki	Miami
6	Berlin	Madrid (MAD)	Macau	Naples	Shanghai	Japan	Zurich	Sydney-Pitt Street Mall	Oslo	Copenhagen
7	Copenhagen	Munich (MUC)	Dubai	Savona	Beijing	Italy	Dubai	Zurich Bahnhofstrasse	Dubai	Sydney
8	Dublin	Rome-Fiumicino (FCO)	Shenzhen	Piraeus	Seoul	Australia	Dublin	Tokyo Ginza	Glasgow	Oslo
9	**Barcelona**	London-Gatwick (LGW)	New York	Ports of Tenerife	Bern	Germany	Stockholm	Seoul Myeongdong	Stockholm	Los Angeles
10	Vienna	**Barcelona** **(BCN)**	Istanbul	Genoa	N'Djamena	Luxemoburg	Milan	Vienna Kohlmarkt	Edinburgh	Chicago
11	Munich	Moscow Sheremetyevo (SVO)	Kuala Lumpur	Dubrovnik/Korcula	Tokyo	Greece	Istanbul	Munich Kaufingerstraße	Manchester	Montreal
12	Cambridge	Moscou Domodedovo (DME)	Antalya	Kusadasi	London	South-Africa	Manchester	Shangai West Nanjing Road	Istanbul	Stockholm
13	Bristol	Paris-Orly (ORY)	Seoul	Livorno	Kinshasa	Canada	Frankfurt	Moscow Stoleshnikov	Munich	London
14	Madrid	Istanbul (SAW)	...	La Valletta	...	Austria	...	Singapore Orchard Road	**Barcelona**	...
15	Oxford	Antalya (AYT)	**26 Barcelona**	La Spezia	**124 Barcelona**	**Barcelona**	**40 Barcelona**	**Barcelona** **Portal de l'Àngel**	Amsterdam	**30 Barcelona**

[1] Ranking refers to a selected sample [2] The ranking refers to regions or provinces [3] The ranking refers to countries [4] Ranking goes from low to high values

Barcelona's position in international rankings

Global competitiveness. 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	20
London	New York	Tokyo	Paris	Singapore	Seoul	Hong Kong	Amsterdam	Berlin	Viena	Frankfurt	Shangai	Los Angeles	...	**Barcelona**

Best reputation. 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sydney	Vienna	Zurich	Toronto	Stockholm	Edinburgh	Montreal	Rome	Vancouver	Copenhagen	Helsinki	Venice	Melbourne	**Barcelona**	Madrid

Foreign investment projects. 2012-2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
London	Shangai	Hong Kong	Sao Paulo	New York	Paris	Sydney	**Barcelona**	Beijing	Dublin					

Safe cities. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tokyo	Singapotre	Osaka	Stockholm	Amsterdam	Sydney	Zurich	Toronto	Melbourne	New York	Hong Kong	San Francisco	Taipei	Montreal	**Barcelona**

Sustainable cities. 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	23
Zurich	Stockholm	Geneva	Venice	Frankfurt	Wellington	Rome	Sydney	London	Hamburg	Madrid	Singapore	Copenhagen	...	**Barcelona**

European business schools. 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Fontainebleau Insead	London London Business School	Cambridge University of Cambridge: Judge	Madrid IE Business School	Lausanne IMD	Paris HEC Paris	**Barcelona** IESE Business School	**Barcelona** Esade School	Milan SDA Bocconi	Oxford University of Oxford: Saïd	London Imperial College Business School	Lancaster Lancaster University	London University Cass	Manchester Alliance Business School	Lisbon The Lisbon MBA

Scientific production. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	17
Beijing	London	Shangai	New York	Seoul	Boston	Tokyo	Paris	Madrid	Baltimore	Moscow	Chicago	Toronto	...	**Barcelona**

Digital cities in Europe. 2016

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
London	Stockholm	Amsterdam	Helsinki	Paris	Berlin	Copenhagen	Dublin	**Barcelona**	Vienna	Munich	Cambridge	Bristol	Madrid	Oxford

European airports in terms of number of passengers. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
London Heathrow (LHR)	Paris Roissy (CDG)	Istanbul (IST)	Frankfurt (FRA)	Amsterdam (AMS)	Madrid (MAD)	Munich (MUC)	Rome Fiumicino (FCO)	London Gatwick (LGW)	**Barcelona** (BCN)	Moscow Sheremetyevo (SVO)	Moscow Domodedovo (DME)	Paris Orly (ORY)	Istanbul (SAW)	Antalya (AYT)

Cruise passengers in the Mediterranean. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Barcelona	Civitavecchia	Balearic islands	Venice	Marseille	Naples	Savona	Piraeus	Ports of Tenerife	Genoa	Dubrovnik Korčula	Kusadasi Bodrum Antalya	Livorno	La Valletta	La Spezia

Cost of living. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	124
Luanda	Hong Kong	Zurich	Singapore	Geneva	Shangai	Beijing	Seoul	Bern	N'Djamena	Tokyo	London	Kinshasa	...	**Barcelona**

Rentals on retail premises. 2015

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
New York Upper 5th Avenue	Hong Kong Causeway Bay	Paris Avenue des Champs-Élysées	London New Bond Street	Milan Via Montenapoleone	Sydney Pitt Street Mail	Zurich Bahnhofstrasse	Tokyo Ginza	Seoul Myeongdong	Vienna Kohlmarkt	Munich Kaufingerstraße	Shangai West Nanjing Road	Moscow Stoleshnikov	Singapore Orchard Road	**Barcelona** Portal de l'Àngel

SPECIAL REPORT

Business Climate in the Metropolitan Area of Barcelona

Situation in 2015 and outlook for 2016

observatori barcelona

Executive summary

Best results since 2009

The Survey on the business climate in the AMB for 2015 recorded its best results since 2009 (start of the data series), in line with an improving economic situation:

- The business performance is positive after years of negative results
- The falls in sales prices are more moderate
- Employment increased for first time since 2009
- Investment in the AMB is positive for the second consecutive year

Strong results across all sectors analyzed

- The annual averages of business performance, employment and investment are already positive for all sectors, with the exception of the construction sector, which recorded positive values in the fourth quarter
- The hospitality sector stands out because it shows the most positive trend for all variables analyzed (business performance, prices, employment and investment)
- The building sector, despite being the only sector still showing a slightly negative balance, recorded most improvement together with the hospitality sector

Factors that limit business performance

In terms of the factors that limited business performance in 2015:

- Weak demand continues to be the factor most mentioned by companies; nevertheless, it is becoming less relevant for the third consecutive year
- Conversely, increased competition, which was the second factor most mentioned, gained in relevance and was almost mentioned as much as weak demand
- The third factor was financing difficulties, which was mentioned less compared to other factors, but was still relevant from a historical perspective

Positive outlook

- The first three quarters of 2016 recorded positive overall business performance and last year's growth is being maintained.
- The outlook for business performance for the fourth quarter of 2016 is positive and stable compared to a year ago.

Situation and trends in the business climate in 2015

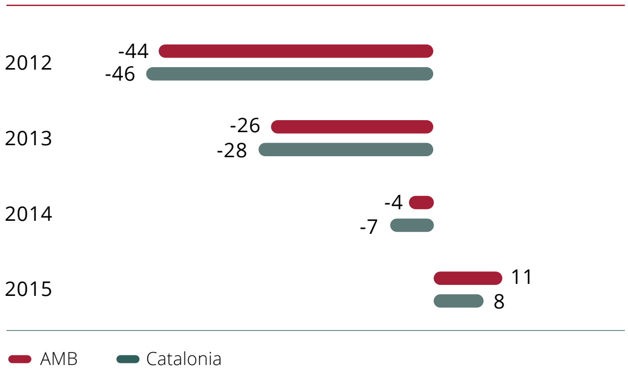
Business performance was positive in the Metropolitan Area of Barcelona for the first time since 2009

In 2015 business performance improved very significantly compared to the previous year, both in Catalonia and in the Metropolitan Area of Barcelona (AMB), according to the business climate survey carried out by Barcelona's Chamber of Commerce and Idescat. For the first time since the survey was first carried out in 2009, business performance recorded an overall positive balance for both the AMB and Catalonia. These results mirror the improvement in the economic situation during 2015, in line with the growth in Catalonia's GDP –estimated at 3.4% by Idescat. This growth was the result of a recovery in domestic demand, especially household consumption, as well as strong export results.

Indeed, the percentage of business people who considered business performance to be favourable increased from 22% in 2014 to 27% in 2015, while the percentage that said business performance was unfavourable went from 26% to 16% in the same period. Quarterly data show this improvement has taken place progressively throughout 2015 up until the final quarter, which recorded the most positive balance in the data series available.

Business performance across the economy[1]. Comparison with Catalonia

Balance[2], in %

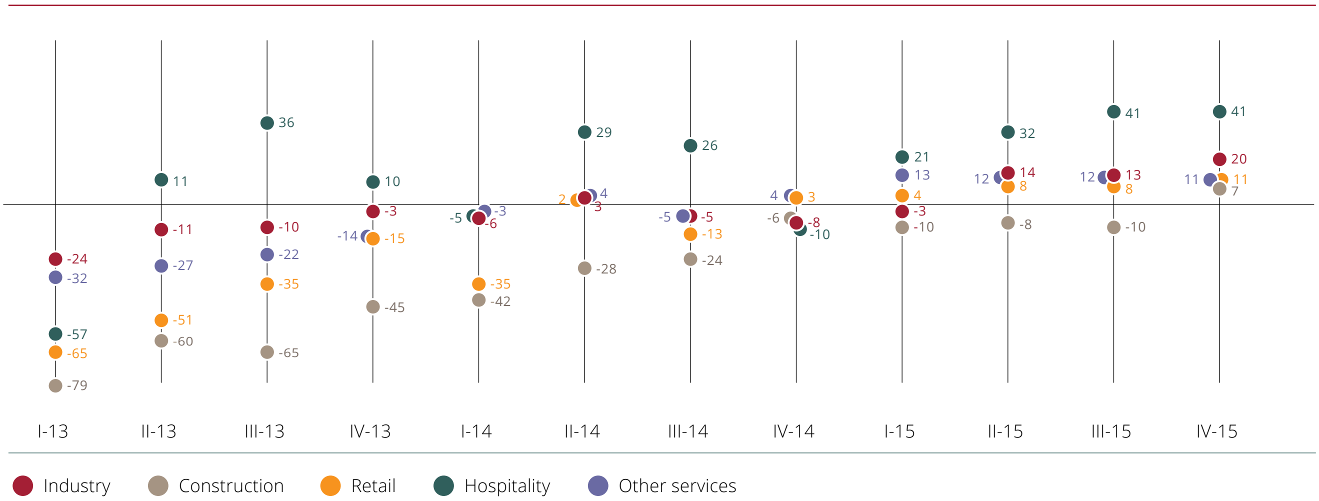


Source: Chamber of Commerce of Barcelona and Idescat

1. The results for the whole economy are the aggregation of results for industry, construction, retail, hospitality, and other services. Since 2013 data has not been presented in the survey for Spain because this data is not available. INE only publishes results for the Harmonized Business Climate Indicator for all sectors in Spain.
2. The overall balance is the difference between the percentage of businesses indicating that the variable being analysed recorded a positive performance and the percentage that noted that performance was negative. It should be mentioned that in the case of the hospitality sector the quarterly balances are subject to seasonality, and the series are too short to smooth.

Business performance by sectors

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

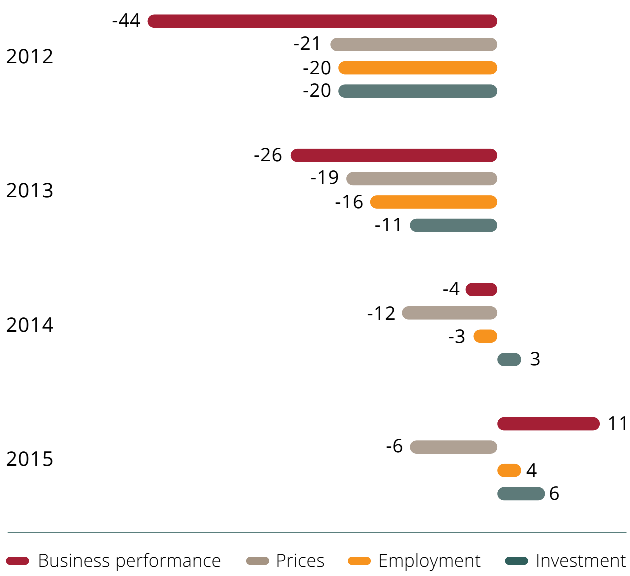
The performance of businesses in Catalonia improved significantly in 2015, although performance continues to be more positive in the AMB, with 26% of business people in Catalonia indicating business performance to be favourable, slightly lower than the 27% recorded in the AMB; meanwhile the percentage indicating performance was unfavourable is 17%, higher than the 16% recorded in the AMB.

This improved business performance has been widespread across all sectors in the last quarter of 2015, although the average annual results for the construction sector are still showing a slight decrease compared to the previous year.

Prices in the AMB continued to fall more moderately in 2015 for the third consecutive year as a result of a recovery in demand, while the falling prices of production due to low oil prices and raw materials could slow this process down in 2016. Thus, the balance between positive responses (increases in prices) and negative (decreases in prices) remains negative but the gap is narrower than during the previous three years. The quarterly data from the survey showed a stable drop in prices throughout the year. Moreover, results by sectors indicate that the slowdown in the decline of prices has been widespread, although the hospitality business is the only sector which recorded a positive balance over the year (increases in prices), which was the first time since 2009.

Business performance trends for the economy of the AMB

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Employment in the AMB also recorded a very strong performance in 2015, with jobs created in virtually all sectors, something which had not happened since the beginning of the data series in 2009. Thus, in terms of employment, there was an increase in the number of positive responses (growth in the number of people employed) from 15% in 2014 to 18% in 2015; while the percentage of negative responses (decreases in the number of people employed) fell from 18% in 2014 to 13% in 2015. In terms of sectors, the construction business is the only sector with a negative overall balance in 2015, although this sector has also experienced the most substantial improvements. It is worth noting that the hospitality sector saw the steepest increase in employment in 2015 for second consecutive year. Quarterly results show that the improvement in jobs was particularly relevant in the last three quarters of 2015, which recorded slight positive balances. These strong results confirm the turnaround observed in the labour market since 2014, as shown by data from EPA and employees paying into the Social Security (SS) system both in Catalonia and the province of Barcelona. The number of people signed up with the SS in Catalonia grew by 3.5% on average in 2015, and in the province of Barcelona this was 3.8%. However, while this is good news, there is still a long way to reach the employment levels seen before the recession.

The trend in **investment** also improved compared to the previous year, recording a slightly positive balance for the second year in a row. This improvement reflects the overall growth in positive responses (increase in investment), which went from 21% in 2014 to 22% in 2015, whilst the number of negative responses decreased (decrease in investment), which fell from 18% in 2014 to 16% in 2015. We can relate this upward trend to improvements in Gross Capital in Catalonia, which recorded an increase of 5.6% per annum on average in the first three quarters of 2015. In terms of sectors, the hospitality and commerce business areas recorded the highest increases in positive balances during the year, while the construction sector has gone from a very negative balance in 2014 to one that shows greater stability (-1%). However, not all the sectors in the survey recorded such significant improvements in 2015: industry and other services experienced a positive balance but slightly lower than in 2014.

As mentioned before, business performance was more positive for the AMB than Catalonia. However, in terms of investment, it was positive for Catalonia. For employment and prices, both areas recorded practically the same results.

Results per sector

A general trend across all sectors in the AMB in 2015 was better business performance, as analyzed in the Survey on business climate, but it was the hospitality industry that achieved the best results on all the variables analysed. However, it is worth noting that the construction sector also improved, even though this was the only sector with a negative overall balance for the whole year. Also, it is worth noting the growth experienced by industry, retail and other services sectors.

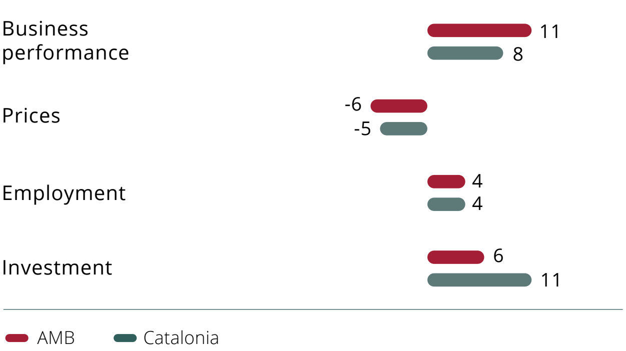
The **industry**[3] sector saw improvements across all variables analyzed in 2015, except for investment. Business performance improved in the industrial sector, achieving a positive balance for the first time in recent years. Industrial production data published by INE also shows positive dynamics in the industrial sector in 2015: the IPI for Catalonia's industrial sector registered a growth of 2.5% compared to 1.6% in 2014.

This improvement in the industrial sector's business performance has been helped by strong **exports**, which has been the driving force behind industrial activity during the last few years of the recession. Indeed, the Survey's results show a positive balance on this variable, standing at 7%, which is a similar level to the one achieved in 2012 and 2013. These strong exports results are confirmed by data from the Secretary of State for Trade showing export growth in the province of Barcelona was 6.1% in 2015, more than double the growth achieved in the previous year (3%). In addition, The Survey results show that the business climate was more positive in terms of industrial exports in the AMB in 2015 than in Catalonia.

Regarding the **prices** of goods and services, these registered a lower fall than in the previous year. In 2015, the percentage of business people who said that prices rose increased slightly to 5%, while the percentage of business people claiming prices fell stood at 10% (14% in 2014).

Business climate across the whole economy. 2015 Comparison with Catalonia

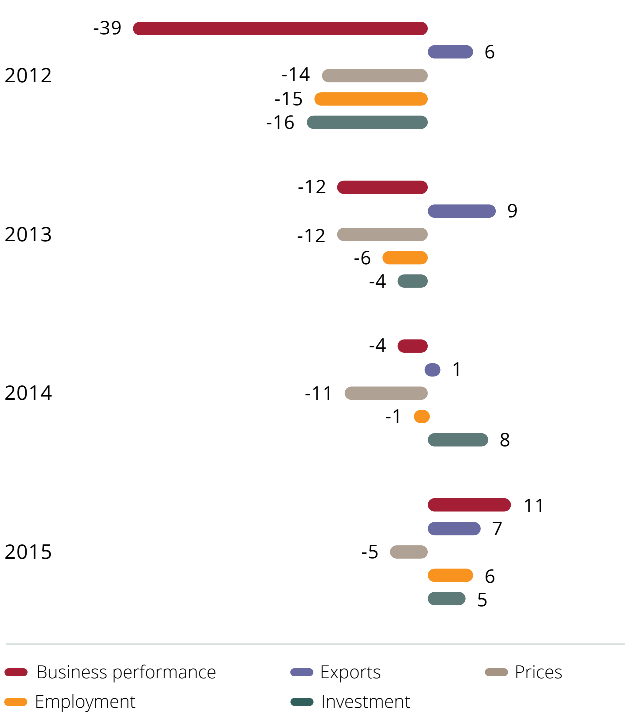
Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Trends in the business climate in the industrial sector in the AMB

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

3. Since 2013 the survey has widened the industrial sectors analyzed to cover the whole industrial sector and not just manufacturing, as had been done until 2012

However, the indicator that shows industry's greatest improvement in 2015, apart from improvements to business performance, is **employment**. In 2015, the sector experienced an increase in employment in the AMB for the first time since the data series began. The percentage of business people who said there had been an increase in employment was higher than the percentage indicating a decrease (17% and 12% respectively). Especially important were the second and the fourth quarters of the year, when the sector recorded a strong positive balance.

In terms of **investment**[4], as already mentioned, the industrial sector stabilized its growth compared to the previous year, with the percentage of firms noting that investment had grown standing at the same rate (25%), which remains above the percentage indicating a decrease in investment (even though this increased from 17% in 2014 to 20% 2015).

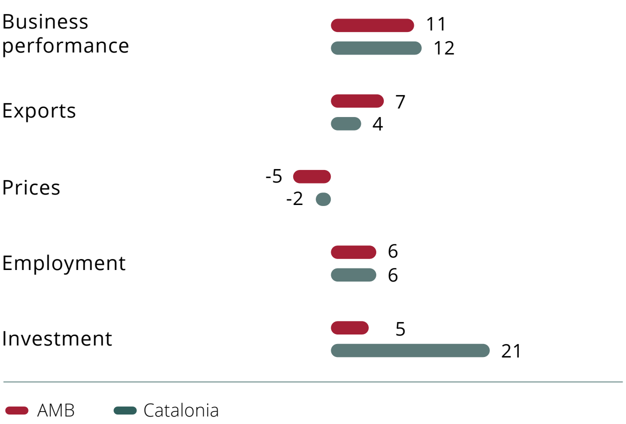
The overall trend in the industrial sector in terms of business performance was similar in the AMB and Catalonia, while investment was clearly stronger in Catalonia and exports were stronger in the AMB. Employment, on the other hand, was stronger in both areas.

The **construction** sector continues to record the most negative overall balance, but also the most significant improvements on nearly all variables analyzed (with the overall balance falling most in percentage terms), meaning that the decline is slowing down. This has been possible thanks to consolidation in the recovery process that started in the construction sector during 2015, after a very strong adjustment process that began in mid 2008. In fact, this sector recorded a positive GVA rate in 2015, after seven consecutive years in recession. This is shown by residential housing activity, property prices that have started to grow, mortgages that have also started to rise and an increase in house sales. By contrast, public works tendering in Catalonia registered a decline in 2015.

The percentage of business people saying that business performance was favourable increased slightly to 17% (11% in 2013), while those saying it was unfavourable fell significantly to 22% in 2015 (36% in 2014). Although the overall balance remained negative, it was not very far behind other sectors with positive values analyzed in the survey. It should also be noted that the last quarter of 2015 saw the lowest percentage of business people that considered business performance had been unfavourable since 2009 (16%), this comes at the same time when the survey found the highest

Business climate in the industrial sector. 2015 Comparison with Catalonia

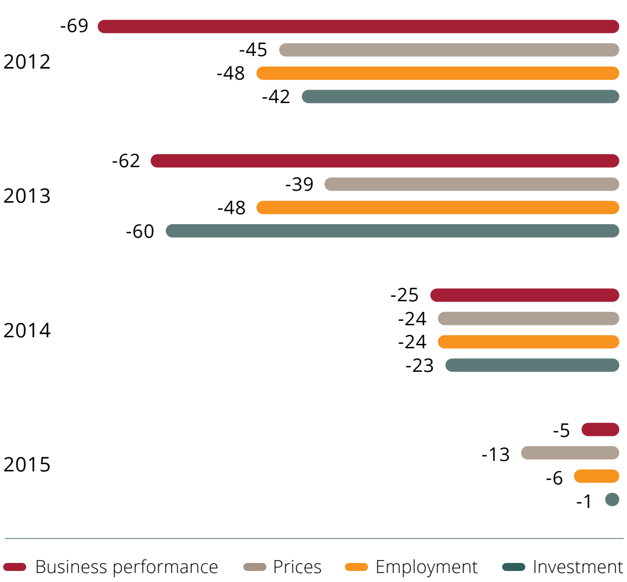
Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Trends in the business climate in the construction sector in the AMB area

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

4. From 2013 the question on the Business climate survey about investment was only asked once a year. Therefore, since there is no quarterly result, the question is about the trend in annual investments and not quarterly investments as it was before.

percentage of business people considering business performance to be favourable since 2010 (23%). This gives the first positive quarterly balance in the available series (since 2009).

The fall in **prices** continued to slow in 2015 for third consecutive year, but this variable proved to be the most negative balance for all sectors analyzed, although far less so compared to previous years. Thus, the percentage of business people in the construction sector that say prices increased in this sector rose slightly from 1% in 2014 to 2% in 2015, the percentage of business people noting a fall in prices decreased by a much higher percentage, 25% in 2014 to 14% in 2015.

Regarding **employment**, one can also observe a clear improvement in 2015, the most significant across all sectors, in which the negative balance fell to a quarter of that registered last year. Indeed, in 2015, the percentage of business people that indicated that employment would decline was 22% (compared to 33% in 2014), and those indicating that it would increase was 16% (9% in the previous year).

Also, **investment** substantially improved in 2015 to almost register a positive balance. 17% of business people suggest that investment has fallen, while 16% indicate it has risen (compared to 32% and 10% in 2014 respectively).

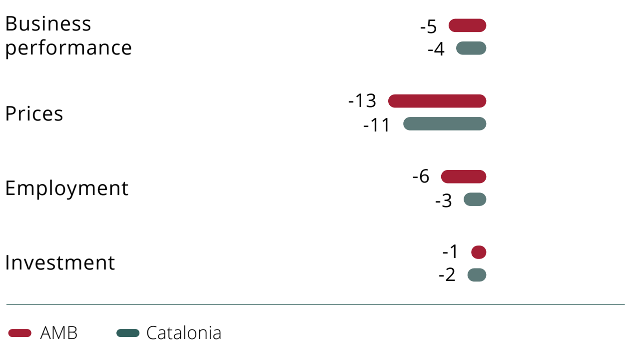
The results of the survey on the business climate in the construction sector are negative and very similar in the AMB and the whole Catalonia in 2015.

The **retail** sector recorded a significant improvement on all variables in 2015, and the overall situation is much more positive than during the previous year. These strong results have been partly due to a recovery in domestic sales throughout 2015. The index of retail sales in Catalonia, which measures the trends in the sector's activity -by way of business turnover- registered growth of 3.1% at current prices, higher than in the previous year (2.5%).

Indeed, the retail sector's overall balance registered a positive business performance in 2015 for the first time since the start of the series in 2009. This improvement was due to the fact that the percentage of business people in the sector indicating that business had been unfavourable decreased (31% in 2014 to 18% in 2015) while the percentage of business people indicating that business performance has improved rose (from 21% to 26%). Throughout the year, there was a positive and progressive improvement, and in

Business climate in the construction sector. 2015 Comparison with Catalonia

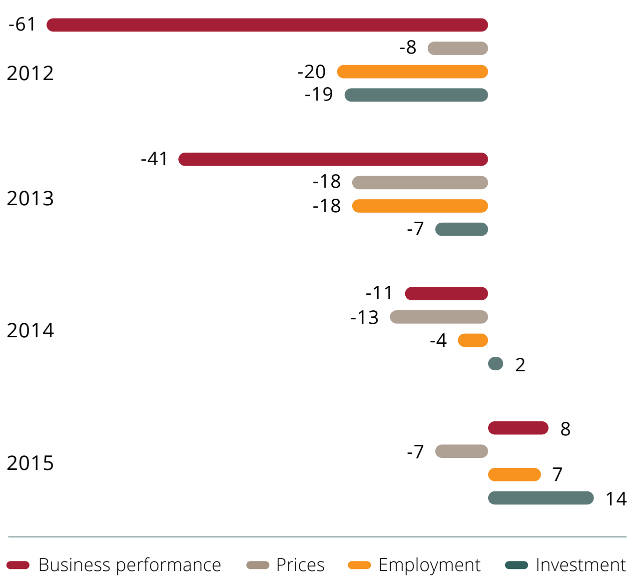
Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Trends in the business climate in the retail sector in the AMB

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

the fourth quarter the figure reached the highest overall balance since the beginning of the series (11%).

The fall in **prices** has slowed in 2015 compared to 2014 with a reduction in the percentage of business people saying that prices are declining, down to 13% (18% in 2014), in contrast to a slight increase in the percentage of business people saying prices increased, up to 6% (5% 2014).

Regarding **employment**, the balance is positive for the first time since the series started. And not only that, employment remained positive throughout all the four quarters of the year, and it followed a clear path of growth as the year progressed. On the one hand, the percentage of positive answers (meaning an increase in employment) increased to 17% in 2015 (compared to 12% in 2014) and, on the other hand, there was a significant decrease in the percentage of negative responses (decrease in employment) to 10% (17% in 2014).

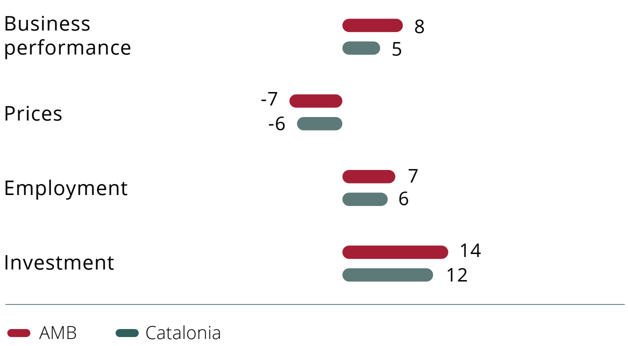
Investment also recorded a significant improvement in 2015 with a balance that was considerably more positive than the year before. Therefore, the upward trend continued after that year. Thus, the percentage of business people that indicated increases in investment far exceeds those that indicated a decrease, 25% and 11% respectively (compared to17% and 14% respectively in 2014).

The size of the overall balances on the variables analyzed in the Survey on the business climate in terms of retail are similar in the AMB and Catalonia, but somewhat more favourable in the AMB, in terms of business performance, employment and investment.

Hospitality is the sector that has by far registered the best results across all variables analyzed on the Business climate survey in 2015. These results are in line with the strong results seen in terms of tourism in Catalonia in 2015, thanks mainly to an increase in foreign tourism and a recovery in domestic tourism. The number of foreign tourists coming to the province of Barcelona increased 3.3% while spending from this tourism rose 4.5%. Similarly, overnight stays in city hotels by foreign tourists in the province of Barcelona increased by 4.1% while domestic overnights grew 5.1% in 2015.

Business climate in the retail sector. 2015
Comparison with Catalonia

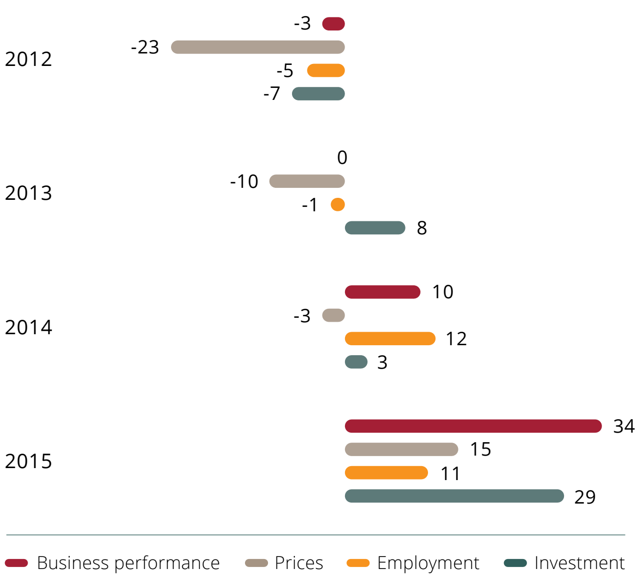
Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Trends in the business climate in the hospitality sector in the AMB area

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Indeed, the hospitality sector performed better than the rest of the sectors analyzed, it also recorded a very positive balance (34%). Although this sector has a strong seasonal effect, the overall balance has increased as we moved through the quarters (21% in the first quarter to 41% in the fourth). Thus, in 2015, 48% of business people qualified business performance as favourable, tripling the 14% that described performance as unfavourable; whereas in 2014 these percentages were 34% and 24% respectively.

Prices in the hospitality industry are the only ones showing positive values compared to all the other sectors; this sector not only had a positive balance, but the size of this overall balance was very large (15%). This could be related to an increase in the quality of hotels and also due to increased pressure from demand.

The number of **people employed** in the hospitality industry is the only indicator that showed a similar increase to the previous year. Throughout 2015 the trend in employment has been favourable, except in the last quarter due the seasonality of this sector.

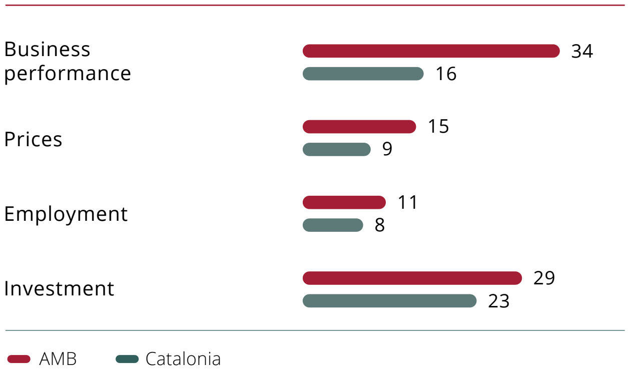
Investment in the hospitality industry has experienced the greatest increase compared to all other sectors; it went from an overall balance of 3% (2014) to a remarkable 29% in 2015. The percentage of business people indicating increases in investment far exceeded the percentage indicating a decrease -35% and 5% respectively- (compared to 25% and 22% respectively in 2014).

The hotel sector saw better results for all variables analyzed in the Business climate survey 2015 in the AMB area than in Catalonia as a whole, especially in the case of business performance, which recorded a balance that was more than twice as high in the AMB than for Catalonia. The fact that leisure tourism in Barcelona is becoming less seasonal and also thanks to the large amount of business tourism here means that the AMB performed better than Catalonia.

The **other services** sector saw positive trends in both business performance and employment. Business performance is worth noting after last year having had a negative balance in 2014, but now has the second best results by sector, only being beaten by the hospitality industry. The percentage of business people in the AMB claiming unfavourable business performance declined by nearly half, from 22% in 2014 to 13% in 2015, while the percentage saying it was favourable rose from 22% to 25% respectively.

Business climate in the hospitality sector. 2015 Comparison with Catalonia

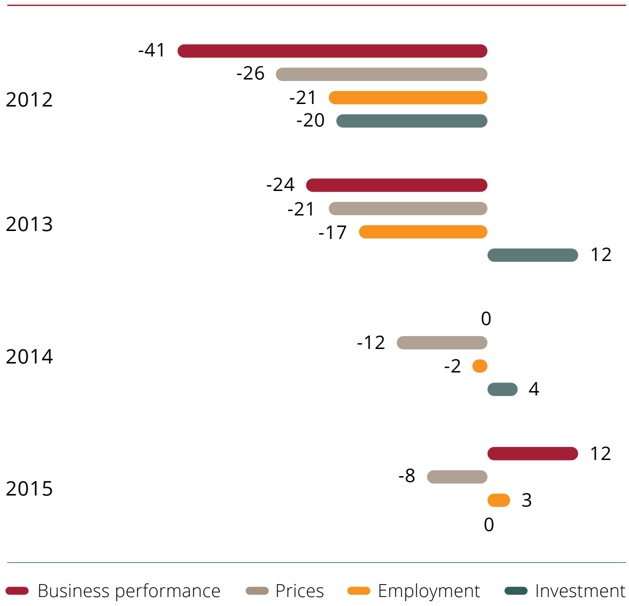
Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Trends in the business climate in the rest of services sector in the AMB

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

The decline in **prices** slowed in 2015 compared to the previous year with the percentage of business people saying prices had fallen down to 11% (15% in 2014), while the percentage that indicated an increase remained stable for the fourth consecutive year (3%). This moderation is clear when we look at the quarterly data, because as the year went by, the fall in prices reduced because of a recovery in private consumption.

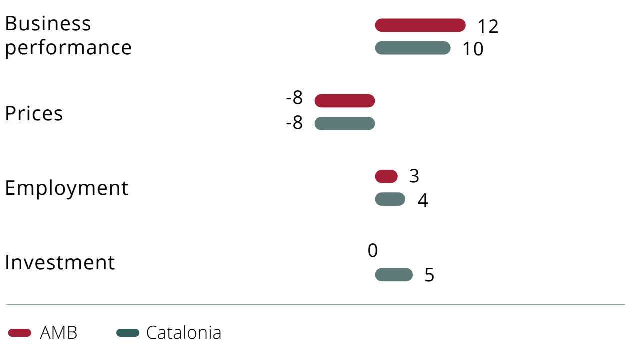
Employment in the other services sector recorded an increase in 2015, which is the first time this has happened since 2009. In quarterly terms, only the first quarter recorded a negative balance. Thus, in 2015, 15% of business people noted that employment had decreased (a lower percentage than in 2014, 19%), while the percentage pointing to an increase in employment was up to 18% (16% in 2014).

Investment was worse compared to 2014. Specifically, it registered a neutral balance compared to a slight positive balance recorded the previous year.

The other **services sector** recorded very similar results in Catalonia and the AMB. Regarding business performance, prices and employment the overall balances were virtually identical in both areas. However, investment was better in Catalonia, which returned a positive result and an improvement. The AMB area remains stable but worsened compared to the previous year.

Business climate in the rest of services sector. 2015 Comparison with Catalonia

Balance, in %



Source: Chamber of Commerce of Barcelona and Idescat

Factors that limited business performance in 2015

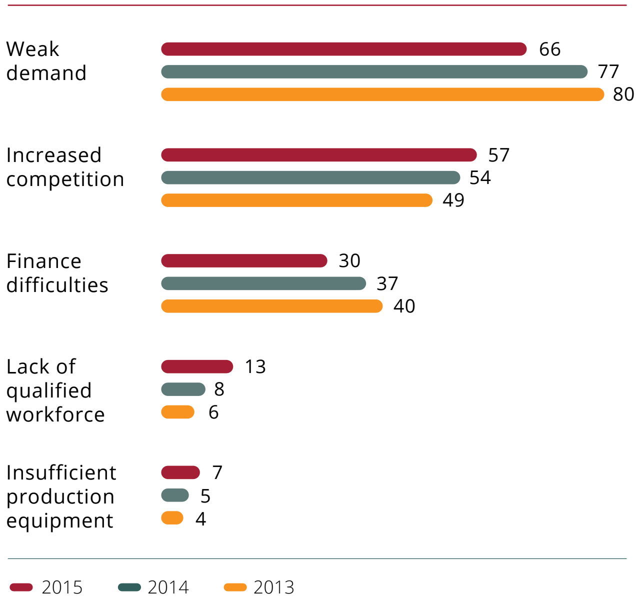
Weak demand is still the most important factor limiting business performance but less than before

Weak demand is still the factor most mentioned by employers as limiting business performance in 2015, but this factor is now less important in weighting terms compared to other factors for the third consecutive year thanks to a recovery in private consumption. However, increased competition, the second factor mentioned as limiting business performance, has gained in relevance.

Meanwhile, continued improvements to financial market conditions has made financing difficulties lose importance as a limiting factor after increasing during the recession years. However, it is the third most mentioned limiting factor.

Factors that limit business performance across the whole economy. Comparison 2013-2015

In %



Source: Chamber of Commerce of Barcelona and Idescat

Results per sector

In 2015, the most mentioned factor limiting business performance by companies in the Metropolitan Area of Barcelona was **weak demand**, but this factor has lost its importance somewhat compared to other factors for the third consecutive year, mainly thanks to a recovery in domestic consumption. Thus, 66% of business people in the AMB say that weak demand was limiting business performance in 2015, a percentage that is considerably less than the 77% recorded in 2014.

This fall in relevance has been widespread across all sectors analyzed in the Business climate survey. However, the construction and retail sectors remain the most affected by this factor, according to 69% of business people in the construction sector and 78% of retailers (lower percentages than those recorded the previous year: 88% and 83% respectively). In the industrial and other services sectors this was also the most limiting factor mentioned by businesses (64% and 61%, respectively). However, in the hospitality sector, this was the second most mentioned factor behind increased competition.

The second most mentioned factor by business people in the AMB as limiting business performance was **increasing competition**, according to 57% of responses, a percentage that is slightly up on 2014 (54%). However, this was mostly in the industrial sector and to a lesser extent the construction and other services business, while retail and hospitality saw this factor fell in terms of importance. However, the hospitality sector recorded the highest percentage of business people mentioning this as the most important factor limiting business performance (79%).

The third factor limiting business performance was **finance difficulties**, which was mentioned by 30% of business people in the AMB, a smaller percentage compared to the previous two years (37% and 40% respectively). This fall was due to both the economic recovery and improved conditions in financial markets.

This lesser issue of financing is found across all sectors, except in the hospitality industry. In the construction and industrial sectors this is intense, while in the other services sector it is not so important. The construction sector remains the most affected by funding difficulties, with 39% of companies noting this problem, followed by the other services sector, hospitality, retail and industrial sectors with percentages ranging between 27% and 31%.

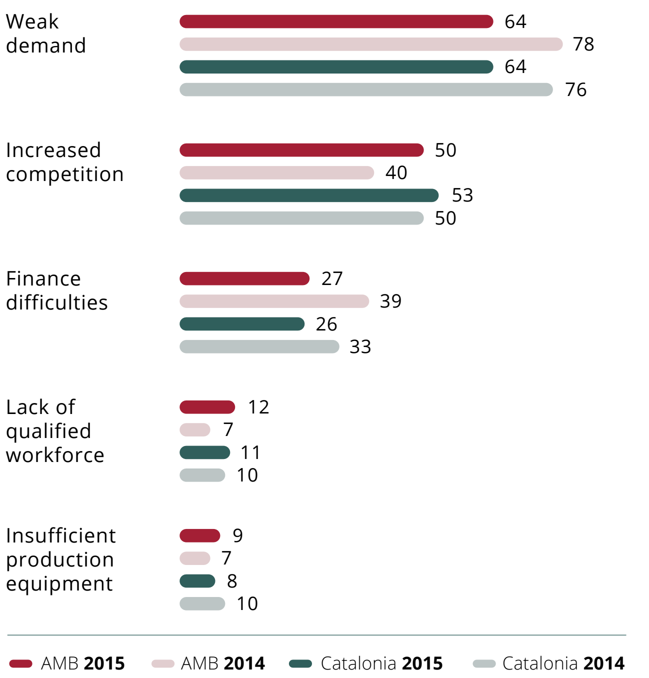
Other limiting factors with a lesser relative importance include a lack of adequate personnel to meet company needs (with 13% of responses) and insufficient production equipment (with 7% of responses). Although both factors are minor compared to the first three, it is worth noting the fact they increased in 2015 compared to the previous year, especially the factor 'lack of adequate workforce'.

From a comparison between results per sector in the AMB and the whole Catalonia, the following conclusions can be drawn:

- Weak demand was a limiting factor in the AMB and the whole of Catalonia in 2015 (67% versus 66% respectively) and there were no notable differences between sectors observed.
- The percentage of business people that mentioned increased competition as a limiting factor to business performance is almost the same in the AMB as in Catalonia, 57% and 56% respectively. However, substantial differences were observed in the hotel sector, as increased competition was the main issue in the AMB as opposed to Catalonia (79% vs. 66% respectively).
- Financial difficulties represent nearly the same problem in the AMB as Catalonia (30% and 31% respectively).
- Lack of adequate workforce recorded similar values in both areas. However, for the construction sector, this issue had a slightly higher value in Catalonia than in the AMB (9% and 5% respectively).

Factors that limit business performance in the industrial sector

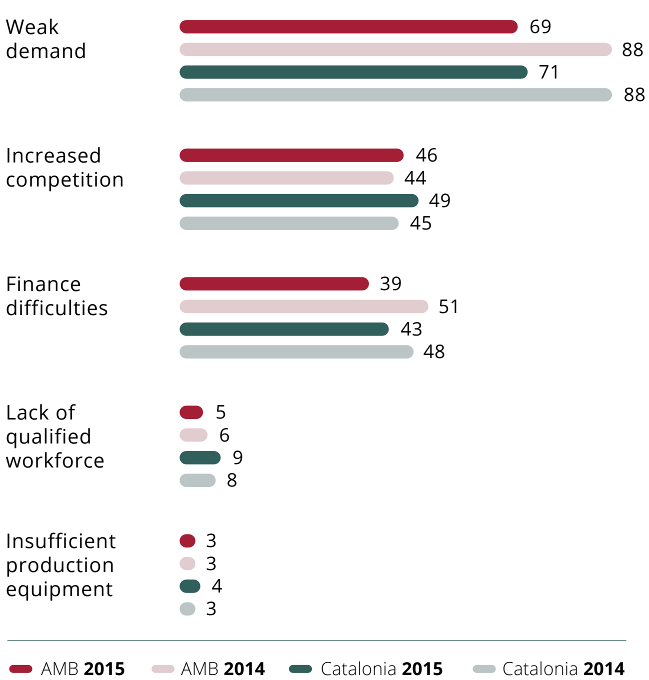
In %



Source: Chamber of Commerce of Barcelona and Idescat

Factors that limit business performance in the construction sector

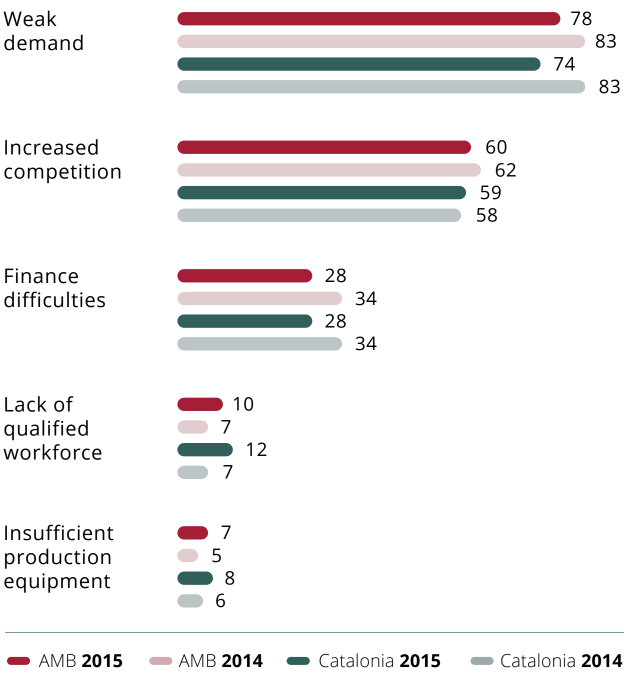
In %



Source: Chamber of Commerce of Barcelona and Idescat

Factors that limit business performance in the retail sector

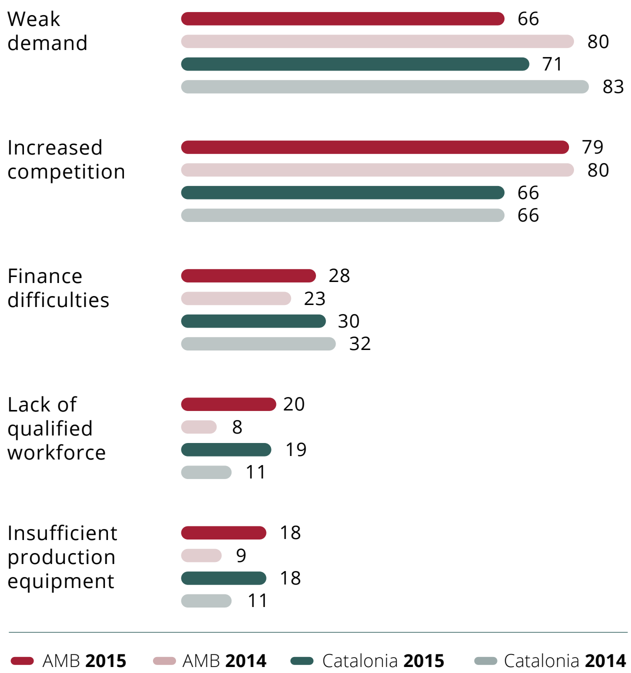
In %



Source: Chamber of Commerce of Barcelona and Idescat

Factors that limit business performance in the hospitality sector

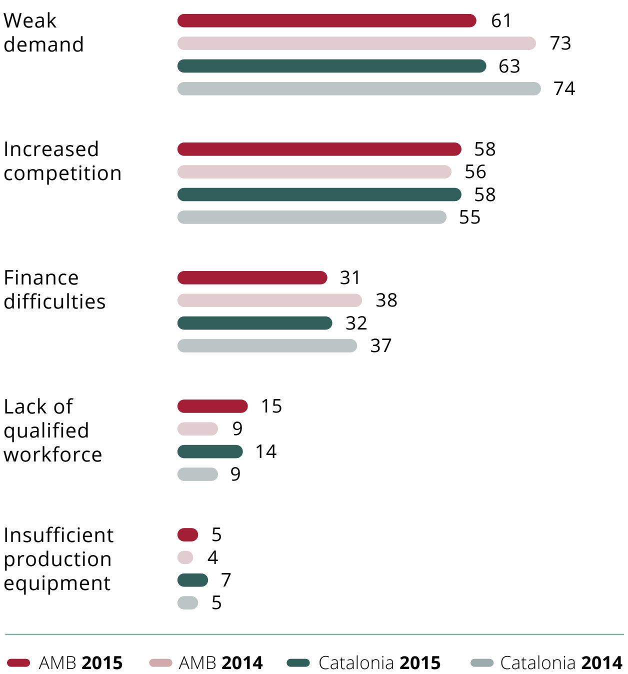
In %



Source: Chamber of Commerce of Barcelona and Idescat

Factors that limit business performance in the rest of services sector

In %



Source: Chamber of Commerce of Barcelona and Idescat

Situation and outlook for business performance in 2016

Business performance remained positive in the AMB during the first three quarters of 2016 and this trend is expected to continue in the 4th quarter

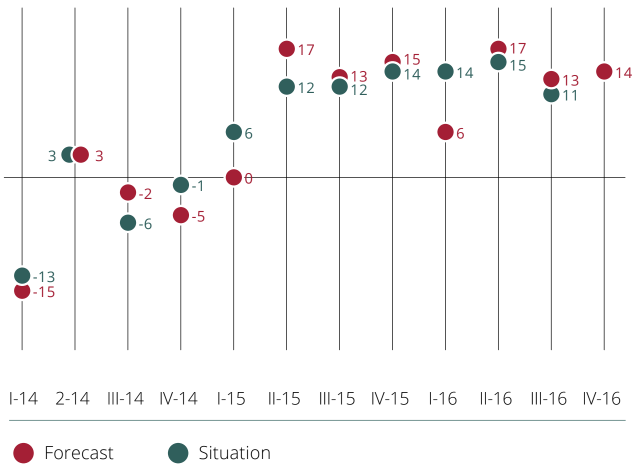
Economic recovery remained solid in Catalonia in 2016 and forecasts indicate the growth experienced in 2015 will continue this year. Indeed, the Chamber of Commerce has predicted that the Catalan economy will grow by 3.3% in 2016, virtually the same amount as in 2015 (3.4%). There are more factors that are contributing to this, including a fall in oil prices, low interest rates and a Euro exchange rate that is depreciating against the dollar.

Thus, the results of the Business climate survey confirmed the consolidation of a business recovery in the AMB in 2016. Business performance in the AMB remained positive for the first three quarters of the year, with a growth rate that has kept pace with growth experienced last year. All sectors experienced a positive balance on average in the first three quarters, except the construction sector that moved towards stabilisation despite maintaining a similar level to 2015.

Regarding fourth quarter forecasts on business performance for 2016, managers expect this to be positive and virtually identical to results obtained a year ago. By sector, business people are forecasting a slowdown in growth compared to a year ago in the industrial sector, hospitality and other services, while the outlook for the retail and construction sectors remains quite similar.

Business performance across the whole economy[1]

Balance[5], in %

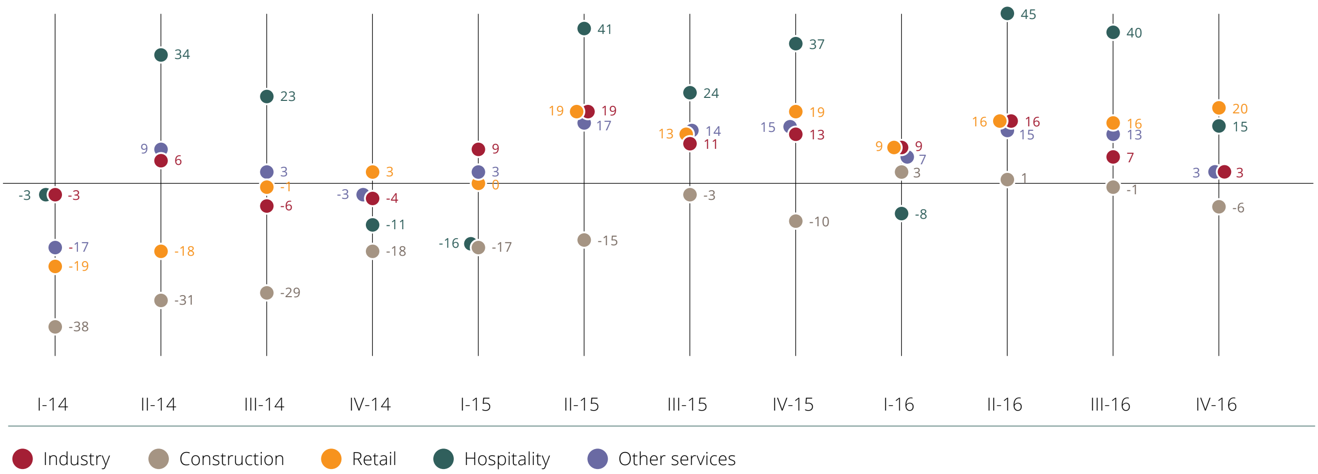


Source: Chamber of Commerce of Barcelona and Idescat

5. The overall balance for the situation each sector finds itself in is taken as the difference between the percentage of businesses who say business performance has been favourable and the percentage of businesses who say that this was unfavourable. In the case of the forecasts for 2016, this was the difference between the percentage of businesses who expect business performance will be favourable and the percentage that forecast it will be unfavourable.

Business performance outlook by sector

Balance[5], in %



Source: Chamber of Commerce of Barcelona and Idescat

Appendix on methodology

Sectors featured in the *Business climate survey*

Industry

01 Food, beverages and tobacco (CCAE-2009: 10 to 12)

02 Textiles, clothing, leather and footwear (CCAE-2009: 13 to 15)

03 Wood and cork, paper and printing industries (CCAE-2009: 16 to 18)

04 Chemical, rubber and other non-metal minerals industries (CCAE-2009: 20 to 23)

05 Metallurgy and manufacturing of metal products (CCAE-2009: 24 and 25)

06 Manufacture of machinery and mechanical equipment, and electrical products, computers, electronic and optical products (CCAE-2009: 26 to 28)

07 Other industries (CCAE-2009: 05 to 09, 19, 29 to 33, 35 to 39)

Construction

Section F of the CCAE-2009 is considered, with divisions:

41 Construction of buildings

42 Construction of civil engineering works

43 Specialised construction activities

Retail and commerce

01 Retail trade of food products, beverages and tobacco specialized (CCAE-2009: 472)

02 Retail trade of household goods, cultural and recreational goods in specialized shops (CCAE: 475 and 476)

03 Other types of retail (CCAE-2009: 473, 474, 477, 478, 479)

04 Retail in non specialised stores (CCAE-2009: 471)

05 Sales and repairs of motor vehicles and scooters (CCAE-2009: 45)

06 Wholesale trading and intermediary trading (CCAE-2009: 46)

Hospitality

CCAE-2009: 55 and 56

55 Accommodation Services

56 Food and Beverage Services

Other services

01 Information and communication (CCAE-2009: 58 to 63)

02 Legal and accounting activities (CCAE-2009: 69)

03 R&D, advertising and market research and scientific and technical activities (CCAE-2009: 71 to 75)

04 Administrative and support service activities (CCAE-2009: 77 to 82)

05 Other Services (CCAE-2009: 49 to 53, 64 to 66, 68, 92, 93 and 96)

Sampling errors. Barcelona Metropolitan Area*

Sectors	Sample	Error[6]
Industry	170	7.5%
Construction	88	10.3%
Retail	219	6.7%
Hospitality	89	10.7%
Other services	498	4.4%
Total	**1,064**	**3%**

* Quarterly average

Source: Barcelona Chamber of Commerce and Idescat

6. Maximum possible error calculated from a simple random sample.

Ajuntament de Barcelona

Cambra de Comerç de Barcelona