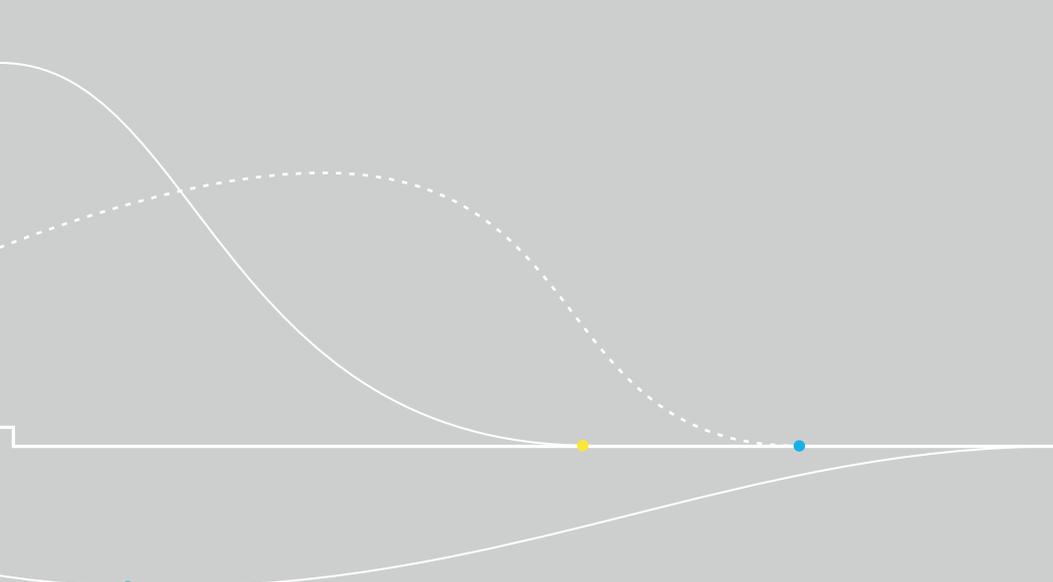


**FOREIGN
DIRECT INVESTMENT
IN BARCELONA**
A CITY FOCUSED ON GROWTH



Ajuntament
de Barcelona



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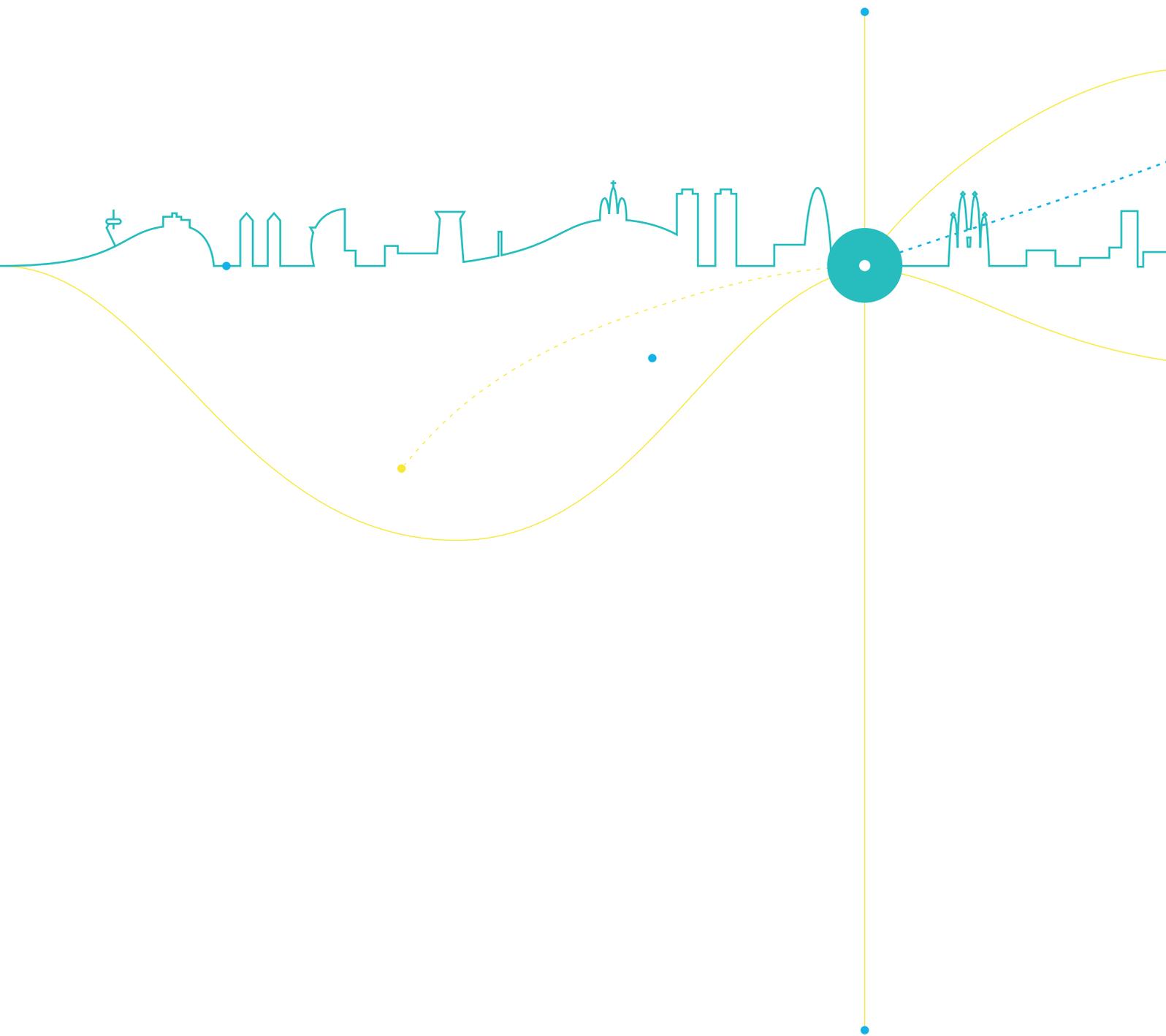
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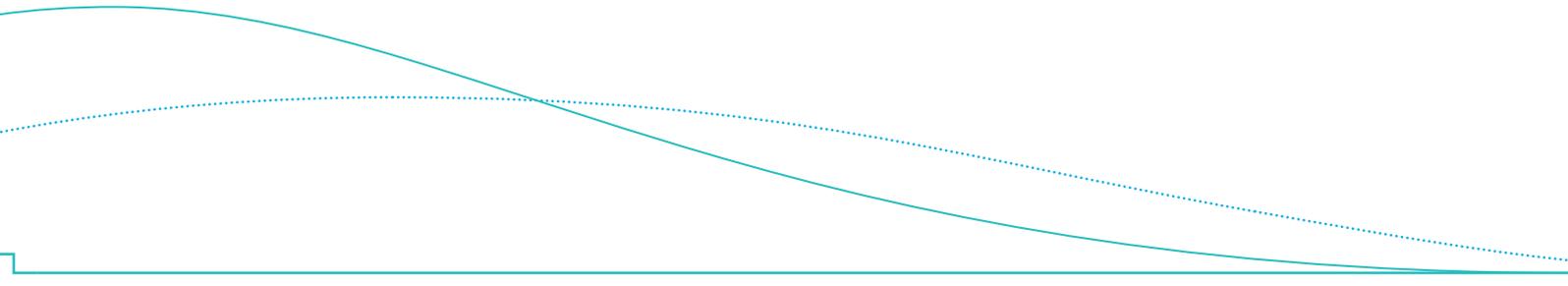
December 2014



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INTRODUCTION

Metropolitan areas are constantly competing for dynamic global foreign direct investment (FDI) flows, so it is important for Barcelona and its hinterland to know why foreign firms do and don't invest in the region. In a globalized economy, it is critical to understand what makes this region a good place for foreign investment and to offer insightful recommendations to authorities.

This document summarizes the seventh edition of a report about the importance of FDI to Barcelona. The report begins with a quantitative analysis based on FDI-related information in public and private databases. Afterwards, there is a qualitative analysis based on information from focus groups, interviews with experts taking FDI decisions, and a survey, to broaden understanding about the key factors behind foreign firms' decisions to invest in Barcelona. The third part summarizes the main conclusions. The fourth part provides recommendations for authorities on how to boost Barcelona's position as a magnet for foreign investment.

Finally, the appendix details the methodology used, a bibliography, a list of participants, the research team and acknowledgements.

Asian countries are rapidly increasing their FDI flows. In the last 5 years Catalonia has doubled its FDI inflows from East Asian countries.

1. QUANTITATIVE ANALYSIS

FDI IN CATALONIA DURING THE RECESSION, A POSITIVE PERFORMANCE

During the period 2007-2013, worldwide FDI flows decreased by almost 27%. In Europe, they declined by 72% and in Spain by 47%. However, Catalonia increased its inflows by 50% during this period (→ SEE FIGURE 1). If we only take productive investment, Catalonia's share in Spain's FDI grew from 7.9% in 2008 to 20.6% in 2013. The increase in productive investment (versus mergers or acquisitions that do not necessarily create new activities) was the main reason for Catalonia's strong performance.

In terms of FDI, Catalonia has shown resilience to the recession, despite developed countries tending to lose their share of investment. European countries have been the main contributors to FDI in Catalonia over the past 10 years. Between 2008 and 2013, these investments totaled 22,220 million euros (79% of all FDI received within the region) and this share rises to 85% if we only take productive investment. This implies that Europe is the major source of productive investment for Catalonia (→ SEE FIGURE 2).

While FDI from developed economies has decreased since 2007, emerging-market firms increasingly invest in foreign countries. In 2013, the share of global FDI outflows from emerging and transition economies reached 39%, when 15 years ago they represented only 7%. While the prices of commodities remain high in next few years, this trend will go on. In Catalonia, investment growth coming from East Asian countries has been remarkable, almost doubling in the last five years compared to 2002-2007. East Asian flows into Catalonia were mainly driven by Japan (181 million euros in the last five years). Indian and Chinese investments still constitute modest inflows (60 and 12 million euros, respectively), but they are increasing rapidly.



Catalonia increased its inflows by up to 50% between 2007 and 2013

More than 80% of North-American, Italian and Japanese firms located in Spain have at least one establishment in Catalonia.

FIGURE 1
FDI trends in Catalonia and Spain
(million euros), 2007-2013



Catalonia hosts nearly half of foreign companies operating in Spain

Some 46% of the foreign firms operating in Spain have at least one establishment in Catalonia. Germany has the strongest presence, with 987 firms located in the region. It is followed by France and the Netherlands, with 908 and 797 companies located in Catalonia, respectively. The United States (U.S.) has the largest presence in Catalonia relative to the rest of Spain (86% of U.S. firms in Spain are in the region), followed by Japan, Italy and Canada (↓SEE TABLE 1).

In terms of foreign headquarters, Catalonia hosts 31.6% of foreign headquarters in Spain. Germany accounts for most of these, with 547. Catalonia is the preferred destination for establishing headquarters in Spain for foreign investors from various European countries (such as Italy, Austria, Switzerland or Belgium) and for East Asian and BRICS countries (Brazil, Russia, India, China and South Africa), which have 278 and 202 Spanish head offices in Catalonia, respectively.

FIGURE 2
Productive FDI received* in Catalonia by country of origin, 2008-2013, billion euros and in % of total productive FDI



TABLE 1
Foreign companies established in Catalonia, 2013

| | ESTABLISHMENTS IN CATALUNYA | % ESTABLISHMENT CATALUNYA / SPAIN |
|-----------------|-----------------------------|-----------------------------------|
| Germany | 987 | 42% |
| France | 908 | 64% |
| Netherlands | 797 | 38% |
| United States | 692 | 86% |
| Italy | 670 | 80% |
| United Kingdom | 474 | 33% |
| Switzerland | 365 | 51% |
| Luxembourg | 329 | 48% |
| Denmark | 223 | 69% |
| Japan | 186 | 80% |
| Portugal | 176 | 28% |
| Belgium | 144 | 55% |
| Austria | 104 | 68% |
| Other countries | 945 | 30% |
| TOTAL | 7,000 | 46% |

SOURCE: INVEST IN CATALUNYA-ACCIÓ (CATALUNYA GOVERNMENT AGENCY)

Opportunities in key sectors

Data on FDI projects in the region show that Information and Communication Technologies (ICT) was the most popular sector for investments over the last decade. However, the logistics sector has also seen growing capital investments and created most jobs (→ SEE TABLE 2). The leading sector for job creation was mobility, which includes the region's traditionally strong automotive industry.

Between 2003 and 2013, 20% of all FDI projects came from the U.S., with these representing 11% of total capital investment. With respect to capital invested, Germany is the leader, with 21%. This difference in capital investment is because U.S. companies and projects are mainly focused on ICT, which require lower levels of capital. Germany, meanwhile, is the leader in capital-intensive sectors such as mobility, design, medicine, biotechnology and life science. France stands out as the main foreign investor for logistics, tourism, creative industries/media and in the energy sector.

Estimates show
FDI has created over
87,500 jobs in Catalonia
during the past ten
years

TABLE 2
Number of FDI Projects in Catalonia,
Capital Invested and Jobs Created
(% by Sector and Cluster), 2003 -2013

| CATALONIA (2003 - 2013) | | | |
|--------------------------------|------------------------|---|---------------|
| SECTORS | NUMBER OF FDI PROJECTS | CAPITAL INVESTMENT (IN MILLION DOLLARS) | JOBS CREATED |
| | % Share | % Share | % Share |
| ICT* | 21% | 14% | 15% |
| Logistics* | 8% | 22% | 15% |
| Mobility* | 7% | 20% | 18% |
| Biotech. and Life Science* | 7% | 5% | 5% |
| Financial Services | 6% | 5% | 2% |
| Consumer Goods | 6% | 3% | 5% |
| Physical Sciences | 6% | 6% | 2% |
| Food and Agriculture* | 6% | 4% | 5% |
| Industrial | 6% | 2% | 3% |
| Professional Services | 5% | 1% | 5% |
| Construction | 4% | 4% | 14% |
| Tourism* | 3% | 2% | 2% |
| Design* | 3% | 1% | 2% |
| Creative Industries/ Media* | 3% | 1% | 2% |
| Energy* | 2% | 6% | 1% |
| Other sectors | 8% | 5% | 4% |
| TOTAL | 836 | 36,074 | 87,526 |

*SECTORS CONSIDERED STRATEGIC BY BARCELONA CITY COUNCIL. WE MATCH FDI-MARKETS DATABASE DEFINITIONS WITH THE CATALAN CLASSIFICATION OF ECONOMIC ACTIVITIES DEFINED IN 2009 (CCAE-2009).

SOURCE: AUTHOR'S ANALYSIS FROM FDI-MARKET DATABASE

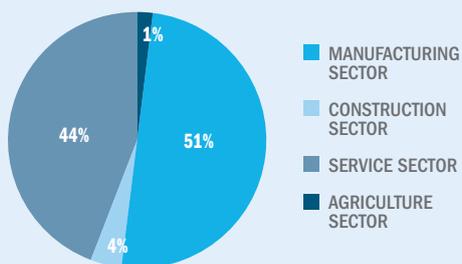
Barcelona is the top non-native English speaking city in Europe attracting most FDI.

Manufacturing investment is taking a back seat to investments in the service sector. The service sector is expanding and between 2008-2013 its relative weight was 13 percentage points higher than in the period 2002-2007 (↓ SEE FIGURE 3). Most FDI increases in the past five years were driven by investments in the services sector. Agriculture and construction are relatively small sectors for investment, and account only for 4% and 5% of total FDI, respectively.

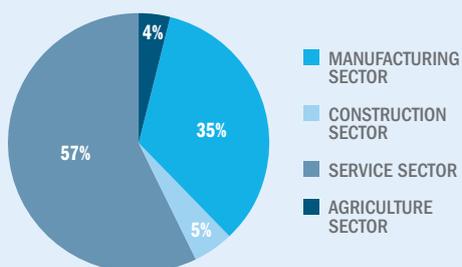
In terms of FDI by branch of activity, pharmaceutical manufacturing, information and communication technologies (ICT), storage and transport activities (logistics) and vehicle manufacturing stand out as the fastest-growing areas in the region, along with activities related to the financial sector.

FIGURE 3
Total FDI received in Catalonia by sector (2002-2007 and 2008-2013)

2002-2007 Total: 18.97 Billion euros



2008-2013 Total: 22.22 Billion euros



SOURCE: AUTHOR'S ANALYSIS FROM DATAINVEX, SPANISH MINISTRY OF ECONOMY AND COMPETITIVENESS

Barcelona, a European leader in FDI-driven job creation

By analyzing the FDI-Market database, we identified 5,369 investment projects to compare the main 39 European Union (EU) metropolitan areas between January 2011 and October 2013. Estimates show these projects represented investments worth \$133,144 million and created 316,349 jobs.

In Barcelona, 270 foreign direct investments created 20,334 jobs and totaled \$7,460 million. Barcelona ranked 6th in number of projects, but 3rd in terms of capital invested. Regarding job creation, Barcelona ranks 5th among all European cities, after London, Bucharest, Dublin and Warsaw. If we exclude the construction cluster – since these activities tend to be temporary– Barcelona ranks third in Europe among cities where FDI creates most jobs (↓ SEE TABLE 3).

TABLE 3
European city ranking of job creation by FDI (2011 - OCT 2013)

| CITY | TOTAL FDI JOBS | CONSTRUCTION JOBS | FDI JOBS WITHOUT CONSTRUCTION |
|------------------|----------------|-------------------|-------------------------------|
| Dublin | 31,799 | 178 | 31,621 |
| London | 36,638 | 9,941 | 26,697 |
| Barcelona | 20,334 | 4,387 | 15,947 |
| Warsaw | 21,631 | 9,397 | 12,234 |
| Bucharest | 35,862 | 28,665 | 7,197 |

SOURCE: FDI-MARKETS DATABASE

Information and Communication Technology (ICT)

During these years, ICT has been the most important sector for Barcelona in terms of job creation, followed by mobility (mainly in the automotive industry) and logistics –excluding construction– (→ SEE TABLE 4). ICT investments have exceeded pre-recession levels, placing the metropolitan area of Barcelona among the major European areas receiving FDI projects in ICT. In fact, the city has become a specialist in attracting projects from Europe and Japan, and design and development centre investments. At a European level, ICT investments are becoming focused on specific subsectors (such as shared services or technical support centres), areas in which Barcelona is becoming a key player. Barcelona's ICT-mobile industry is benefitting from its reputation as the world's capital of mobile technology and related service activities.

Other Key Sectors

The Barcelona region leads Europe in terms of jobs created in the logistics and design sectors, with the latter accounting for 22% of all jobs created in Europe. It ranks in the top 5 in 12 of the 15 sectors considered (construction, ICT, logistics, mobility, retail and consumer goods, biotechnology and life sciences, tourism, food and agriculture, creative industries/media, design, energy, and higher education and research). Moreover, Barcelona is the most diversified city in terms of attracting investments in different sectors (→ SEE TABLE 4). Barcelona is one of the preferred FDI destinations for European and Japanese projects, and has the potential to attract other major world players, like the U.S. or China.

When analyzing investments in terms of activities or parts of the value added chain, Barcelona is the most attractive city for investments in logistics, distribution and transportation. It ranks in the top 5 in 8 of the 16 activities studied: construction, manufacturing (ranking 2nd), sales, marketing and support, logistics, headquarters, design, development and testing, technical support centres and shared services centres. Only London and Dublin, with 11 top 5 positions in activity areas, outperform Barcelona.

ICT, logistics
and the automotive
industry are the key sectors
attracting FDI in
Barcelona

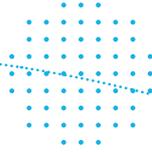


TABLE 4
Position of Barcelona in FDI by sectors and activities/parts of the added value chain
FDI IN MAIN EUROPEAN CITIES (2011 - OCT 2013)

| SECTOR | # | TOP EUROPEAN CITIES | JOBS CREATED | ACTIVITY | # | TOP EUROPEAN CITIES | JOBS CREATED |
|-----------------------------|----|---------------------|--------------|--|-------|---------------------|--------------|
| Construction | 1 | Bucharest | 28,665 | Construction | 1 | Bucharest | 28,747 |
| | 4 | Barcelona | 4,387 | | 5 | Barcelona | 4,469 |
| | | Total | 74,597 | | | Total | 90,981 |
| ICT | 1 | Dublin | 15,125 | Business Services | 1 | London | 6,909 |
| | 3 | Barcelona | 5,315 | | 25 | Barcelona | 430 |
| | | Total | 70,350 | | | Total | 42,520 |
| Financial Services | 1 | Warsaw | 4,669 | Manufacturing | 1 | Dublin | 4,680 |
| | 12 | Barcelona | 582 | | 2 | Barcelona | 3,853 |
| | | Total | 24,244 | | | Total | 39,181 |
| Logistics | 1 | Barcelona | 1,663 | Sales, Marketing & Support | 1 | London | 5,415 |
| | | Total | 17,075 | | 5 | Barcelona | 1,981 |
| Professional Services | 1 | Dublin | 3,016 | | Total | 33,694 | |
| | 16 | Barcelona | 276 | Logistics, Distribution & Transportation | 1 | Barcelona | 3,053 |
| | | Total | 16,821 | | | Total | 28,400 |
| Mobility | 1 | Birmingham | 2,410 | Headquarters | 1 | Dublin | 5,841 |
| | 2 | Barcelona | 1,904 | | 4 | Barcelona | 1,399 |
| | | Total | 16,242 | | | Total | 24,242 |
| Retail and Consumer Goods | 1 | Stuttgart | 1,368 | Design, Development & Testing | 1 | Dublin | 3,556 |
| | 5 | Barcelona | 1,008 | | 2 | Barcelona | 3,286 |
| | | Total | 12,867 | | | Total | 20,389 |
| Biotech. & Sciences of Life | 1 | Dublin | 4,263 | Customer Contact Centre | 1 | Dublin | 2,187 |
| | 4 | Barcelona | 745 | | 6 | Barcelona | 565 |
| | | Total | 11,797 | | | Total | 9,382 |
| Tourism | 1 | Birmingham | 1,968 | ICT & Internet infrastructure | 1 | London | 1,584 |
| | 5 | Barcelona | 529 | | 14 | Barcelona | 172 |
| | | Total | 8,978 | | | Total | 8,130 |
| Food and Agriculture | 1 | Dublin | 764 | Research & Development | 1 | London | 3,227 |
| | 2 | Barcelona | 577 | | 8 | Barcelona | 148 |
| | | Total | 7,643 | | | Total | 6,302 |
| Creatives Industries/ Media | 1 | London | 1,860 | Technical Support Centre | 1 | Dublin | 1,607 |
| | 4 | Barcelona | 575 | | 5 | Barcelona | 300 |
| | | Total | 7,265 | | | Total | 4,165 |
| Design | 1 | Barcelona | 1,028 | Shared Services Centre | 1 | Dublin | 1,290 |
| | | Total | 4,776 | | 3 | Barcelona | 428 |
| Energy | 1 | Copenhagen | 591 | | | Total | 3,992 |
| | 3 | Barcelona | 392 | Education & Training | 1 | London | 296 |
| | | Total | 4,273 | | 8 | Barcelona | 81 |
| Aeronautics | 1 | Madrid | 446 | | Total | 1,799 | |
| | 16 | Barcelona | 21 | Maintenance & Servicing | 1 | Sofiya | 200 |
| | | Total | 2,547 | | 6 | Barcelona | 96 |
| Higher Education & Research | 1 | Paris | 306 | | Total | 1,685 | |
| | 5 | Barcelona | 64 | Electricity | 1 | Antwerp | 147 |
| | | Total | 1,246 | | 8 | Barcelona | 73 |
| Other sectors | 1 | Frankfurt am Main | 2,792 | | Total | 943 | |
| | 11 | Barcelona | 1,268 | Recycling | 1 | Paris | 135 |
| | | Total | 35,628 | | | Total | 544 |

SOURCE: FDI-MARKETS DATABASE AND AUTHOR'S ANALYSIS

2. QUALITATIVE ANALYSIS

Quality of life, brand image, labour costs and strategic geolocation: main reasons motivating FDI in Barcelona



Why do foreign firms invest in Barcelona?

Overall, experts in consulted focus groups, questionnaires, interviews and surveys showed that the factors influencing FDI in the Barcelona area range from personal and micro-level economic factors to macroeconomic considerations. Participants stated that Barcelona attracts foreigners and consequently foreign investment because it is a pleasant city to live in. Secondly, from a micro-economic perspective, participants noted that this area offers a pool of well-qualified human resources, competitive labor costs and attractive business ecosystems. And thirdly, from a macro-economic perspective, interviewees said the Barcelona area has a geo-economic strategic advantage because of its location at the centre of the Mediterranean region, a position strengthened by its logistics and transportation infrastructure.

According to a survey, experts indicated that intangible factors such as quality of life and the image of Barcelona are the most important reasons for FDI in the Barcelona area (→ SEE FIGURE 4). Barcelona's reputation as a pleasant place to live and its positive brand image are valuable intangible assets that explain why foreign investors are attracted to Barcelona as an FDI destination. Moreover, experts widely agreed that Barcelona's transportation and logistics infrastructure, airport and geo-economic location are important reasons for foreign firms to invest in the Barcelona area. The availability of a well-qualified and low-cost labour force and the existence of thriving business ecosystems were also crucial factors for attracting FDI to the region.

People love Barcelona

Barcelona continuously figures among rankings of cities with the best quality of life. The weather, the cultural and architectural heritage, the leisure and sports activities and a growing cosmopolitanism (foreign students, researchers and skilled workers), together with a wide-range of education opportunities at all levels and high quality public services, make Barcelona a very attractive and affordable place compared to other major European cities.

Barcelona continuously rates among cities in the world with highest quality of life.

Barcelona stands out for its talented and motivated skilled workforce at competitive costs

Similarly, participants in the study stated that the high quality of life – reflected by the aforementioned factors, and others like the quality of public and private schools and universities, convenient local transportation and security – attracts a pool of international talent, making the region attractive for foreign investments. Because of this positive image of Barcelona, foreign investors and employees enjoy relocating with their families to Barcelona.

Favourable geographic location and infrastructure

Barcelona and its hinterland provides a strong distribution hub that is close to the rest of Europe and with global connectivity. Survey respondents were generally satisfied with the logistics infrastructure and transportation systems. The port of Barcelona offers favourable opportunities for global trade, connecting the Barcelona area with Asia and the Americas. Located just 7 km from the city centre, Barcelona Airport is considered convenient for European business trips. However, participants stated that direct intercontinental flight connections could be improved to facilitate global business meetings. Moreover, the participants in this research said that they were generally satisfied with the road and railroad network but the scope of the port of Barcelona should be extended with freight rail. Finally, interviewees were satisfied with the quality of government support in developing an efficient Information Technology (IT) infrastructure.

Skilled labour force and low labour costs

The combination of a well-qualified labour force and low labour costs makes the Barcelona area attractive for FDI, compared to other Western European cities. Specifically, several interviewees stated that the Barcelona area offers a pool of talented engineers with relatively low labour costs. Participants also highlighted the high-levels of employee motivation, which has risen further with the recession. The availability of a skilled and motivated workforce and the most competitive labour costs in Western Europe has increased the competitiveness of the Barcelona area when it comes to attracting FDI. Participants were also generally satisfied with labour reforms, saying that these reforms were reasons to invest in the Barcelona area. Moreover, participants noted favourably that there is a relatively low employee turnover in companies and that it is relatively easy to recruit young talent.

FIGURE 4
Ranking of top 25 FDI project motives

| | |
|--|------|
| Quality of life | 4.02 |
| Image of Barcelona | 3.87 |
| Transportation and logistics infrastructure | 3.81 |
| Barcelona airport and its connections | 3.72 |
| Geo-economic location of Barcelona | 3.69 |
| Skilled workforce availability | 3.44 |
| Port of Barcelona | 3.40 |
| Proximity to customers | 3.38 |
| Entrepreneurial spirit | 3.38 |
| Network linkages with business partners | 3.35 |
| ICT infrastructure | 3.34 |
| Opportunity for alliances | 3.28 |
| Climate to foster innovation | 3.27 |
| Attractive industry clusters / critical mass | 3.22 |
| Presence of foreign companies | 3.21 |
| Legal security | 3.13 |
| Access to advanced local knowledge | 3.11 |
| Deployment of existing advanced knowledge | 3.10 |
| Local market size | 3.09 |
| Local market profitability | 2.96 |
| Local market growth potential | 2.96 |
| General competitive operating cost | 2.95 |
| Low labour cost | 2.92 |
| Geographic proximity to the home country | 2.90 |
| Ease of doing business | 2.80 |

SCALE: 1 – STRONGLY DISAGREE / 2 – DISAGREE / 3 – NEITHER AGREE OR DISAGREE / 4 – AGREE / 5 – STRONGLY AGREE

SOURCE: IESE SURVEY

Network/innovation-based motives have emerged as a clearly differentiated reason to invest in Barcelona beyond the classic factors.

Competitive labour costs and income tax

Average labour costs in Spain remain among the lowest in the EU15 and in nominal terms stand at the same level as in 2009. Spanish labour costs are only bettered by those of Portugal and Greece. The other EU-15 countries had costs per hour between 17% and 50% higher in 2013.

Similarly, labour taxation rates are among the lowest of the EU15 for both low and average wages, as well as for highest (following the OECD's tax calculator and KPMG's Individual Income Tax and Social Security report). In particular, the Spanish tax system has a special regime for displaced workers from abroad in the first 6 years, paying only a flat 24.75% tax rate on their salary income (24% probably in 2015). This legislation (known as 'Beckham's Law') provides greater benefits for salaries between 50,000 and 600,000 euros.

In the ICT/computer programming sector, Catalonia's labour costs rank 30th among the 39 EU-28 regions with the highest number of people employed in the sector, and only above three regions in the EU-15. Combining labour with other operational costs, IBM's global report *The World's Most Competitive Cities* places Barcelona in the group of world cities that offer the greatest possible competitiveness to firms at the least possible cost for both ICT sector and Shared Services Centres.

A thriving business ecosystem for FDI

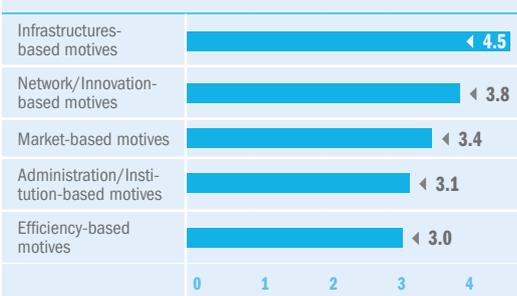
The Barcelona area offers a favourable place for foreign firms to establish links with suppliers, customers, business partners and research centres, and take advantage of the knowledge generated by creative entrepreneurs, innovation centres, and new technology and consumer trends. The Barcelona area has one of the most diversified industry sectors in Europe, maximizing the opportunities of finding the right suppliers for developing innovative projects.

Barcelona is creating vibrant business ecosystems in various sectors (i.e. the ICT or biotechnology sectors) and there are opportunities to collaborate with positive network effects. There is a strong presence of foreign firms and the potential to incorporate local firms in business ecosystems. Overall, the Barcelona area is increasing its standing as a knowledge hub in emerging technology-based sectors. Moreover, low rental prices and widely available new office space is contributing positively to the creation of business ecosystems.

In this research, a new factor cluster labelled 'network/innovation-based motives' emerged as a clearly differentiated reason for FDI investment reasons from the four classical groups of motives, namely infrastructure, market, efficiency and institutional motives (→ SEE FIGURE 5). The analysis showed that the factor 'infrastructure-based motives' is the most important in explaining FDI in the Barcelona area and that other FDI motives, such as 'market-based' and 'efficiency-based,' are significantly less important for the Barcelona area than 'network/innovation-based motives.'

The emergence of this motive reflects a shift from the traditional reasons behind FDI in Barcelona, as measured in previous studies. The importance of the domestic market in FDI decisions has dropped over the last three years, and other factors such as its skilled workforce, industrial clusters and universities and research centres have become more important.

FIGURE 5
Relative importance of FDI motive factors



SOURCE: IESE SURVEY

In Barcelona, 70,000 employees and more than 3,400 companies (200 of these foreign companies) are directly involved in the ICT business cluster.

Barcelona's ICT business ecosystem

The ICT industry is an important sector in the economy of Barcelona, with nearly 70,000 employees and more than 3,400 companies with at least one employee (200 of these firms are foreign companies). Barcelona is the Mobile World Capital (MWC) and the most important congress in this industry will be held in the city annually until 2018. In Barcelona, there is a powerful cluster of leading international e-commerce and internet companies. The Mobile World Capital Foundation is also developing several public-private initiatives in order to transform Barcelona into a living lab for mobility solutions (m-health, m-education) and to foster the development of an entrepreneurial mobile ecosystem with initiatives such as Barcelona Soft Landing.

The city also organizes other global ICT industry activities such as Management and Clinical Innovation on Health (MIHealth) focused on e-health or 4 Years From Now (together with the MWC Congress) to foster new business. Moreover, Barcelona has the most important conference focused on Smart Cities: the Smart City Expo World Congress. Barcelona was the genesis of the City Protocol, for creating an international common exchange system of smart cities' data.

Barcelona City Council (via its Development Agency Barcelona Activa and the Municipal Institute of Informatics-IMI) is a catalyst to help bring about technological change and innovation. IMI created so-called Centres for Shared Innovation to carry out innovation activities, which are useful for the municipality, with companies and research centres. Barcelona has launched a powerful programme on e-government (open data, transparency and e-democracy) and on innovative public procurement (Open Challenge Barcelona). The objective is to make Barcelona an urban laboratory for testing hardware and software (apps, etc.) to improve management efficiency and quality of urban life. Barcelona has more than 400 public hotspots WIFI (the largest network in Southern Europe), as well as a wide coverage of optical fibre and 4G. As a result of this commitment to innovation, Barcelona received the European Commission's award for being the European Capital of Innovation in 2014.

Starting in 2014, Barcelona City Council brought together several facilities to foster innovation and entrepreneurship in the Barcelona Growth Centre, situated in the heart of 22@, the city's innovation district. These innovation and entrepreneurship facilities include the Business Support Office and a showroom highlighting the city's strengths and helping new companies in Barcelona. Here, we also find other facilities like Barcelona Soft Landing, mStartupBarcelona, Mobile World Capital Foundation and two university research centres.

Education, research and clusters

Barcelona has an extensive network of universities and research centres across all subject areas. There are some of the best rated business schools in the world (two of them are ranked in the top 10 among European business schools). There are more than 200,000 students in nine universities in the area of Barcelona (20,000 in ICT-related careers); around 5,900 engineers graduate annually (3,000 in ICT) and more than 300 doctoral PhD theses are awarded every year. The area of Barcelona hosts 23,000 foreign students, being a top destination of the Erasmus programme. Additionally, vocational schools in the Barcelona area educate 8,000 students annually in specialties related to ICT. The Catalan Government also has an ambitious plan to scale up dual vocational training and forecasts that 3,500 students will be studying and working in companies through this initiative in the 2014-15 course. Among research centres, technology centres and specialized clusters in ICT, noteworthy are the world class facilities at the Barcelona Supercomputing Centre, Alba Synchrotron, the headquarters of the global ITER (International Thermonuclear Experimental Reactor) project, the Research Institute on Artificial Intelligence or the Microelectronics National Centre. In the regional network of Catalonia's research centres (CERCA) and technology transfer centres (TECNIO), there are centres such as the Computer Vision Centre, the BDigital technology centre, Barcelona Media centre, the Internet Research Centre (I2CAT) foundation, TIC-Salut foundation and the Centre for Numerical Methods in Engineering (CIMNE).

Barcelona's port is a key asset in attracting investments from Asia-based firms.

Regarding associations or clusters, initiatives such as C-Tecno (forum of ICT companies, universities and administration), E-commerce & Tech Barcelona (retail and internet firms and investing companies) Digital Cluster of BDigital and Edutech (educational technologies firms) have been established.

Enablers

According to the Catalan Government, the ICT sector is a driver of technologies in its Regional Research and Innovation Strategies for Smart Specialisation (RIS3) for focusing its European Structural Investment Funds from the EU for the 2014-2020 period. Catalonia also has its own European Enterprise Network office to facilitate Small and Medium-sized Enterprise's (SME) access to European funding. The Catalan Government and Barcelona City Council are carrying out an active policy to support participation in European Research and Development (R&D) projects (Horizon 2020). In the previous European R&D 2007-2013 framework programme (FP7), Catalonia was paired with countries receiving more grants per capita from the European Research Council.

Access to banking and non-banking finance is improving and there are new subsidies to foster job creation, and not only in the ICT sector:

- For start-ups that aim to grow and operate in Barcelona, there are over 30 private and public equity funds covering different stages including seed capital.
- Barcelona Activa (municipal development agency) has several incubation facilities, and there are also several private incubator and accelerator programmes.
- Catalan and Spanish governments facilitate loans and guarantees with the traditional financial sector through the public banking system.
- The Catalan government and Barcelona municipality also grant investments creating jobs.
- The Spanish government has an aggressive policy of tax incentives for R&D as well as to favour the recruitment of disadvantaged groups (young people, long-term unemployed). The Catalan government also offers support for the recruitment of PhDs by companies.

Other significant results can be seen when analyzing survey responses by type of respondent:

Entrepreneurial firms rated their motives for FDI in the Barcelona area higher than established firms did, and they also declared they are slightly more likely to invest in the future.

For entrepreneurs the main motives to invest in Barcelona include the existence of attractive industry clusters, critical mass and ecosystems with a large presence of foreign companies, along with local market growth potential. Because the presence of innovative entrepreneurial firms increases the value of business ecosystems, which also attracts established firms, Barcelona and its hinterland has opportunities to continue to concentrate an attractive mix of entrepreneurial and established firms.

Experts located in Spain rate most FDI motives and barriers higher than experts located outside of Spain. Importantly, experts located in Spain were significantly more satisfied with their FDI projects in the Barcelona area and also significantly more likely to (re-)invest in the Barcelona area, both in the short and long term.

Moreover, the survey indicated that emerging-market firms rate most FDI motives in the Barcelona area higher and FDI barriers lower than do developed market firms. In particular, South American firms appear to perceive FDI motives to be stronger than other firms and Asia-Pacific firms indicate that they are most likely to invest in the long run. Because the port of Barcelona provides the fastest entry point into Western Europe for trade and commerce shipped from the Asia-Pacific region, our results show that Barcelona's port is a valuable asset in attracting investments from Asia-based firms, which has yet to be fully exploited, especially when the freight railway connection with Europe is completely operational.

What are the obstacles for FDI in Barcelona?

Experts from focus groups from the survey indicated that institutional and administrative processes, as well as the current economic and political environment, represent the main obstacles for FDI in the Barcelona area.

Institutional and administrative obstacles

Participants perceived taxes, regulations, and legal security as the most important barriers for FDI in the Barcelona area. Although the participants stated that the tax benefits for displaced workers is attractive and provides incentives for executives to re-locate to Barcelona, over-regulation, bureaucracy and delays to the deadlines of public management and administrative procedures in individual and business administrative processes represent substantial barriers.

The new Spanish Law 14/2013 on support for entrepreneurs substantially reduced the requirements and time periods to obtain residence and working permits for five groups of non-EU foreigners: a) investors in real or personal property; b) entrepreneurs creating jobs and contributing to scientific and technological innovation; c) researchers and teachers; d) highly qualified professional managers of large enterprises, strategic industries, companies with business projects creating jobs and graduates and postgraduates from prestigious universities and business schools; and e) for intra-company transfers (from a company abroad to a parent or subsidiary in Spain). According to available data, the processing time has been reduced from 99 to 76 days on average and the minimum time processing a permit has been reduced from 55 to 30 days. Spain has recently become the EU country with the greatest flexibility in the processing of working and residence permits.

This law was also accompanied by the Law 20/2013 on the Single Market that facilitates business throughout Spain. The law establishes the principle that any business entity (or good) operating (or being distributed) in a part of Spanish territory shall be entitled to move to another part without further restrictions.

Economic and political uncertainty

A certain unpredictability in law court rulings and frequent changes to taxes and rules constitute considerable barriers for FDI in the Barcelona area. The law is often unclear and interpretation is difficult. Although in general, political uncertainty is considered negative for long-term investments, the data do not show any measurable impact in the Barcelona Area. FDI decisions, especially of firms based in the U.S. and Asia, are not affected by the current political uncertainty. The only concern foreign investors have is in the case that the independence movement jeopardized Catalanian membership of the EU or Eurozone.

There are significant differences in how FDI barriers are perceived according to experts' country of origin

Experts from emerging-market firms and specifically from South America perceive FDI barriers in the Barcelona area relative to other European metropolitan areas to be less important than developed-market firms. Experts from North American firms tend to perceive FDI barriers to be weaker than the rest of firms. Firms from Asia-Pacific perceive bureaucracy as being a significantly higher barrier than do firms from other world regions, while experts from Spain perceive political uncertainty and the costs and time to start a business as a significantly higher barrier than the remainder of firms.

3. CONCLUSIONS

Barcelona ranks in top 5 in 12 of the 15 most important sectors receiving FDI



BARCELONA, A LEADING FDI DESTINATION

The Barcelona area's relatively strong FDI performance has resulted in a positive impact on employment and in terms of leadership in several sectors at the European level. The crucial factors in attracting FDI into the Barcelona area include its highly valued intangible assets, favourable geographical location and infrastructure, well-qualified and low-cost workforce, as well as the development of attractive business ecosystems. Improving perceptions is essential in order to attract new firms, ensure re-investments and take advantage of the important growth opportunities provided by emerging market firms. To do this, Barcelona should reduce economic and political uncertainty and consolidate itself as an international ICT benchmark. The future of FDI is about cities, not countries.

1. During the recession, Barcelona's FDI has grown more than in other European and Spanish regions

Catalonia (mainly the Barcelona area, which accounts for 91% of foreign companies located in the region) was able to increase its inflows by up to 50% between 2007 and 2013. The region is host to 7,000 foreign company establishments, with 46% of foreign firms located in Spain having at least one establishment in Catalonia. Barcelona is successfully accommodating the growth of emerging economies, which in 2012 and 2013 overtook developed countries in terms of volume of foreign investments received.

ICT, logistics, mobility, design and financial sector are the trendiest industries in Barcelona for foreign investors.

2. Barcelona ranks third among European cities in terms of jobs created from FDI, even leading several sectors under this concept

Between January 2011 and October 2013, 270 foreign direct investments worth \$7,460 million led to the creation of 20,334 jobs in Barcelona, which placed Barcelona 3rd in terms of European job creation. Barcelona stands out as the European leader in terms of employment creation in the logistics and design sector, accounting for 22% of all jobs created in Europe in the latter sector. It ranks in the top 5 in 12 out of the 15 most important sectors for this concept. ICT, logistics and mobility, along with the financial sector, currently appear to be the hottest industries in Barcelona for foreign investors.

3. The value of Barcelona's intangible assets

Although tangible assets such as the roads and railways, airport, and port are important factors for the Barcelona area in attracting FDI, it is difficult to differentiate oneself from competing Western European cities solely on infrastructure. What makes a difference to the perception of experts consulted is Barcelona's quality of life, reflected in factors like the quality of public and private schools and universities, convenient local transportation services, security, and last but not least the climate, sea, architecture and Barcelona's recreational areas.

Quality of life constitutes an important part of Barcelona's FDI value proposition attracting not only foreign entrepreneurs and firms in the tourism and entertainment sectors, but also executives of established companies from all other sectors. Barcelona's quality of life attracts people and companies follow people, placing Barcelona in the minds of FDI decision makers. Overall, our results suggest that Barcelona's brand image as a pleasant place to live and do global business has a positive influence on FDI decisions, which should be maintained at all costs and never underestimated.

4. Barcelona's well-qualified yet low-cost workforce attracts FDI

The availability of a skilled and motivated workforce at a price that is highly competitive in Western Europe attracts foreign investors. The combination of low-cost, high-qualified people is especially attractive for firms in labour and knowledge-intensive industries. Moreover, the experts interviewed said that the presence of a pool of international talent, which is mainly attracted by the high quality of life, provides important incentives for foreign firms to invest in the Barcelona area.

5. Barcelona is developing attractive business ecosystems

The Barcelona area is able to differentiate itself from competing metropolitan areas by developing attractive business ecosystems. Barcelona has a long and proven track record of public-private partnerships, say, in organizing large events and urban development. This has become a strategy to foster an ecosystem of innovation and entrepreneurship. A very important factor explaining why foreign firms invest in the Barcelona area includes network and innovation-based motives.

Experts that perceive business ecosystems as important are typically more satisfied with their investments in the Barcelona area and have a stronger intention to re-invest in the future. Since business ecosystems encompass links with suppliers, customers, business partners, research centres and knowledge networks, they can have a profound impact on technology and knowledge spillovers between foreign and domestic firms, the development of efficient and specialized supporting industries, and the emergence of a specialized and skilled workforce. Consequently, our findings indicate that business networks provide an important vehicle for economic development in the Barcelona area.

6. Improving perceptions to attract new firms ensures re-investments

Crucially, the willingness to invest in the Barcelona area depends on an investor's knowledge about the Barcelona area. The preferences and needs of expert groups differ substantially, suggesting that there is a need to adopt differentiated policy actions to target foreign investors located inside and outside of Spain, and depending on if the target is an entrepreneurial or established firms, the country (or continent) of origin, and the sector they are investing in.

7. Emerging-market firms provide an important growth opportunity in the long term

Barcelona is one of the preferred European destinations of firms from Europe and Japan, and it has the potential to attract other major worldwide FDI players. Those metropolitan areas that get the attention of emerging-market firms can realize FDI growth inflows in the long term. The survey indicated that emerging-market firms perceive most FDI motives in the Barcelona area as more important and FDI barriers as less important than developed-market firms. Our results show that Barcelona's port is highly significant for attracting investments from Asia-based firms. This can be exploited far more, when the freight railway connection with Europe is completely operational. Overall, although European firms will continue contributing the largest share of productive FDI in the Barcelona area, emerging-market firms can provide an important opportunity to boost Barcelona's economic growth in the medium and long term.

8. More economic and political certainty will increase the confidence of some FDI decision makers

Barcelona should focus on improving its institutional and administrative framework relating to taxation, regulations, and legal security, which are perceived as the main barriers to FDI. With respect to political uncertainty in Catalonia, some interviewees perceive this as unfavourable, despite not having a strong effect on FDI decisions, except maybe for capital intensive, long-term projects. These concerns are also mentioned in the survey, which indicates that political uncertainty represents a barrier for FDI in the Barcelona area. Therefore, an important challenge for the Barcelona area is to increase economic and political certainty, stabilizing the confidence of foreign investors and safeguarding foreign investments in the region.



The Mobile World Capital is improving Barcelona's attractiveness for ICT service investments



Globalization makes cities major factors in investor strategies.

9. Consolidating Barcelona as an international ICT benchmark

Barcelona has a rich ICT ecosystem that is benefiting from hosting the Mobile World Capital and Barcelona's brand image and quality of life. The perception of Barcelona's ability to attract ICT firms has grown in recent years, positioning Barcelona as the 3rd most important city in the sector and the top non-native English speaking city. However, Barcelona's economy is highly diversified but is losing industrial activities (as in the rest of non-Germanic Europe), particularly in the ICT sector. Barcelona needs to reverse trend because ICT industrial activities provide productivity growth and competitiveness across the whole of the economy.

10. The Future of FDI is about cities, not countries

With about two-thirds of Europe's consumers and workforce living in metropolitan areas, cities are increasingly emerging as FDI magnets and the new epicentres of power. The gradual harmonization of laws within Europe in recent decades, the adoption of a common currency and a single European market were some factors that facilitated direct comparisons between cities by international investors. The institutional and economic environment along with the more recent boosts to political, financial and fiscal integration in Europe will continue to foster competition between cities to attract FDI in the future.

Accordingly, the experts interviewed in this study stated that FDI decision-makers directly compare cities such as London, Madrid and Barcelona rather than countries such as the UK or Spain when they evaluate FDI destinations, although the context of the host country continues to have an influence. This shift in managers' attention towards metropolitan areas provides enormous opportunities for the Barcelona area to position itself as a leading world FDI destination, largely independent of the current economic image of Spain. Indeed, the findings of this study indicate that the interest of foreign investors in the Barcelona area has increased recently and the experts interviewed predict a positive trend for FDI in the Barcelona area, especially in the long term. Based on Barcelona's geo-economic location and the increasing international recognition of Barcelona Brand, experts believe the metropolitan area of Barcelona has the potential to become a leading destination for global FDI flows in several sectors such as ICT, logistics and mobility.

4. RECOMMENDATIONS



A customized and coordinated message has to be given to investors by all stakeholders involved in promoting the Barcelona area, taking into account different profiles and specific needs.

HARNESSING THE POTENTIAL

Based on our quantitative analysis, focus group discussions and interviews, we provide several recommendations about how the Barcelona area could become more attractive for FDI.

1. Barcelona, the 'Best City in the Best Time Zone'

Because of its favourable geo-economic location and time zone between the Americas and Asia business can be conducted uninterruptedly. This coupled with a high quality of life, means Barcelona is an ideal place for doing global business. Barcelona should take a leading role in Europe in attracting FDI by establishing a positioning as 'best city in the best time zone' for doing global business. To achieve this goal, it is very important to improve intercontinental connectivity.

2. Barcelona area as the base for 'Regional Sales Operations'

Because of the geo-economic location of Barcelona and the fact that sales people have to travel frequently, authorities could promote Barcelona by focusing on investments that build the base for regional sales operations (serving South Europe or Europe as a whole). Even if a foreign firm's local base for serving the domestic market could be in the capital, its regional base for serving larger European markets could be located in Barcelona. Moreover, Barcelona also has a great potential as a bridgehead for operations and investments in Latin America and the South Mediterranean area.

3. A tailored Barcelona offer for different investor's profiles

Both qualitative and quantitative studies show some significant differences in the perceptions of the attractions and barriers of Barcelona to foreign investment in terms of different investor profiles. Combining the different sources of information of this study, the table below summarizes the typical FDI profiles of investors and potential investors regarding their origin (→ TABLE 5, where # indicates the order of investor preferences).

Emerging countries are looking for intangible values or as a city to enter European markets, and don't value cost differentials as much as developed countries. Entrepreneurs and ICT companies value access to an innovative business ecosystem and penalize weak cosmopolitan and business friendly features.

All stakeholders involved in promoting the Barcelona area must understand these profiles and coordinate and transmit the same message and be adaptive to the specific needs of potential investors. This includes developing systematic competitive intelligence strategies.

4. Barcelona, Asia's gateway

The Investor's Profile shows that, currently, Asian countries typically invest in London, Köln-Düsseldorf, Barcelona and Birmingham. Asian presence in Barcelona is led by Japanese investment in the automotive industry, whereas FDI from China or South Korea is more restrained. Given that Asia is an important and fast emerging geo-economic area (the region almost multiplied its FDI outflows by 10 in the past 10 years), the findings of this study suggest that Barcelona should focus on improving its position, attracting FDI from Asia-based firms and investors mainly in the areas of logistics, ICT and services sectors, where the city is more competitive.

| WHERE DO I COME FROM? | # | EUROPE | NORTH AMERICA | SOUTH AMERICA | ASIA |
|---|---|----------------------------|----------------------------|----------------------------|---------------------------------|
| In which sectors do I typically invest? | 1 | ICT | ICT | Industrial | ICT |
| | 2 | Logistics | Financial services | Food & Agriculture | Automotive |
| | 3 | Tourism | Biotechnology | Financial services | Construction |
| In which areas does my FDI create most jobs? | 1 | Real Estate | Headquarters | Headquarters | Manufacturing |
| | 2 | Business Services | Sales, Marketing & Support | Business services | Real Estate |
| | 3 | Sales, Marketing & Support | Business services | Sales, Marketing & Support | Headquarters |
| What motivates me to invest in the Barcelona area? | 1 | Quality of life | ICT infrastructure | Legal security | Port of Barcelona |
| | 2 | Low labour cost | Quality of life | Administrative support | Image of Barcelona |
| | 3 | Skilled workforce | Image of Barcelona | Entrepreneurial spirit | Geo-economic-location |
| What concerns me about investing in the Barcelona area? | 1 | English proficiency | English proficiency | Economic uncertainty | Individual bureaucracy |
| | 2 | Political uncertainty | Political uncertainty | Political uncertainty | English proficiency |
| | 3 | Economic uncertainty | Company bureaucracy | Company bureaucracy | Corporate & Individual taxation |
| Which other metropolitan areas am I considering? | 1 | Stuttgart | Dublin | Madrid | London |
| | 2 | London | London | London | Köln-Düsseldorf |
| | 3 | Dublin | Paris | Wien | Birmingham |

SOURCE: DATA FROM FDI-MARKETS DATABASE FOR THE PERIOD (2011-2013), IESE SURVEY, FOCUS GROUPS, INTERVIEWS AND AUTHOR'S ANALYSIS (IESE)

A better developed business angels and venture capitalist base will provide enormous opportunities for attracting foreign investments in innovative activities.

Barcelona and its port represent the first major entry point into Europe on routes from Asia, and Barcelona could promote this distance-based competitive advantage better by clearly positioning itself as the most attractive European FDI destination for Asia-based firms. Ships crossing the Suez Canal towards the Atlantic ports take 5 to 6 days more than if they dock in Barcelona. This would also directly help the port of Barcelona and local transportation service providers in capturing higher loads and market share, enabling them to benefit from economies of scale.

5. Barcelona as the worldwide first 'One-Click City'

To become a top destination for FDI in the world, Barcelona should further foster technological innovation to simplify administrative processes and make the life of its citizens and companies easier. Specifically, by using smartphone and other technologies to automate administrative processes, Barcelona could become the first true ICT-mobile city. Investments in automating all kinds of processes and supplying data in real-time, would foster the innovative and creative image of Barcelona, which is in line with the technology-friendly image already established by the Mobile World Congress and Smart Cities project. Based on the idea of a one-click city, Barcelona's objective should be to make it possible to create a new business in minutes through a one-stop online shop. This should include the possibility of creating virtual companies oriented to on-line international markets and services in specific incubators or facilities with attractive conditions.

Investors need reliable frameworks to develop efficient business ecosystems

6. Entrepreneurial mindset

Foreign experts describe Catalans as being realistic and serious business people, doing things "little by little" but with *openness to new initiatives*. However, this mentality is often accompanied by a perceived lack of ambition compared to other countries, which could be correlated to worries about business failure and the personal, social and economic costs of this. The judicial procedures associated are slow and expensive, and Spain is one of the few European countries that do not have a *fresh start* legislation that allows some to restart their entrepreneurial life after a personal or corporate insolvency. Many EU countries have introduced a fresh start without undermining the payment culture, increasing the cost of credit, or jeopardizing financial stability. This change would strengthen the entrepreneurial and innovative capabilities of local people and it would multiply business possibilities.

7. Excelling in Barcelona's business ecosystems

Barcelona has an extensive network of internationally recognized universities, research centres and business schools, and a very rich ICT ecosystem, including the Mobile World Capital, in addition to specialized technology centres and a public administration that is focused on fostering technological change and innovation. To facilitate knowledge spillovers between geographically concentrated businesses and knowledge centres, the Barcelona area can foster cooperation between firms and universities and research centres by providing access to complementary resources as well as business and leisure-time activities.

The Barcelona area should promote on-line and off-line knowledge hubs and platforms such as a common portal for research and technology transfers (explaining about all the research going on in the area), community clubs and technology events to facilitate face-to-face interactions and promote the local diffusion of ideas.

Transferring technologies created in universities and R&D centres to companies would improve professionalism and gain a wider social recognition for these knowledge hubs. Their profile should have a combination of scientific and business skills and the capacity of cooperating in the wider public-private ecosystem.

Barcelona should be continuously boosting its internal strengths and promoting itself to attract investments at their origin.

Given the importance of network and innovation-based motives for FDI in the Barcelona area, any long-term commitment to channeling public resources to innovation should be combined with more developed business angels and venture capitalist base. The growth of local and international enablers will provide enormous opportunities for the Barcelona area to differentiate itself from competing metropolitan areas when it comes to attracting foreign investments in innovative activities.

8. Investing in Barcelona, a reliable process

According to the experts surveyed, political uncertainty and economic unpredictability due to frequent changes to taxes and rules constitute the biggest barriers for FDI in the Barcelona area. Establishing a clear reform agenda and assuring that legislative and political action will not have retroactive or unpredicted effects, would certainly help safeguard future FDI flows into the region.

9. Further develop the ICT sector

To consolidate its position as a benchmark in ICT cities, the Barcelona area could focus on automating all kinds of administrative processes for citizens and business, thereby decreasing FDI barriers and strengthening its reputation as an innovative business region. Leading ICT best practices attract ICT investments. To maximize this potential, the city should (some of these recommendations are also valid for other sectors) do the following:

- The ICT ecosystem should focus on the creation of synergies and detection of FDI opportunities with a global scope. Especially, the Barcelona area should establish a systematic monitoring programme to detect competitive opportunities and leverage the growing network of native managers, experts and researchers in major centres of global ICT companies.
- Stop the progressive disappearance of the ICT industrial base, given that industry is the main generator of productivity gains for the whole economy and its connection with the rest of the production ecosystem. Consequently, strengthening the ecosystem of innovation (i.e., efficiently transferring technology, aligning public and private stakeholders, improving access to venture capital and European

funds for SMEs) are key challenges.

- Strengthen R&D and technology transfer from research to new or established companies and create a local base of firms with global vocation as is being created in the ICT services sector. This includes strengthening entrepreneurial skills and developing a global business vision in the technological profiles. The public sector in Barcelona should increase efforts in terms of innovative procurement, particularly for large deployments (for example introducing state-of-the-art technologies in the largest public contracts). This effort should be extended and coordinated with the entire metropolitan region.
- There are plenty of opportunities to attract more FDI projects from the US, Europe's leading ICT investor, as well as India and China. Barcelona has, in general, a lower presence of U.S. investment projects than its main competitors (London and Dublin). Promotion should focus on attracting projects depending on their origins. A focus, for example, should be placed on California, given that 40% of U.S. projects in Europe come from this state. Barcelona is one of the preferred destinations Europeans and the Japanese, and it has the potential to attract more investments from other emerging FDI worldwide players like China or India. Political and commercial promotion should be done to achieve this.

10. Developing Barcelona's global brand

Barcelona should enhance communication about its strengths, in particular:

- The availability of qualified personnel, competitive labour costs and associated taxes compared to most competing regions, including an advantageous taxation regime for high-income foreign expatriates.
- Recent reductions in the time to obtain residence permits.
- Competitive costs in terms of offices and telecommunications, and good connectivity with the rest of Europe.
- A large and diverse university and industrial base, combined with a city that wants to lead the Smart and Innovative City movement.
- Powerful global city brand: *Designed, Made or Succeed in Barcelona* can be an asset for advanced ICT products or services associated with quality of life, culture or modern cosmopolitanism.

5. APPENDIX

TECHNICAL NOTES

Statistical analysis

The United Nations Conference on Trade and Development (UNCTAD) database and the World Investment Report 2014 provide information about the worldwide and national evolution and composition of FDI flows. DataInvex (Spanish Ministry of Economy and Competitiveness) provides regional data within Spain and a breakdown by sectors, type of investment and country of origin.

Invest in Catalonia-ACCIÓ (Catalonia Government Agency) data are used to estimate the number of companies established in Catalonia and the SABI- Bureau van Dijk (Analysis System of Iberian balances) database is used to estimate the number of foreign headquarters in Catalonia and Spain. The FDI-MARKETS database (Financial Times) provides detailed information about projects located in Barcelona (we explored the last 10 years, from 2003 to 2013) and in Europe (we analyzed FDI projects in the 39 main EU metropolitan areas between 2011 and October 2013). We have harmonized different sector definitions with the European Statistical classification of economic activities (NACE) and according to Barcelona City Council's strategic sectors. The specialized company *Gesdocument* provided the data about the requirements and time periods to obtain residence and working permits.



Focus Groups and interviews

After analyzing the data and reviewing previous reports about investment in the Barcelona area, we conducted four focus group meetings of two hours duration each, with a total of 15 FDI experts as participants and three researchers from the Public-Private Sector Research Centre at IESE Business School (PPSRC-IESE), as well as 10 individual interviews. Both focus groups and interviews were conducted using five predefined questions.

The focus group meetings took place at IESE Business School in Barcelona in February and March 2014. The aim of the focus group discussions was to establish an open dialogue about the strengths and weaknesses of the Barcelona area in terms of attracting FDI.

Survey

Based on the insights gained from the focus group discussions, we developed a survey questionnaire with several multiple-choice and open questions. The survey was sent to three main groups: Spanish IESE alumni working abroad, foreign IESE MBA (Master in Business Administration) alumni abroad and foreign alumni living in Catalonia.

Overall, 187 experts answered the survey between March and April 2014. Almost two-thirds of the experts who participated in the survey work at senior management level and about one fourth at middle management level. Accordingly, more than half of the surveyed experts work in areas such as management, strategy and finance. Two-thirds of the experts live and work outside of Spain, whereas one-third are located in Spain. Moreover, 44% of the participating experts had been previously involved in an FDI project and almost one-fourth were previously involved in an FDI project in the Barcelona area. Regarding countries of origin, 18% of the sampled firms were from the United States, 9% from Germany, 8% from the United Kingdom. Of the sampled firms' industry sectors, 18% have their main business in consulting, 15% in banking and finance, 14% in technology, internet or telecommunication.

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Questionnaire Respondents: 187 IESE alumni living abroad or foreigners living in Barcelona

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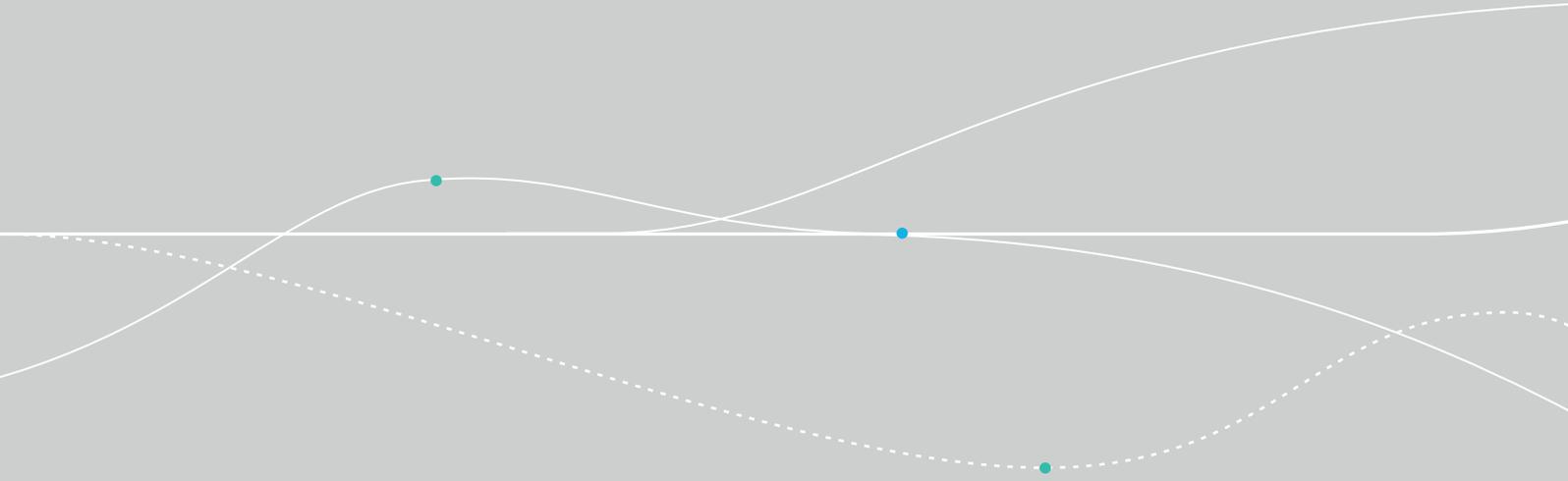
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