Competitiveness and the internationalization of the Spanish economy

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Introduction

• **Convergence** of GDP per working-age population of Spain to the major advanced economies requires a more productive use of available resources, particularly employment, and the increase of productivity.

• A dual productive sector in which many firms that do not promote human capital accumulation, innovation and trade in international markets.

• Labor markets regulations are important but also other factors, such as the size of firms and its determinants, product markets regulations and, in general, the environment to do business.

• These challenges are particularly important now, when the Spanish economy has to create a lot of employment in order to reduce the unemployment rate without incurring in past imbalances.
Convergence, employment growth and competitiveness

Spain: unemployment and current account balance
Source: Andrés and Doménech (2015)

In the past, unemployment rates reductions were accompanied by an increase of current accounts deficits.

The challenge now is to reduce the unemployment rate without increasing external debt.

Competitiveness gains are crucial to increase exports and to avoid the rise of imports, as in previous expansions.

Reducing unemployment and external imbalances is something completely new for the Spanish economy but not for other EU economies (e.g., Germany).
Is reindustrialization necessary for convergence?

Contrary to competitiveness, reindustrialization is neither a necessary nor a sufficient condition for higher income per capita in advanced economies. What matters is the specialization in activities of high value added, with appropriate conditions (regulations and business climate) for all sectors.

The correlation is negative and differences of 40 pp in income per capita with the same share of manufactures, and of 15 pp in this share for the same income per capita.

Share of manufactures in GDP per working-age population, 1970-2013
Source: Andrés and Doménech (2015) based on OECD
Internationalization challenges of the Spanish economy

• **Globalization and newer tradable products and channels** (e.g., new Internet services) imply clear advantages for consumers but new challenges to producers

• Spain, a **dual economy**: good (but relatively few) exporting firms and many domestic firms with low productivity, but also exposed to international competition

• Spain has been one of the few advanced economies, with Germany and the Netherlands, able to maintain its **share in world exports** with the smallest adjustment in export prices, even before the crisis

• The **diversification** of Spanish exports in term of products and countries is also outstanding, according to the Atlas of Economic Complexity (2014)

• The **complexity, connectedness and opportunity value** (to expand over the product space) of the Spanish economy is also relatively high
Internationalization challenges of the Spanish economy

World export shares and REERs based on export price deflators, rate of change 1999-2011, (%)

Source: Correa-López and Domenech (2012)
Internationalization challenges of the Spanish economy

Complexity, connectedness and sectoral distribution of manufacturing exports in Spain, 1999-2011

Source: Correa–López and Domènech (2012)
Internationalization challenges of the Spanish economy

Complexity and opportunity value, 2012
Source: Hausmann et al (2014)

Opportunity value

Complexity

World average

World average
Internationalization challenges of the Spanish economy

Despite the favorable performance of Spain in terms of exports share, complexity, connectedness, and opportunity value …

… the share of exports on GDP is smaller than other more successful economies like Korea, Germany or the Netherlands …

Increasing the share of exports on GDP requires to increase the extensive and intensive margins of exports.
Improving intensive and extensive exports margins

• Further advances in labor market reforms will be not enough without **better competition policies and regulations in product markets**, reduction of administrative burdens and lower barriers to internationalization.

• Spain can take advantage of the globalization process **improving its position in global value chains** or, contrary to many emerging countries, could be detached from this process.

• Spain needs to improve both the **intensive** (more exports by firm) and **extensive** (more exporting firms) **margins of exports**.

• It is necessary to understand the **determinants of firms’ internationalization**, which depend on many economic, legal and institutional aspects, …

… which are quite well **summarized in the size of firms**, a key determinant of competitiveness.
Firm size and productivity

GDP per hour and average firm size, 2010


- Positive correlation between employment in firms with more than 250 employees and aggregate labor productivity.
- Compared to other countries, the average firm size in Spain is too small.
- With the share of employment in big firms of Germany, the productivity gap would disappear.
Firm size and productivity

**Productivity and firm size, 2010**
US$ per worker, in PPP
Source: OCDE *Entrepreneurship at a Glance* (2013)

<table>
<thead>
<tr>
<th>Firm size</th>
<th>Manufacturing</th>
<th></th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spain</td>
<td>Germany</td>
<td>EU8</td>
</tr>
<tr>
<td>1-9</td>
<td>38,3</td>
<td>42,8</td>
<td>81,9</td>
</tr>
<tr>
<td>10-19</td>
<td>54,5</td>
<td>51,4</td>
<td>70,3</td>
</tr>
<tr>
<td>20-49</td>
<td>64,6</td>
<td>56,4</td>
<td>76,0</td>
</tr>
<tr>
<td>50-249</td>
<td>77,6</td>
<td>68,3</td>
<td>92,3</td>
</tr>
<tr>
<td>250+</td>
<td>125,2</td>
<td>104,1</td>
<td>141,6</td>
</tr>
</tbody>
</table>

Large Spanish firms are 3.3 (manufacturing) and 1.7 times (services) more productive than small ones.

Large Spanish firms are as productive as those in Germany or EU8.

Composition effects matter when comparing aggregate productivity.
## Firm size and productivity

### Distribution of employment according to the size of firms in different sectors, 2010

Source: OCDE *Entrepreneurship at a Glance* (2013)

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spain</strong></td>
<td>20,1</td>
<td>10,6</td>
<td>17,0</td>
<td>22,7</td>
<td>29,5</td>
<td>40,6</td>
<td>8,2</td>
<td>9,1</td>
<td>13,0</td>
<td>29,1</td>
<td>50,5</td>
<td>14,2</td>
<td>13,8</td>
<td>11,7</td>
<td>9,8</td>
</tr>
<tr>
<td><strong>EU8</strong></td>
<td>11,1</td>
<td>7,1</td>
<td>11,6</td>
<td>25,4</td>
<td>44,8</td>
<td>27,6</td>
<td>8,9</td>
<td>11,4</td>
<td>16,9</td>
<td>35,2</td>
<td>38,2</td>
<td>14,5</td>
<td>16,0</td>
<td>15,5</td>
<td>15,7</td>
</tr>
<tr>
<td><strong>USA</strong></td>
<td>7,7</td>
<td>6,6</td>
<td>17,9</td>
<td>16,9</td>
<td>50,9</td>
<td>10,9</td>
<td>7,6</td>
<td>12,6</td>
<td>16,7</td>
<td>52,2</td>
<td>25,6</td>
<td>15,2</td>
<td>27,3</td>
<td>16,4</td>
<td>15,5</td>
</tr>
</tbody>
</table>

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Competitiveness and the internationalization of the Spanish economy
Causes of the relative small size of Spanish firms

- Level of development, market size and population density
  - Bidirectional causality with per capita income
  - Lucas, 1978: as productivity and wages increase, it is better to be a worker in a large company than a small entrepreneur

- Human capital (Lucas, 1978): existing distribution of human capital, with abilities to manage medium and large firms, also interacting with family ownership of small firms

- Institutions, regulations in product (Nicoletti et al, 2001) and labor markets (Garicano et al., 2013) and taxation (Almunia and López-Rodríguez, 2014)

- Access to external finance

- Sectoral specialization: composition effects at the country level

- Performance and efficiency of the judicial system (Kumar et al, 2001, García-Posada and Mora-Sanguinetti, 2013): safety and legal certainty
Causes of the relative small size of Spanish firms

Human capital and firm size, 2010
Source: Andrés and Doménech (2015)

Employment share in firms with 250+ workers (manufactures)

Years of schooling of adult population
(de la Fuente and Doménech, 2014)
Causes of the relative small size of Spanish firms

The evidence in OECD countries shows that regulations may be a barrier to firm size growth. Selective regulations (in product and labor markets) may be a barrier to growth for large firms. When competition is limited, the most efficient firms do not drive out the less productive ones.
Main characteristics of large firms

- Higher **productivity**
- Higher **survival** probability
- Lower percentage of **temporary employment** and greater **internal flexibility**
- Lower **employment volatility** during the business cycle (Haltiwanger, Scarpetta and Schweiger, 2014)
- Higher levels of **human capital**
- Better access to external **financing**
- Higher **technological and physical capital** per worker, and **innovation and expenditure in R&D activities**
- Higher probability of **exporting**
Firm size and propensity to export

Spain: share of exporting firms and firm size, manufacturing, averages from 1990 to 2010
Source: Correa-López and Doménech (2012) based on ESEE, Fundación SEPI

Size is the most important determinant of firm internationalization
Empirical evidence shows a clear correlation between size and the share of exporting firms
This result is not a surprise given the higher productivity of large firms and the presence of fixed costs in international trade
Firm size and propensity to export

Main characteristics of manufacturing firms: exporting vs non-exporting firms
Source: Correa-López and Doménech (2012) based on ESEE, Fundación SEPI

<table>
<thead>
<tr>
<th>(median of the distribution)</th>
<th>Exporters</th>
<th>Non-exporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (a)</td>
<td>167</td>
<td>21</td>
</tr>
<tr>
<td>Productivity (value added per employee) (b)</td>
<td>33.2</td>
<td>20.2</td>
</tr>
<tr>
<td>Productivity (output per employee) (b)</td>
<td>104.7</td>
<td>48.8</td>
</tr>
<tr>
<td>Physical capital per employee (b)</td>
<td>31.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Innovation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-skilled labour (%) (c)</td>
<td>3.6</td>
<td>0</td>
</tr>
<tr>
<td>White collar workers (%)</td>
<td>28.6</td>
<td>21.4</td>
</tr>
<tr>
<td>R&amp;D and technology adoption (d)</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>Ownership structure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign capital participation* (%) (e)</td>
<td>26.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Market competition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market share in main market* (%)</td>
<td>14.3</td>
<td>7.9</td>
</tr>
<tr>
<td>Finance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term debt over own resources (f)</td>
<td>2.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Real average cost of long-term debt (%) (f)</td>
<td>4</td>
<td>4.8</td>
</tr>
<tr>
<td>Temporary employment rate (%)</td>
<td>9.3</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Notes: See footnote to Table 2 in Correa-López and Doménech (2014).
Determinants of the exporting probability: firm size

Effects on the exporting probability of an increase in its main determinants, manufacturing firms
Source: Correa-López and Doménech (2012)

- Size
- White collar workers
- Competition
- Foreign ownership
- R&D and adoption
- K per worker

We have estimated the probability of exporting after an increase in each of the main determinants from their corresponding median.

An increase of 10 employees in the median firm size (from 50 to 60 employees) would increase the probability of exporting by 1.69%.

Other determinants are statistically significant but less economically relevant.
Due to service sector deregulation since 1990, manufacturing exports are 50% higher.

Adopting international best practices in services regulations would have increased exports by 18%.

There is room to continue removing barriers to the internationalization of the Spanish economy.

Service regulations and exports

Spain: effect on exports by sector of activity of a best-practice regulatory scenario, large firms
(cumulative rate of change in %, 1993-2008)
Source: Correa-López and Doménech (2014)
Policies to increase competitiveness

- **Labor market**
  - Better regulation and greater internal flexibility: a dysfunctional labor market can be an important barrier for international trade
  - Better human capital at all levels, particularly in management positions

- **Capital market**
  - Better financing, financial information and risk assessment (SGR)
  - Better incentives and support for the internationalization of SMEs
  - Incentives for mergers and acquisitions -> deleveraging

- **Regulation and business climate**
  - Strategic objective: being among the top 10 economies in the Doing Business (administrative burdens, single market, taxation, etc.) and other rankings
  - Improve competition in intermediate inputs markets (e.g., services and energy)
  - Remove barriers, thresholds and discontinuities, reduce administrative burdens
  - Full implementation and evaluation of the Law on Market Unity
  - Institutional improvements and efficiency of the judicial system: legal certainty

- **Innovation and R&D**
  - PPPs from large technology institutes specialized in providing knowledge transfer, technology and product and process innovations to SMEs (e.g., Fraunhofer in Germany (see Comín et al, 2011), ITRI in Taiwan, ETRI in South Korea, or TNO in Netherlands)
Conclusions

• The main challenge of the Spanish economy is to create a lot of employment in order to reduce the unemployment rate but without incurring in past imbalances.

• **Competition in international markets is not an option** for the Spanish economy, which should try to increase the exports share on GDP above 50%.

• Growth will depend on the **reallocation of resources from the less dynamic and competitive firms to those with higher growth potential** and international competitiveness.

• This requires a wide menu of **economic policies in labor, capital and products markets** to improve competitiveness and to increase extensive and intensive exports margins, promoting **firm growth with better regulations and a better business climate**.
Conclusions

• **Internal devaluation** is not just producing the same goods at cheaper prices

• To be successful, internal devaluation should consist in reallocating resources from producing non-tradables with low demand to competitive and valuable tradables

• Short vs long-run complementary strategies:
  
  • In the long run, competition through better quality, higher productivity, innovation and human capital is the best strategy (as many emerging economies are doing, e.g., Korea)

  • But in the short run, prices and costs should adjust to ensure higher levels of employment, at the same time the value added of goods and services is improved as much as possible

• Short-run dilemma: exporting goods or importing unemployment (increasing inequality) and exporting workers
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References

This presentation is based on J. Andrés y R. Doménech (2015): “Mercados, Dimensión e Internacionalización de las Empresas Españolas”, Mimeo. BBVA Research.


