

Competitiveness and the internationalization of the Spanish economy

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“Recovering Competitiveness: Challenges for the Spanish Economy”

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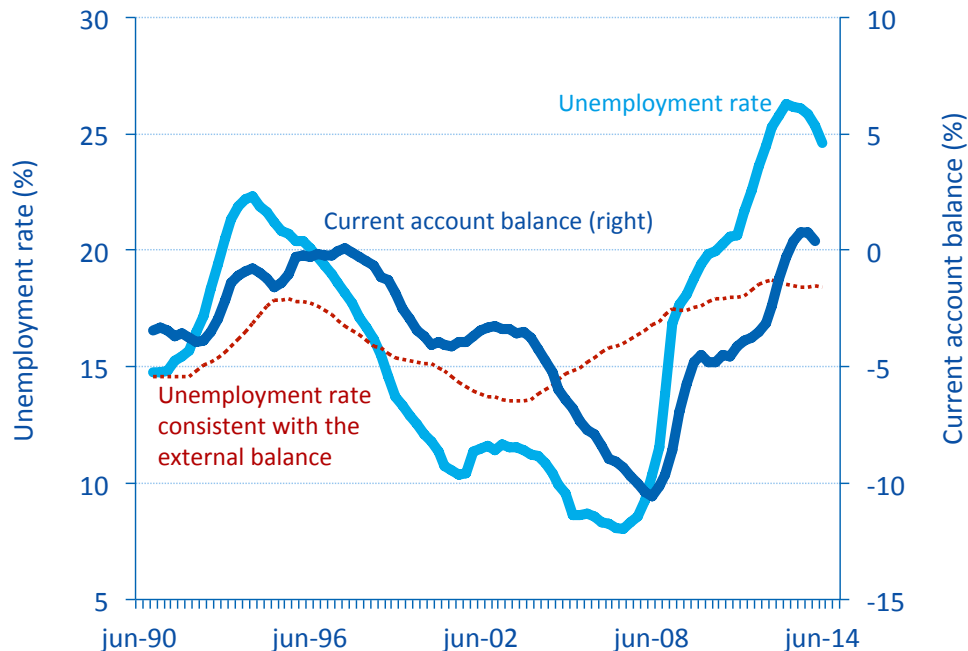
Introduction

- **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

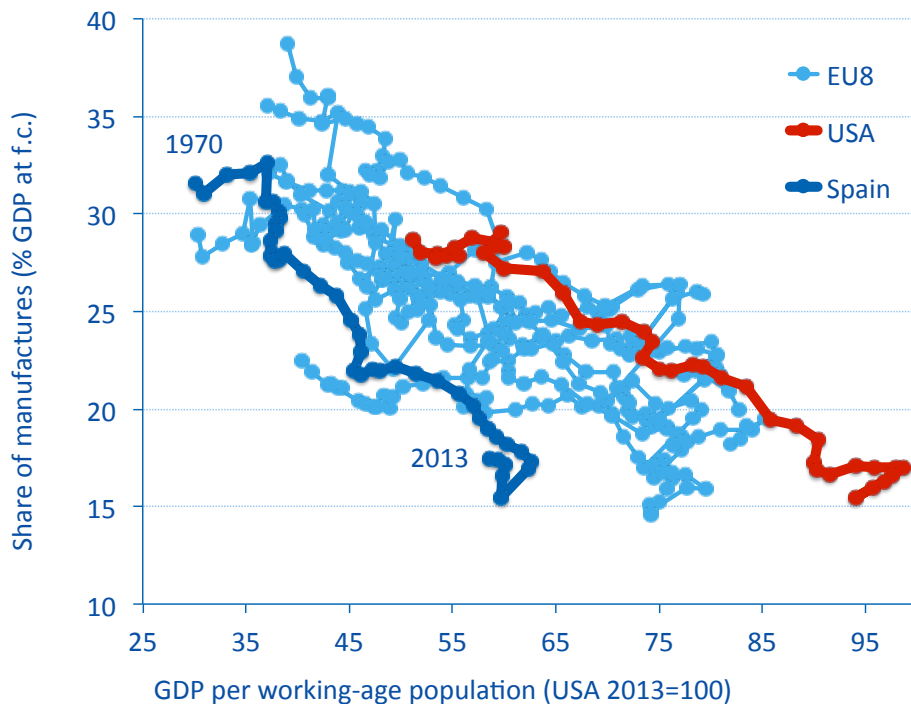
Competitiveness gains are crucial to increase exports and to avoid the rise of imports, as in previous expansions

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?

Share of manufactures in GDP per working-age population, 1970-2013

Source: Andrés and Doménech (2015) based on OECD



Contrary to competitiveness, reindustrialization is neither a necessary nor a sufficient condition for higher income per capita in advanced economies

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

What matters is the specialization in activities of high value added, with appropriate conditions (regulations and business climate) for all sectors

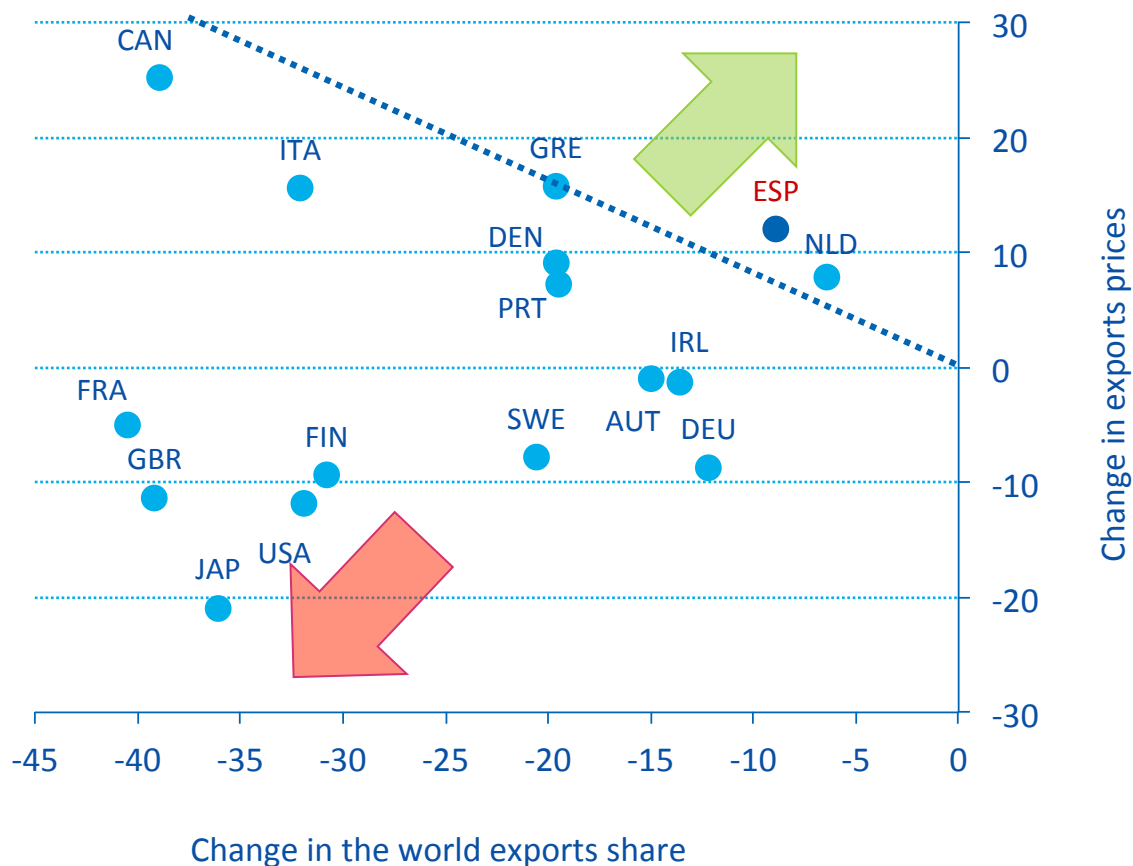
Internationalization challenges of the Spanish economy

- **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, (%)

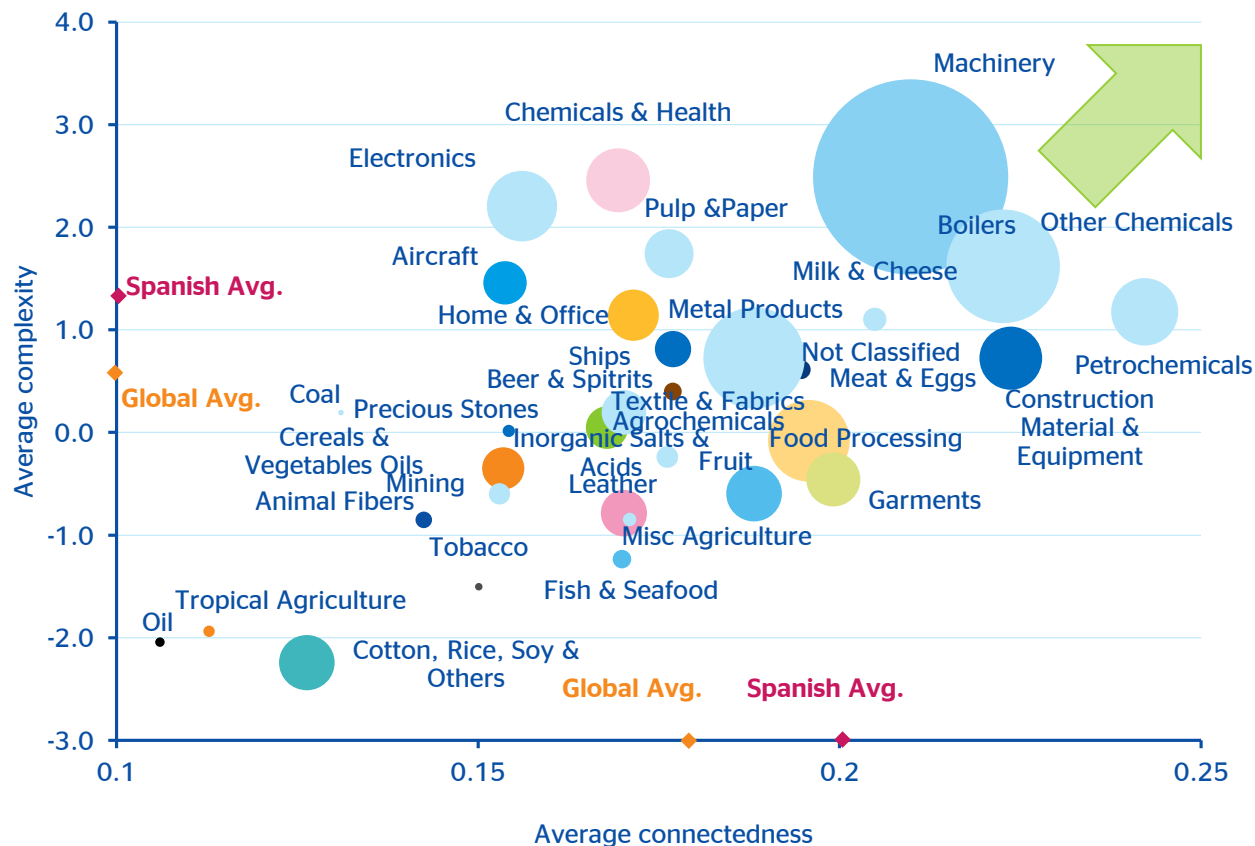
Source: Correa-López and Doménech (2012)



Internationalization challenges of the Spanish economy

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

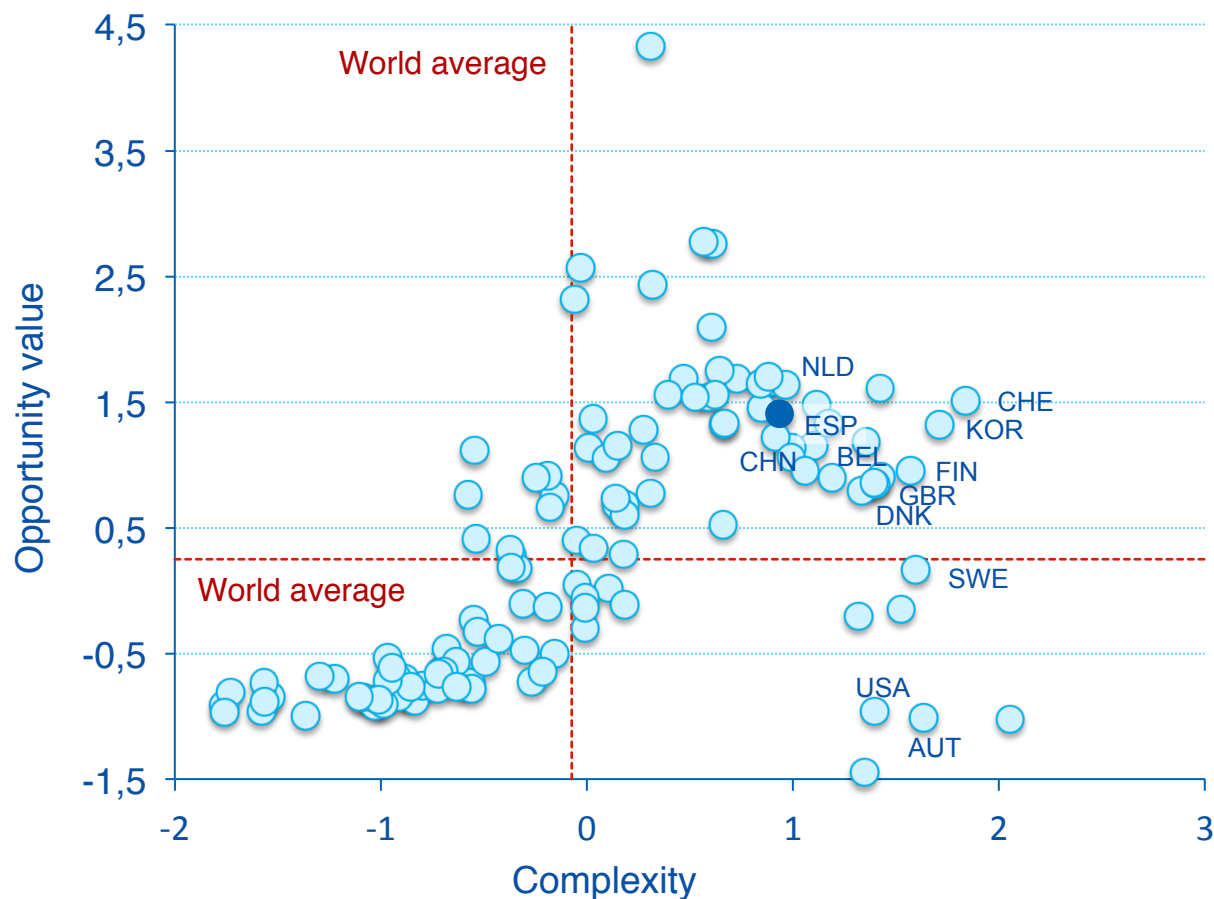
Source: Correa-López and Doménech (2012)



Internationalization challenges of the Spanish economy

Complexity and opportunity value, 2012

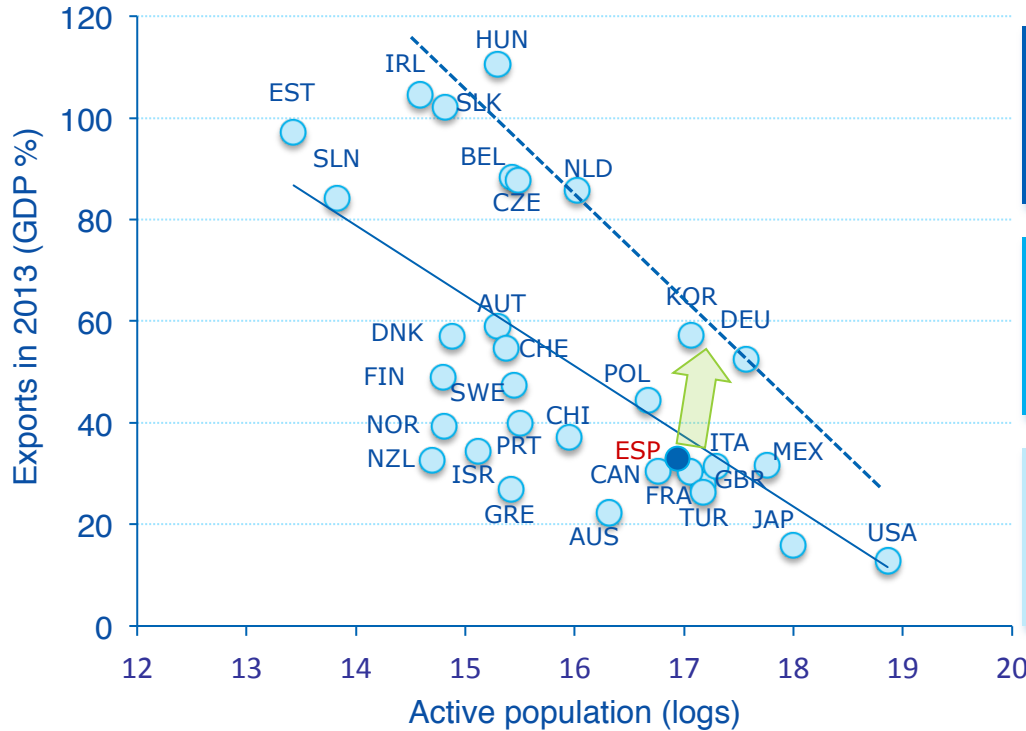
Source: Hausmann et al (2014)



Internationalization challenges of the Spanish economy

GDP share of exports and country size

Source: Andrés and Doménech (2015)



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

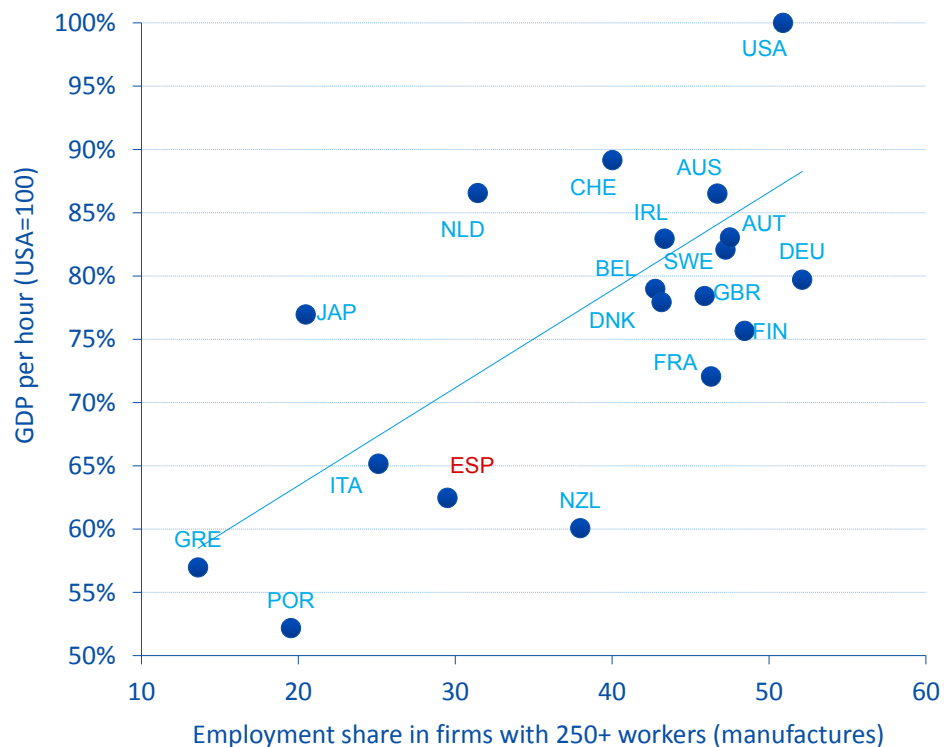
- Further advances in labor market reforms will be not enough without **better competition policies and regulations in product markets**, reduction of administrative burdens and lower barriers to internationalization
- Spain can take advantage of the globalization process **improving its position in 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

Source: Andrés and Doménech (2015) based on OECD *Entrepreneurship at a Glance* (2013)



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)

	1-9	10-19	20-49	50-249	250+
Manufacturing					
Spain	38,3	54,5	64,6	77,6	125,2
Germany	42,8	51,4	56,4	68,3	104,1
EU8	81,9	70,3	76,0	92,3	141,6
Services					
Spain	35,9	46,6	51,0	56,2	62,1
Germany	68,1	49,4	53,0	60,3	64,5
EU8	74,8	62,9	71,5	82,5	80,0

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)

	Manufacturing					Services					Construction				
	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+	1-9	10-19	20-49	50-249	250+
Spain	20,1	10,6	17,0	22,7	29,5	40,6	8,2	9,1	13,0	29,1	50,5	14,2	13,8	11,7	9,8
EU8	11,1	7,1	11,6	25,4	44,8	27,6	8,9	11,4	16,9	35,2	38,2	14,5	16,0	15,5	15,7
USA	7,7	6,6	17,9	16,9	50,9	10,9	7,6	12,6	16,7	52,2	25,6	15,2	27,3	16,4	15,5

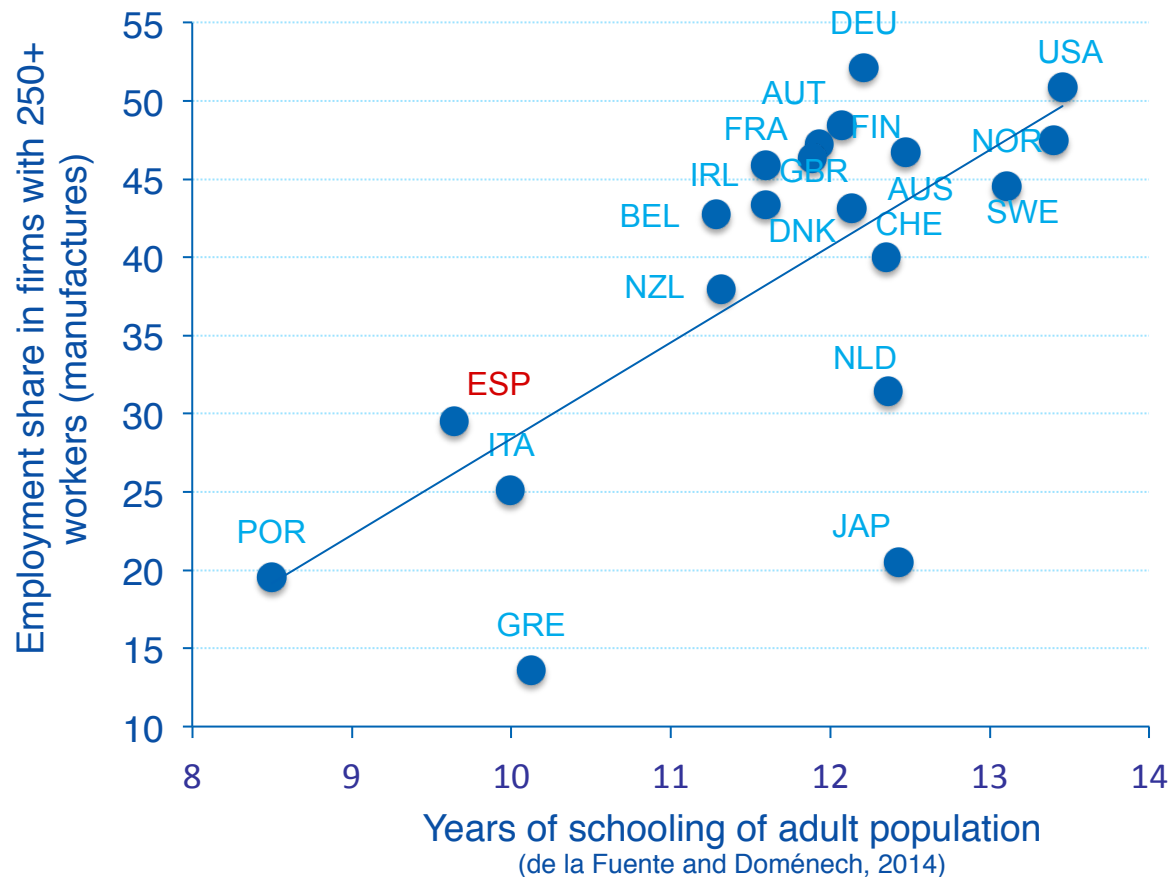
Causes of the relative small size of Spanish firms

- 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

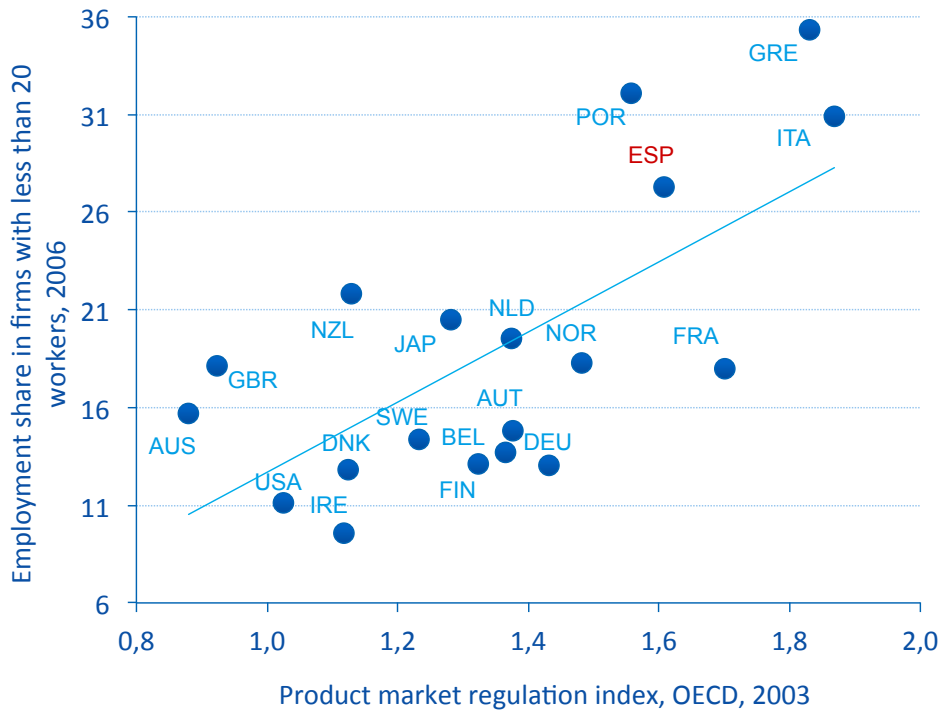
Source: Andrés and Doménech (2015)



Causes of the relative small size of Spanish firms

Firm size and product market regulations, OECD

Source: Cuerpo, Doménech and González-Calbet (2011)



The evidence in OECD countries shows that regulations may be a barrier to firm size growth

When competition is limited, the most efficient firms do not drive out the less productive ones

Selective regulations (in product and labor markets) may be a barrier to growth for large firms

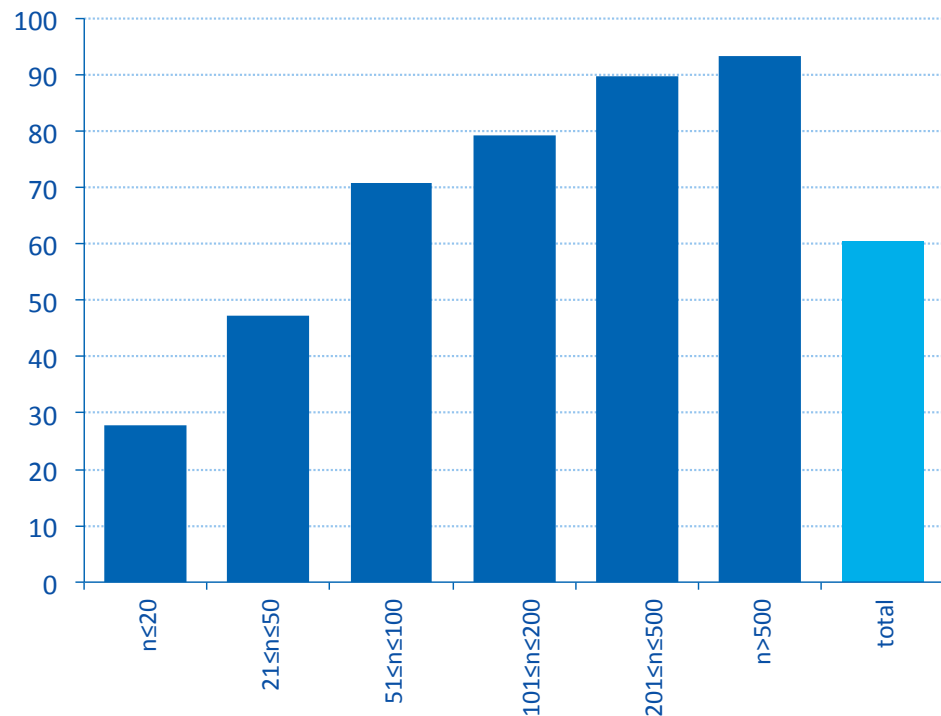
Main characteristics of large firms

- 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

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

Notes: See footnote to Table 2 in Correa-López and Doménech (2014).

Exporting firms display different characteristics when compared with non-exporting ones

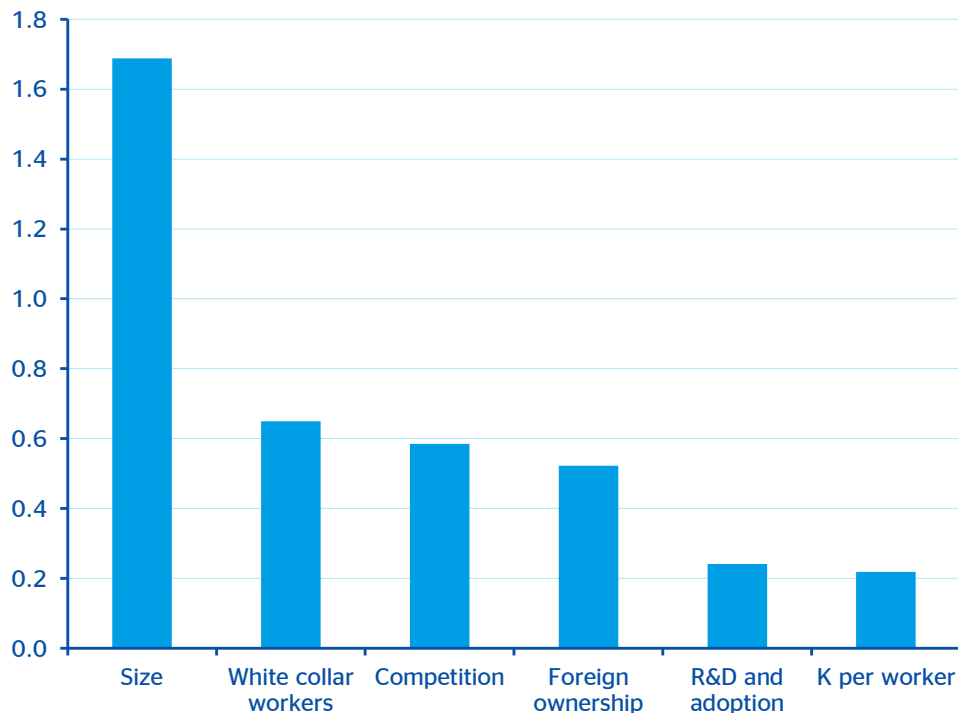
Larger size, higher productivity, greater innovation and higher human capital

More open to foreign investment

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)



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

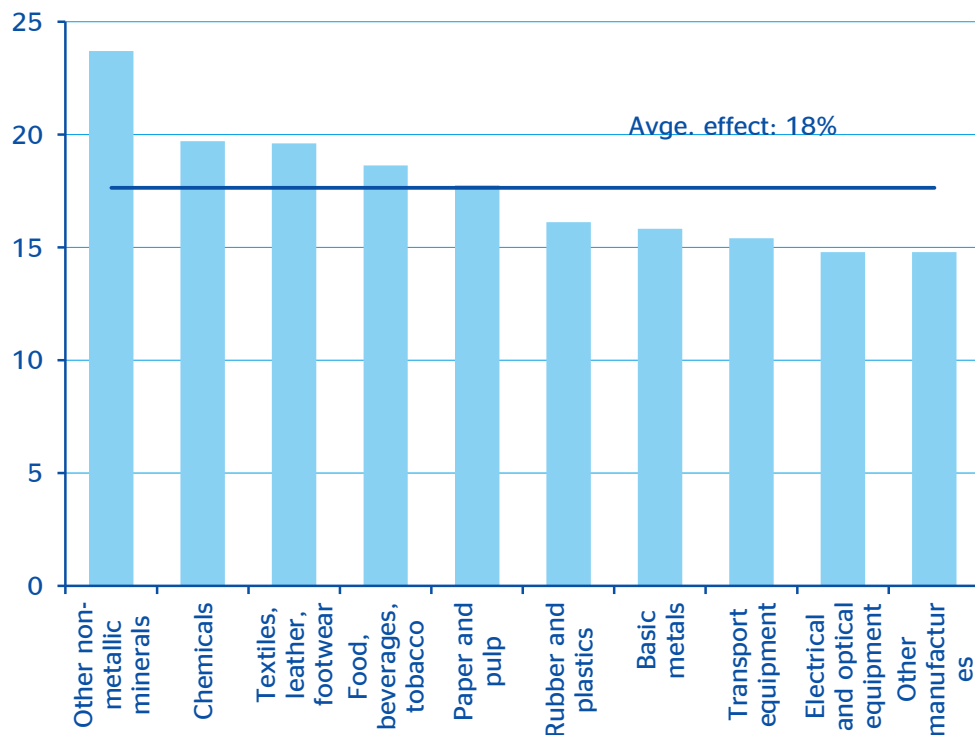
An increase of 10 employees in the median firm size (from 50 to 60 employees) would increase the probability of exporting by 1.69%

Other determinants are statistically significant but less economically relevant

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)



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

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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