

# KEY DETERMINANTS FOR BOOSTING INVESTMENT: THE GREEK CASE

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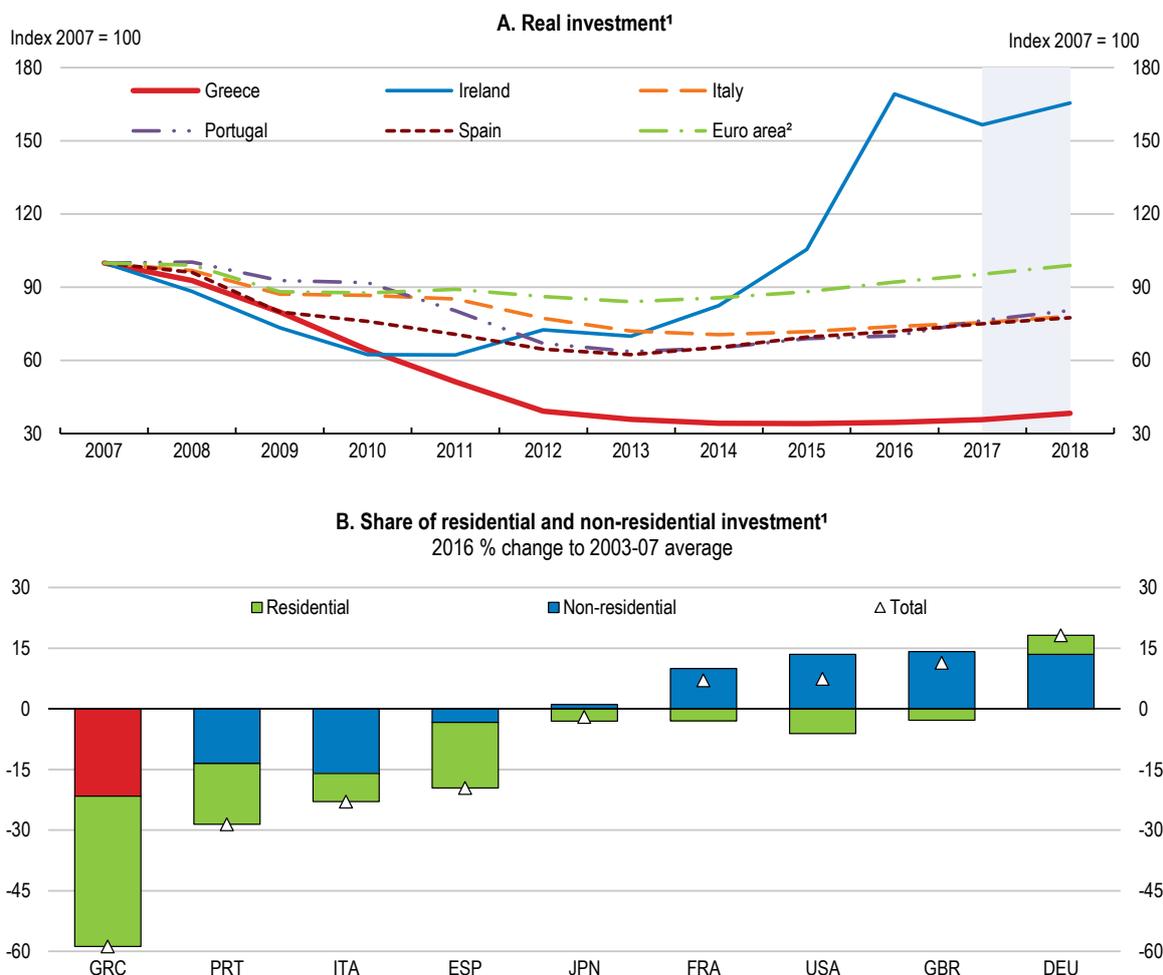
## **Abstract**

Aggregate investment has declined markedly since the start of the global financial crisis. Reviving investment and improving its quality is crucial to supporting the nascent recovery and raising living standards. This will hinge primarily on improving the business environment, by lowering product market regulations and enhancing the regulatory quality, so as to strengthen investment incentives, attract more FDI, and raise Greece's integration into global value chains. Other key policies involve further streamlining insolvency procedures, building an innovation system, overcoming problems in the banking sector and enhancing the quality of public investment through long term planning.

## Introduction

In Greece, the fall in real investment was larger and more prolonged than in other euro area countries. This large fall is attributable to both the residential and non-residential investment (Figure 1.1). In 2016 non-residential real investment was 35% below its 2003-2007 average while residential real investment was ~90% below it. The marked drop in residential investment reflects the disproportionate role it traditionally had in the Greek economy. Though Greece did not experience a housing boom in the years immediately preceding the crisis, residential investment (as a share of GDP) had been consistently higher than in most OECD countries for several decades before the crisis. Housing investment accounted for about half of total investment between 1995 and 2007, a much larger share of total investment than in other EU countries. The deep rooted perception of housing as a safe asset and the dearth of alternative investment opportunities in productive activities have contributed to this phenomenon, lowering the growth of the productive capital stock and labour productivity.

**Figure 1.1 Investment dropped more than elsewhere**



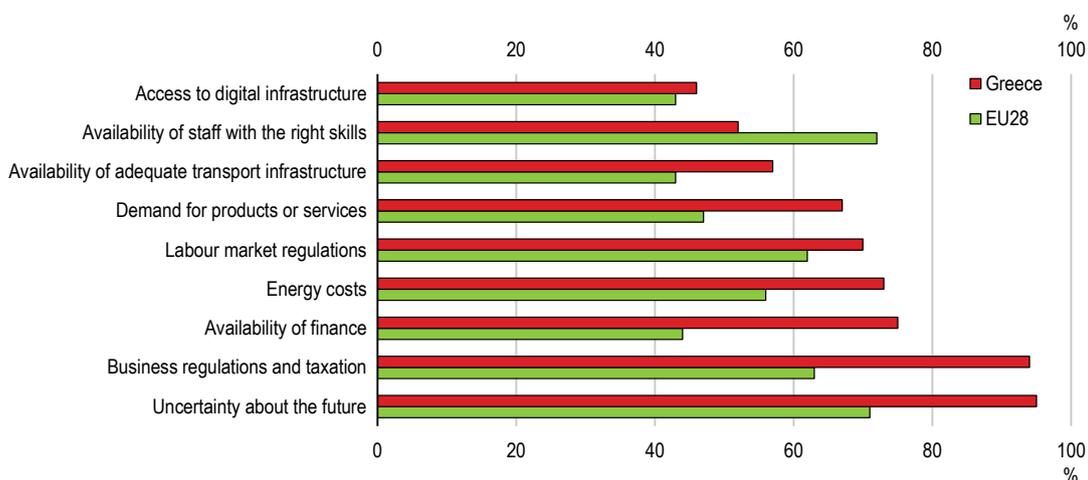
1. Real gross fixed capital formation.
2. Includes Euro area countries which are OECD members.

Source: OECD (2017), *OECD Economic Outlook: Statistics and Projections* (database).

Greece faces several barriers to raise investment. A recent survey, by the European Investment Bank (EIB 2017), reports that the high level of uncertainty, complex business regulation and taxation, lack of finance and energy costs are the most significant obstacles to raise corporate investment (Figure 1.2). Also, Greek firms report more often than companies in other EU countries inadequate transport infrastructure as an important barrier to investment.

**Figure 1.2 Obstacles to investment by businesses are high**

Share of firms reporting an obstacle to investment activities



Note: Based on the EIB Investment Survey 2017 that covers 12 500 firms including the whole range from small SMEs with more than 5 employees to larger corporates across the EU 28.

Source: EIB (2017), *The annual EIB Group Survey on Investment and Investment Finance (EIBIS)*.

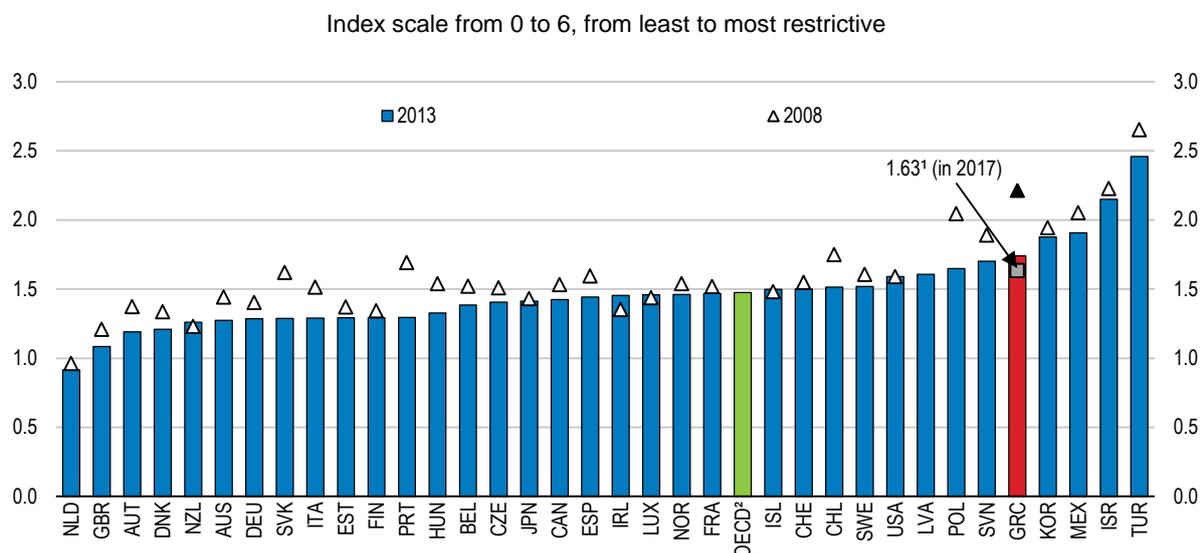
Reviving investment will therefore require policy actions spanning different areas. This paper focuses on policies to lower product market regulation and improve regulatory quality – to enhance competition, transparency and attract additional foreign direct investment; accelerating insolvency procedures – to speed up the reorganisation of struggling but still viable firms and the liquidation of those that are not viable any longer – boosting innovation and investment in KBC – to raise productivity and switch to higher value added products; restarting lending to firms by overcoming problems in the banking sector. Finally, this chapter focuses on ways to enhance public investment to improve the quality of infrastructure.

### Lowering product market regulation and enhancing regulatory quality

Since the start of the crisis, cuts in barriers to entry, trade and investment and reduced state control have made Greece’s product markets more open to competition (Figure 1.3). Between 2008 and 2013 reduced barriers to trade and investment contributed most to lessening product market regulations. A preliminary and conservative assessment of reforms implemented since 2013 suggests that product market restrictions have eased further. The drop in PMR index might not reflect all the progress made since 2013 as the PMR index covers mostly horizontal regulations while the product-market reforms passed concern mostly sector specific regulations. Despite this progress, Greece’s business environment is among the least friendly among OECD

countries. This is corroborated by the World Bank Doing Business indicator, which improved between 2013 and 2017.

**Figure 1.3 Product market regulation has improved but remains above most OECD countries**



1. Preliminary calculation of the PMR reforms since 2013.

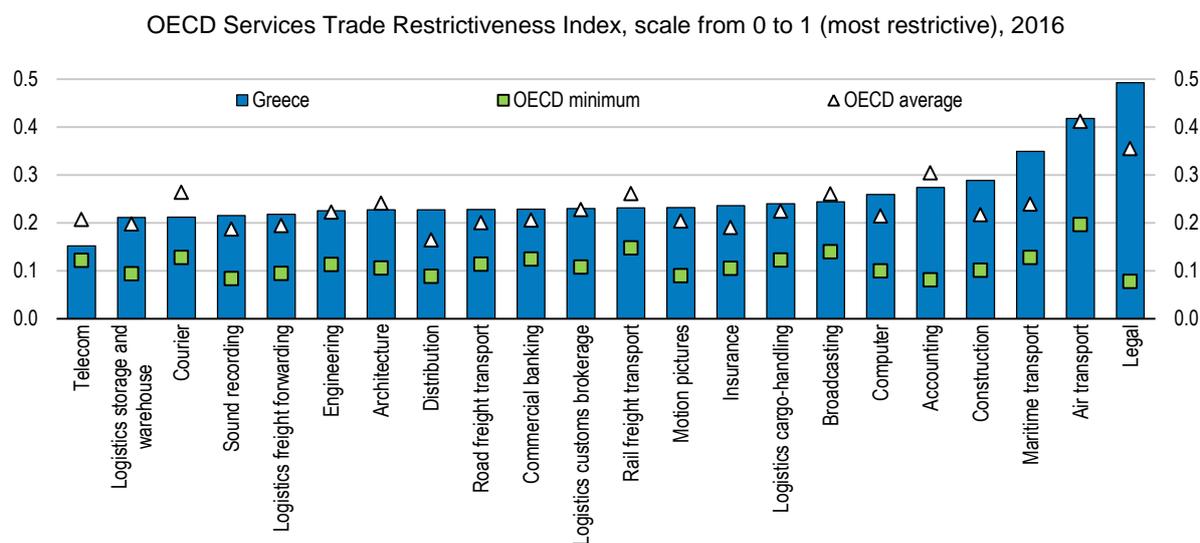
Source: OECD (2017), *Product Market Regulation Database*.

Regulatory restrictions in the service sector can be especially damaging. In Greece, the service sector accounts for about 80% of GDP, above the OECD average (about 74%). Also, services account for about 40% of Greece’s total exports in gross terms and more than 70% in value added terms. Regulated professions accounted for about 30% of total private sector employment in 2010. Close to 18% of all employees in Greece were working in jobs that required a license, while about 13% of all employees were working in strictly regulated professions where regulations impose additional administrative licenses and entry and conduct restrictions (Athanassiou *et al.* 2015).

Since 2010, Greece undertook an extensive legislative reform to streamline regulation of and ease entry into a large number of regulated professions. The reform was complex and implementation followed the recommendations of the Hellenic Competition Commission (OECD 2013; KEPE 2015). This resulted in opening up to competition 75% of the 350 regulated professions in Greece, through various measures (e.g. increase in the allowed number of notaries and reduction in notary fees; elimination of unfair restrictions for access to the engineering profession; relaxation of rules for the establishment of new pharmacies).

As highlighted in previous Surveys (OECD 2013; OECD 2015), the liberalisation of regulated professions could go further. The OECD Service Trade Restrictiveness (STRI) index, which captures restrictions to international trade in services, shows that in Greece more than half of the 22 sectors considered have higher restrictions than the OECD average (Figure 1.4).

**Figure 1.4 Service trade restrictions can be lowered further**



1. The index includes regulatory transparency, barriers to competition, other discriminatory measures, restrictions on movement of people and restrictions on foreign entry. It is calculated on the basis of the Service Trade Restrictions Index (STRI) regulatory database over the 35 OECD Members, Brazil, China, Colombia, Costa Rica India, Indonesia, Lithuania, Russia and South Africa. The STRI database records measures on a most-favoured-nations basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people).

Source: OECD (2017), "Service Trade Restrictions Index by services sector" in *OECD Industry and Services Statistics* (database).

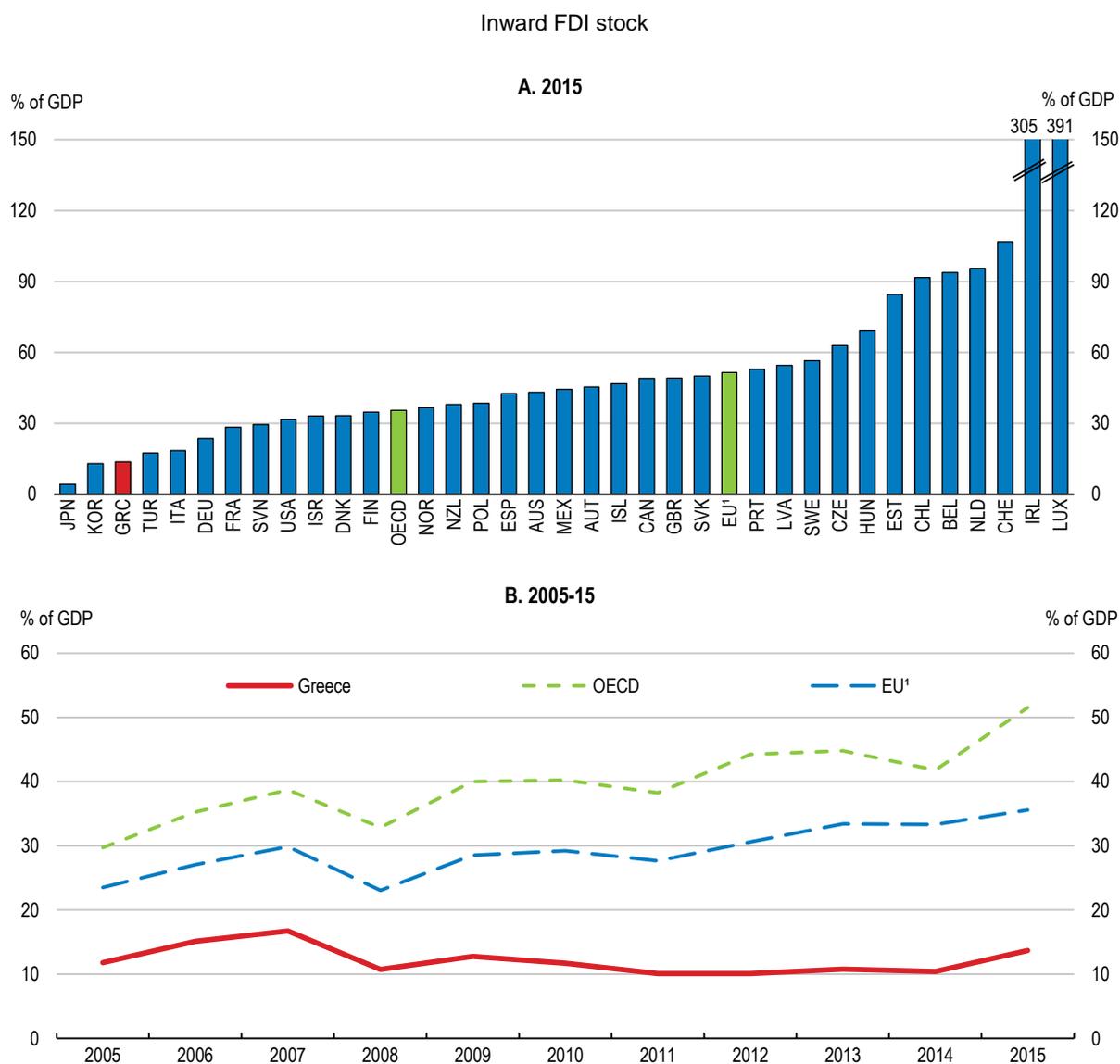
Relative to the OECD average, Greece performs especially well in telecommunications and postal services. Legal, construction and maritime transport services are instead the three sectors with the highest restrictions relative to the OECD average (Fig 1.4). For instance, in legal services, EU nationality is required to obtain a license to practice domestic law, only licensed lawyers can own shares in law firms and board members and managers of law firms must be licensed lawyers. In construction services, there are discriminatory measures related to public procurement processes against potential bidders and the State controls two major firms in this sector. In maritime transport services, foreigners cannot own more than 49% of local maritime transport companies, the cabotage market is closed for non-EU registered vessels (as in all EU countries). Moreover, majority ownership by Greek or EU nationals is a precondition for the registration of vessels under the national flag. Also, certain technical agreements are exempt from competition law while some services are reserved for specific entities at ports (OECD 2016).

## Boosting foreign direct investment and integration in global value chains

Foreign direct investment and integration in GVCs are low. Greece attracts little FDI and is poorly integrated in GVCs and is thus missing out on the benefits from participating in international markets. In 2015, the Greek inward FDI stock was 14% of GDP, much lower than the OECD average and in other small open economies, such as Slovenia, Spain, Portugal (Figure 1.5, Panel A), though in 2015 it started to improve (Figure 1.5, Panel B). The low level of FDI stock predates the financial crisis, indicating structural obstacles to attracting FDI. Though improving,

the degree of integration in GVCs is also lower than in the peer countries (Figure 1.5). This is true especially for the share of domestic value added embodied in foreign final demand (i.e. the exports of value added) (Figure 1.5, Panel A).

**Figure 1.5 Greek inward FDI stock is low but recently it has improved**



1. EU25 for data between 2004 and 2006, EU27 for data between 2007 and 2012 and EU28 from 2013.

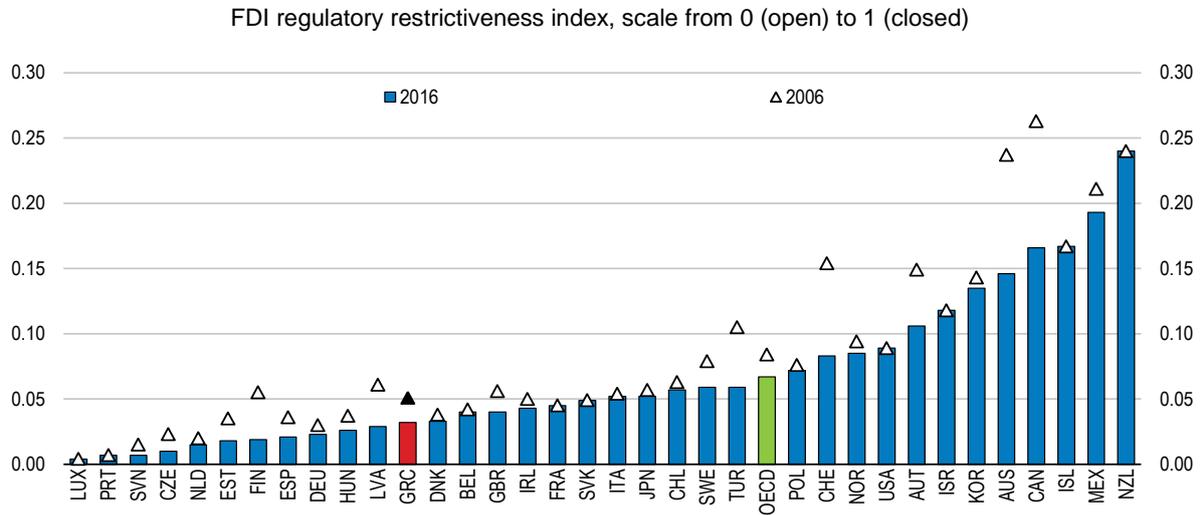
Source: OECD (2017), "FDI statistics according to Benchmark Definition 4th Edition (BMD4): Foreign direct investment: main aggregates", *OECD Globalisation Statistics* (database).

***The poor business environment hinders FDI and integration in global value chains***

Overall, FDI regulatory restrictions are low compared to other OECD countries. Greece ranks 12<sup>th</sup> among 35 OECD countries on the OECD’s FDI Restrictiveness Index (Figure 1.6). Between 2006 and 2016, Greece lowered FDI restrictions, though most progress took place before 2011. The

most significant remaining restrictions concern foreign equity (for mining, quarrying and oil extraction), and screening and approval mechanisms (for fisheries, air and maritime transport, radio and TV broadcasting, accounting and audit, media, tertiary education and business services).

**Figure 1.6 FDI regulatory restrictions are low compared to other OECD countries**



*Note:* It measures statutory restrictions on foreign direct investment and it gauges the restrictiveness of a country's FDI rules by looking at the four main types of restrictions on FDI: foreign equity limitations; discriminatory screening or approval mechanisms; restrictions on the employment of foreigners as key personnel and other operational restrictions. The overall restrictiveness index is the average of sectoral scores.

*Source:* OECD (2017), *OECD FDI Regulatory Restrictiveness Index Database*.

Attracting FDI in sectors having a relative comparative advantage (RCA) would be especially beneficial for Greece. Empirical research suggests that FDI offers the potential of raising the quality of exports thereby enhancing RCA (Harding and Javorcik 2012). Policies aiming at attracting FDI in comparative advantage sectors could then accelerate GVCs integration. Box 1 shows that Greece has a comparative advantage in the food sector, agricultural products, fuels, minerals and pharmaceuticals. Policies to attract FDI in these sectors could entail incentives to participate in international fairs and fast track approval process for instance.

### Box 1. Identifying sectors with comparative advantage in the Greek economy

As an indicator of sectoral competitiveness, the Revealed Comparative Advantage (RCA) or Balassa Index (Balassa, 1965) is used. It is calculated for fourteen commodities exported from Greece to the rest of the world, with annual data from 1980 using the following formula:

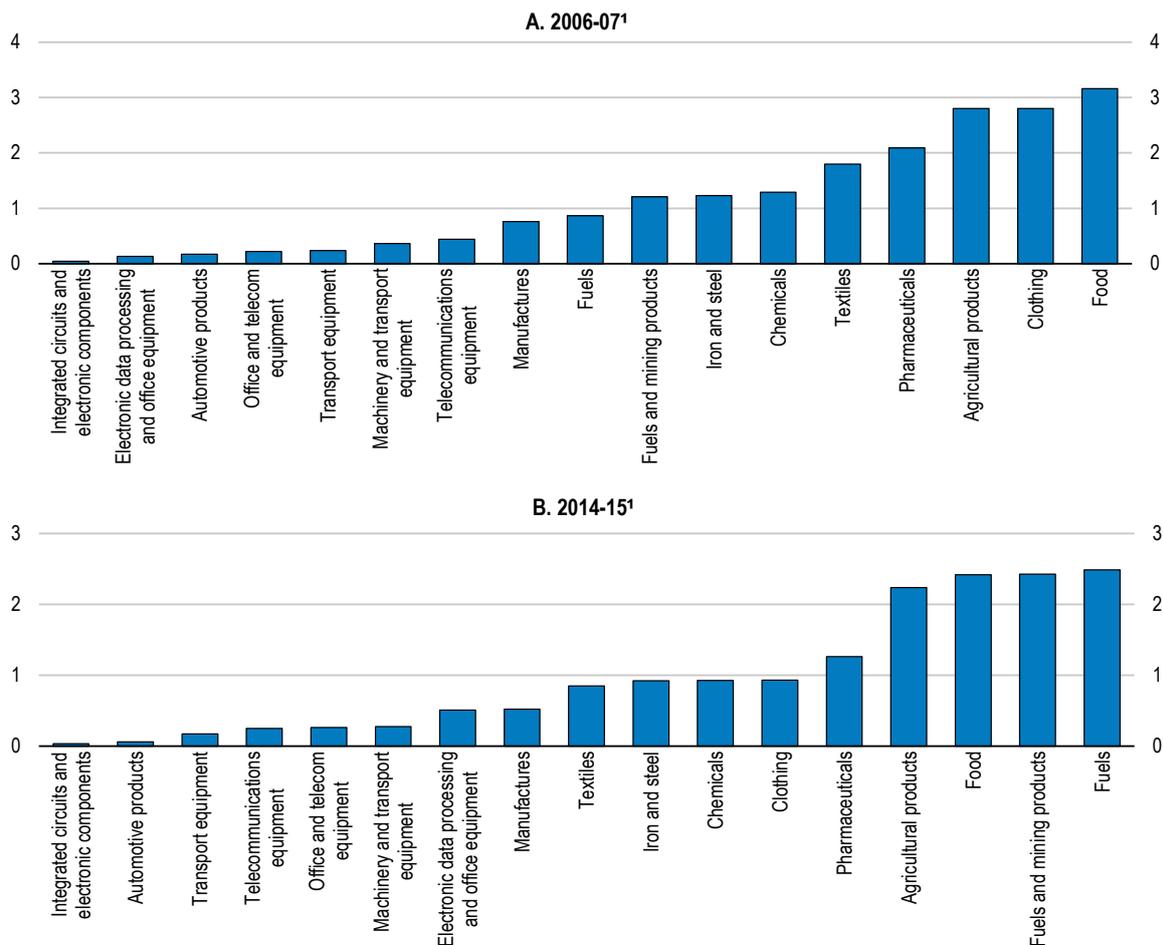
$$RCA_{ij} = \frac{X_{ij} / \sum_i X_{ij}}{\sum_j X_{ij} / \sum_i \sum_j X_{ij}}, \quad (1)$$

Where  $X_{ij}$  is the value of country's  $j$  exports of commodity  $i$ . The numerator calculates the share of exports of a specific commodity over total exports for Greece. The denominator calculates the share of exports of a specific commodity over total world exports.

An RCA index value larger than one means that the value of the specific commodity exports as a share of the country's total exports is larger than the corresponding ratio for the rest of the world. Based on the historical values of RCA index, commodities can be grouped in three categories: 1) Products and services on which Greece has historically had a comparative advantage and RCA indices constantly well above 1; 2) Commodities with RCA indices around 1, i.e. products which Greece has been exporting with a slight comparative advantage; 3) Commodities with very small shares in Greece's exports compared to the rest of the world, and RCA indices constantly below 1. The chart below shows the RCA of Greek industries (Figure 1.7).

**Figure 1.7 Revealed comparative advantage in Greece**

A higher value of the index indicates a greater comparative advantage



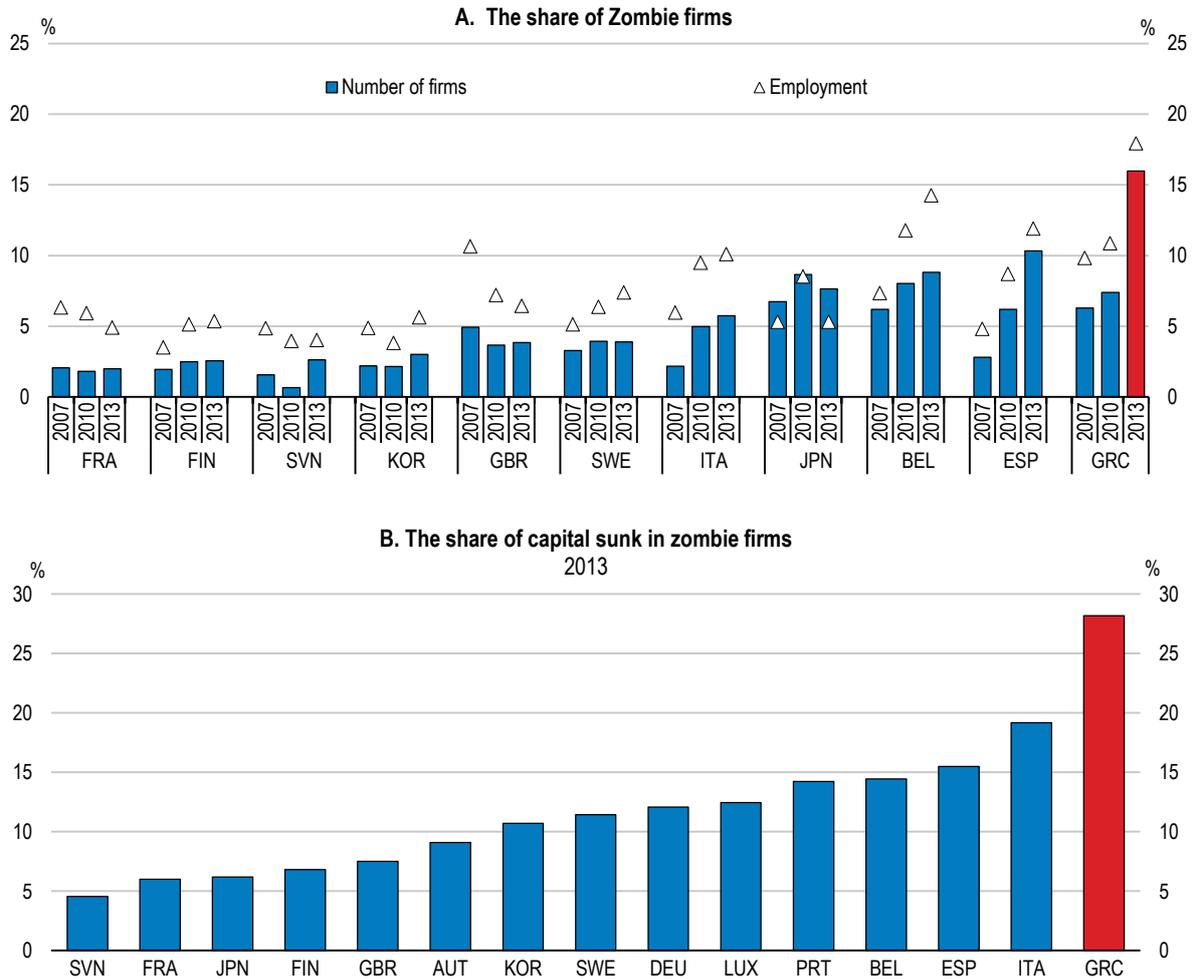
1. Unweighted average.

Source: Authors' calculations based on data on merchandise trade by commodity in the annual macro-economic database of the European Commission (AMECO).

## **Streamlining insolvency procedures and strengthening contract enforcement**

Long and costly insolvency procedures trap capital and other resources in low productive firms, reducing allocative efficiency and depressing domestic investment. Evidence suggests that a nontrivial share of the collapse in aggregate business investment in Greece is attributable to the survival of firms having persistent problems meeting interest payments, the so-called zombie firms (Adalet McGowan *et al.* 2017). As of 2013, Greece had the highest share of capital and employment trapped in zombie firms. This was true also in 2003, suggesting persistent problems in restructuring insolvent firms or making them exit the market (Figure 1.8). A high share of capital and employment trapped in zombie firms signals high resource misallocation, lowering productivity. Moreover, it weakens incentives for non-zombie firms and financial institutions to invest and innovate (congestion effect), while also raising the cost of capital and labour through their artificial scarcity. Empirical evidence from OECD countries indicate that reducing barriers to corporate restructuring can contribute to significantly reduce the share of capital sunk in zombie firms (Adalet McGowan *et al.* 2017), thus directly reducing resource misallocation and increasing productivity. Such reforms can also raise investment by non-zombie firms by reducing congestion.

**Figure 1.8 A large share of employment and capital is trapped in zombie firms**

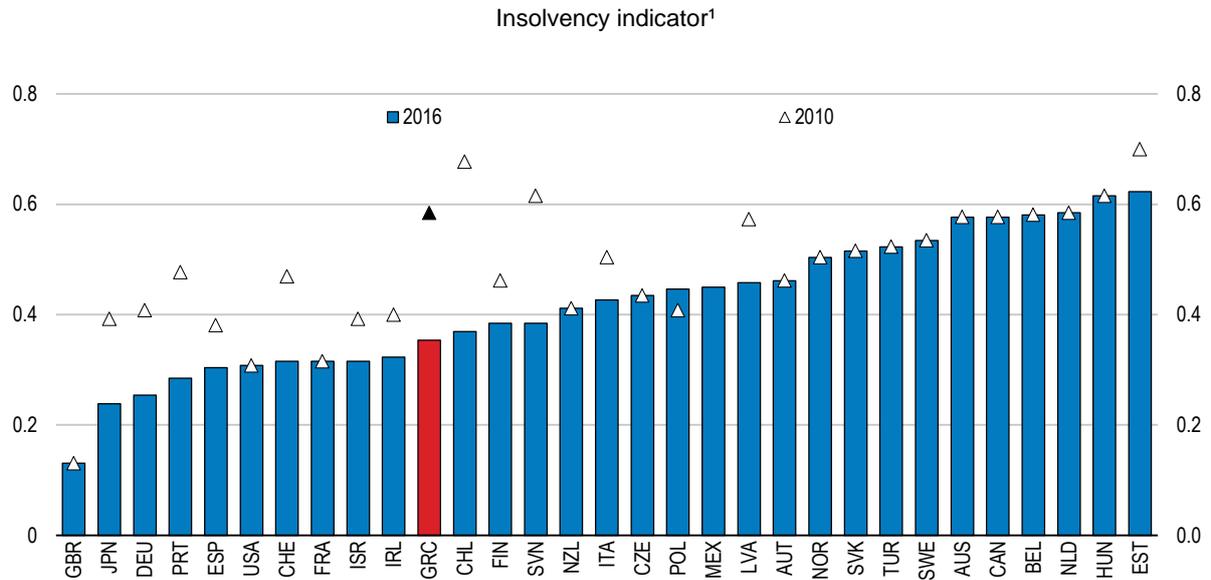


Note: Zombie firms are firms aged 10 years or older and with an interest coverage ratio less than 1 over three consecutive years. Capital stock and employment refer to the share of capital and labour sunk in zombie firms. The sample excludes firms that are larger than 100 times the 99th percentile of the size distribution in terms of capital stock or number of employees.

Source: Adalet McGowan, M., D. Andrews and V. Millot (2017), "Insolvency regimes, zombie firms and capital reallocation", *OECD Economics Department Working Papers*, No. 1399, OECD Publishing, Paris.

Greece's Bankruptcy Code governs the legal framework of insolvencies. Currently there are four types of insolvencies: pre-bankruptcy rehabilitation; bankruptcy-liquidation; bankruptcy-reorganization; special administration (fast track liquidation; if the procedure does succeed within 12 months, a standard bankruptcy procedure follows). Numerous changes to the insolvency framework during the crisis have aimed at accelerating bankruptcies, enhancing pre-bankruptcy rehabilitation and plans as well as facilitating the discharge of entrepreneurs (i.e.: so-called "second chance"). These changes are consistent with the 2016 EU directive on Preventive Restructuring, Second Chance and Efficiency Measures and 2014 EC recommendation on A New Approach to Business Failure and Insolvency.

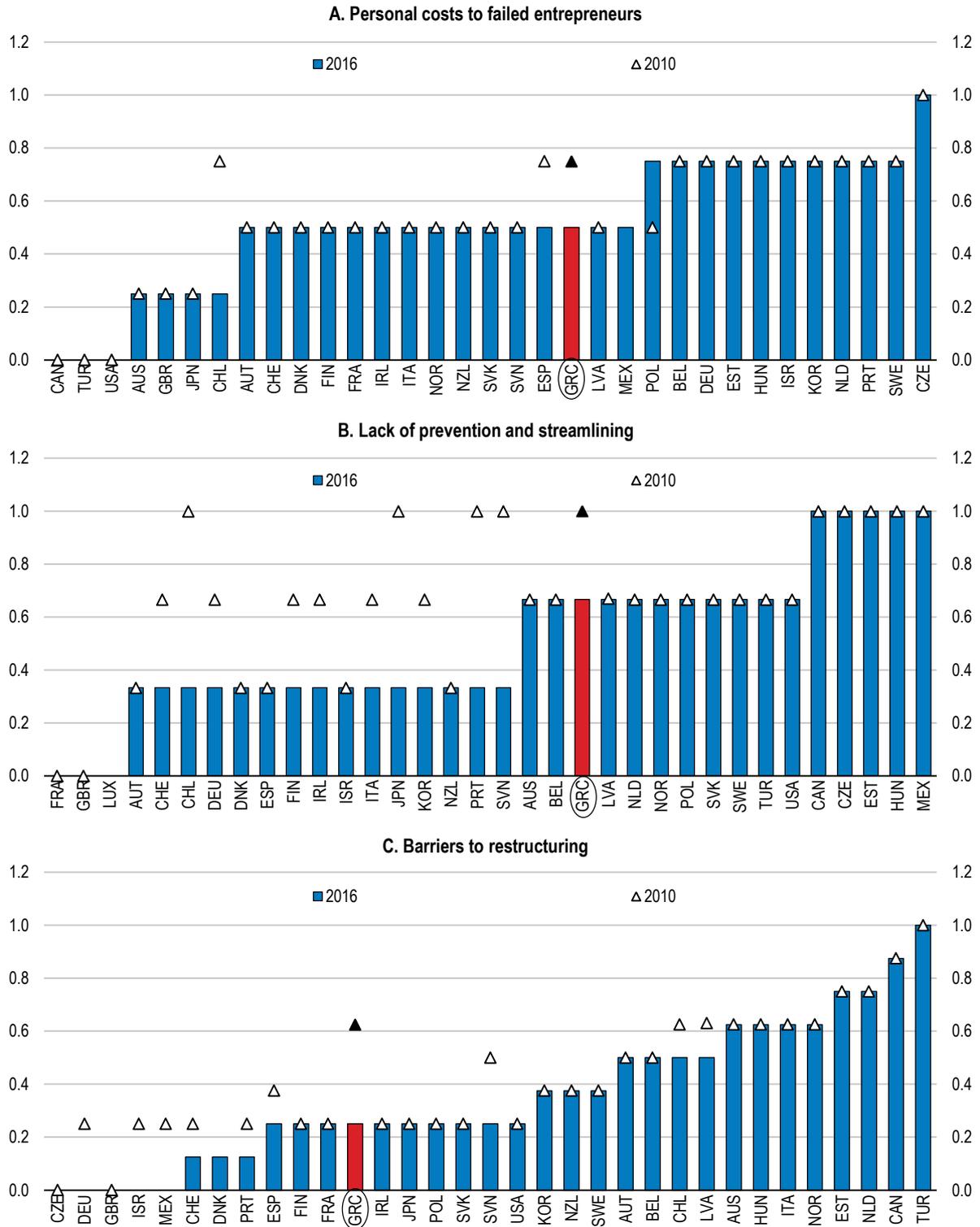
**Figure 1.9 Greece's insolvency framework has improved**



1. The indicator is a composite that aggregates 13 insolvency indicators across 4 dimensions: treatment of failed entrepreneurs; prevention and streamlining; restructuring tools; and other factors. Calculations are based on the OECD questionnaire on insolvency regimes which collected specific information (mostly in the form of Yes/No questions and numbers) about personal and corporate insolvency regimes for 35 OECD member and 11 non-member countries.

Source: Adalet McGowan, M., D. Andrews and V. Millot (2017), "Insolvency regimes, zombie firms and capital reallocation", *OECD Economics Department Working Papers*, No. 1399, OECD Publishing, Paris.

**Figure 1.10 Greece's insolvency framework has improved in all areas of OECD's indicator of insolvency regimes**

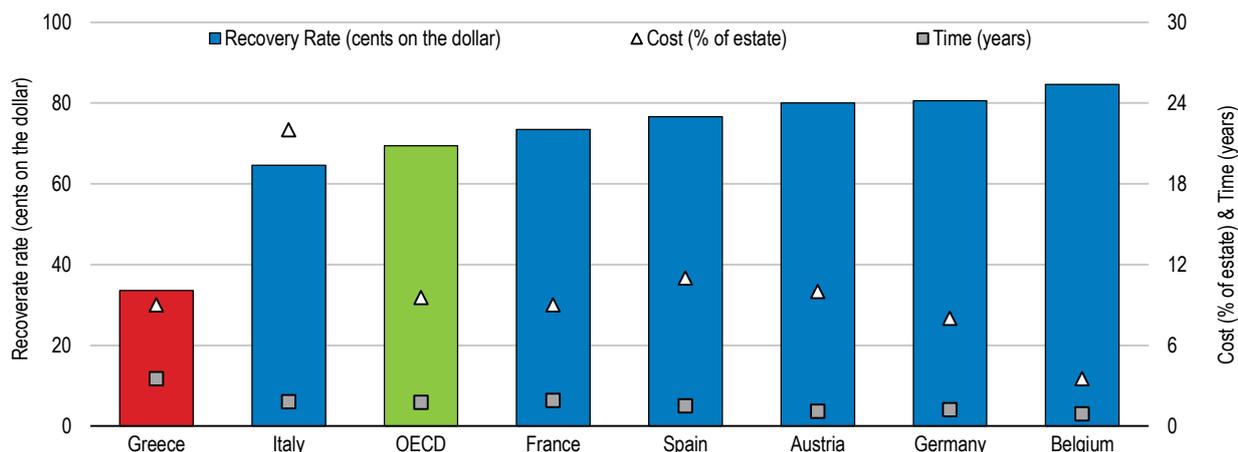


Note: Calculations based on the OECD questionnaire on insolvency regimes.

Despite this progress, recovery rates remain low and insolvency proceedings slow compared to most OECD countries (Figure 1.11). For the stylised insolvency case considered by the World Bank's Doing Business index, the average recovery rate is just 35.6%, about half the level of the OECD average. Also, insolvencies last on average 3.5 years, more than double the time of an average OECD country.

**Figure 1.11 Insolvency proceedings in Greece are slow and the asset recovery rate is low**

2018<sup>1</sup>



*Note:* Time for creditors to recover their credit is recorded in calendar years and the period of time is measured from the company's default until the payment of some or all of the money owed to the bank. Potential delaying tactics by the parties, such as the filing of dilatory appeals or requests for extension, are taken into consideration. The cost of the proceedings is recorded as a percentage of the value of the debtor's estate. The cost is calculated on the basis of questionnaire responses and includes court fees and government levies; fees of insolvency administrators, auctioneers, assessors and lawyers; and all other fees and costs. The recovery rate is calculated based on the time, cost and outcomes of insolvency proceedings and is recorded as cents on the dollar recovered by secured creditors. The calculation takes into account whether the business emerges from the proceedings as a going concern or the assets are sold piecemeal. The costs of the proceedings are deducted. The value lost as a result of the time the money remains tied up in insolvency proceedings is also deducted. The recovery rate is the present value of the remaining proceeds.

1. Reference year of database. The database in 2018 was the latest data collection completed in June 2017.

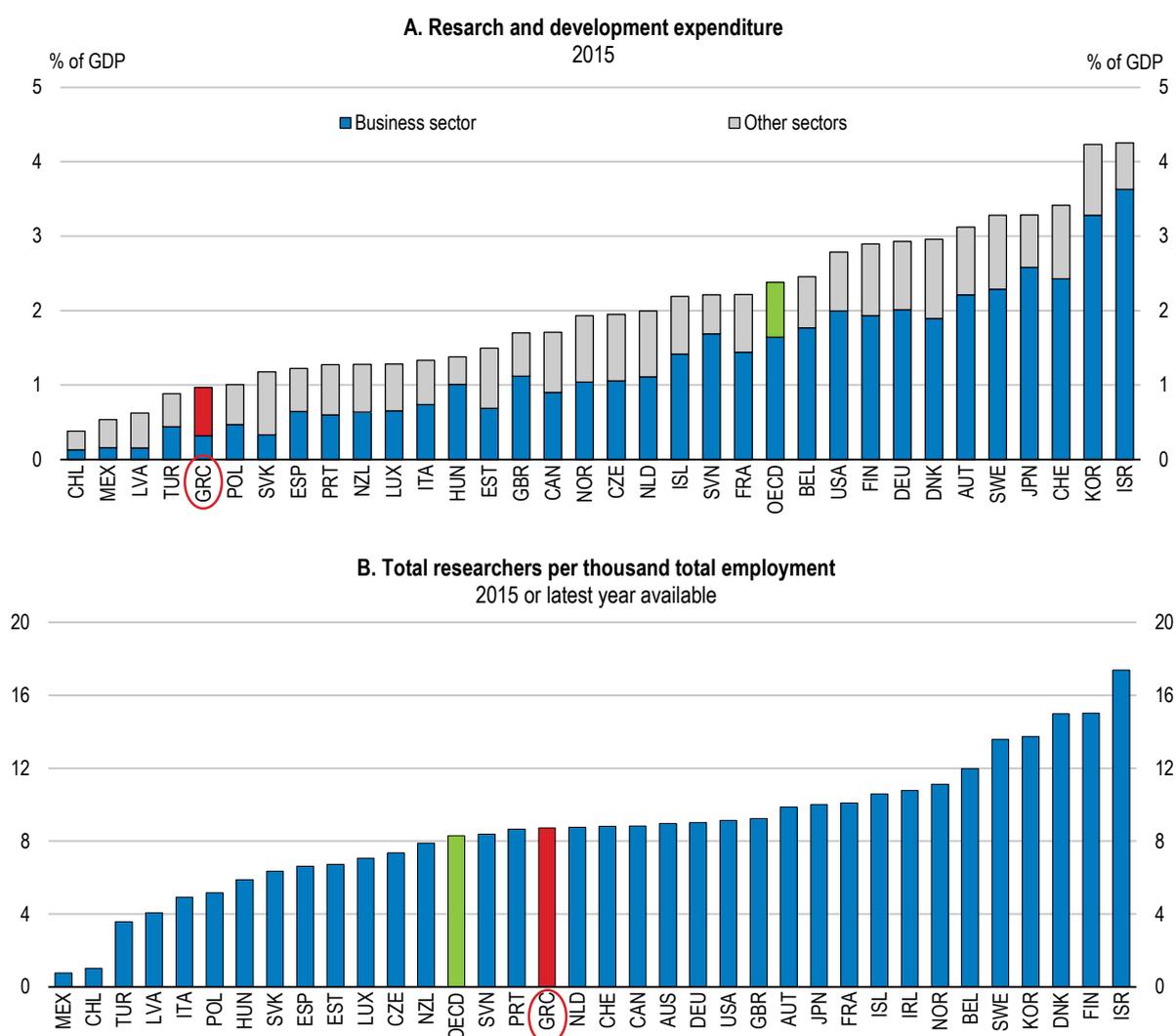
Source: World Bank (2017), *Doing Business 2018* (database).

In countries displaying high litigation rates such as Greece, policies should primarily aim at shortening court cases. The digitalisation of the justice system is an important and thus far an underutilised tool in Greece. Across countries, the budget devoted to digitalisation is associated with a shorter trial length (Palumbo *et al.* 2013). The National Strategic Reference Framework 2014-2020 envisages the digitalisation of judicial files and records. Digital technologies can support case-flow management through creation and maintenance of records concerning case processing and schedules, structuring management of pre-trial, trial, conferences, and hearings; flagging cases for staff and judge attention, enabling verbatim records of court proceedings, and providing needed management information and statistics. Finland's Insurance Court provides a successful example of applying case-flow management along with an advanced time-frame alarm system enabled by digital technologies (Pekkanen *et al.* 2015).

## Building an innovation system

According to the European Innovation Scoreboard 2017, Greece is a moderate innovator. Greece lags behind the OECD average in both business and government spending on R&D activities, which amount to 0.28% and 0.54% of GDP, respectively. Funding from abroad accounted for 13.2% of gross domestic expenditure on research and development (GERD) in 2014, with the EU being the most important external funder of R&D activities. The number of researchers in Greece is above the OECD average. Thus, research productivity in terms of the number of patents per researcher and per R&D spending is low (Figure 1.12). Greece's SMEs have lower capacity than their European peers to upgrade their technology (NBG 2016).

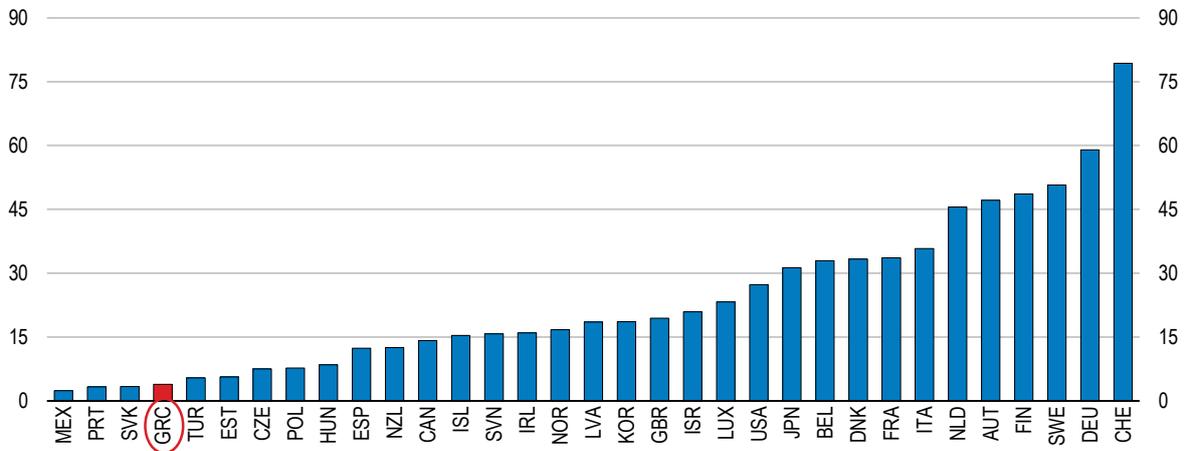
**Figure 1.12 Research and development expenditure is among the lowest in the OECD**



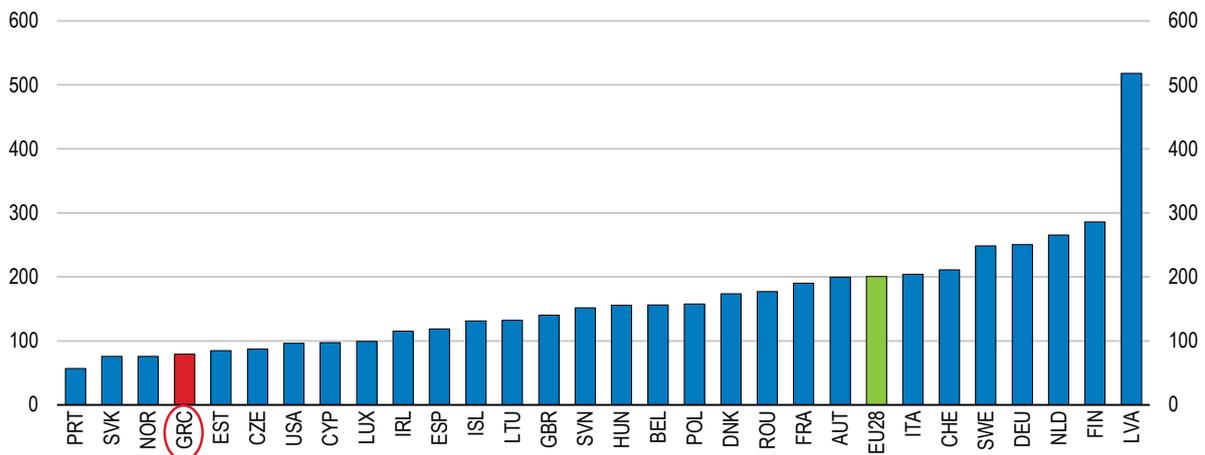
Source: OECD (2016), *OECD Main Science and Technology Indicators* (database) and OECD (2017), *OECD Science, Technology and R&D Statistics* (database).

**Figure 1.13 Research productivity is low**

**A. Patent applications to the EPO<sup>1</sup> per 1000 researchers**  
2014 or latest year available<sup>2</sup>



**B. Patent applications to the EPO<sup>1</sup> per billion euro of expenditure on R&D**  
2014 or latest year available



1. European Patent Office (EPO).

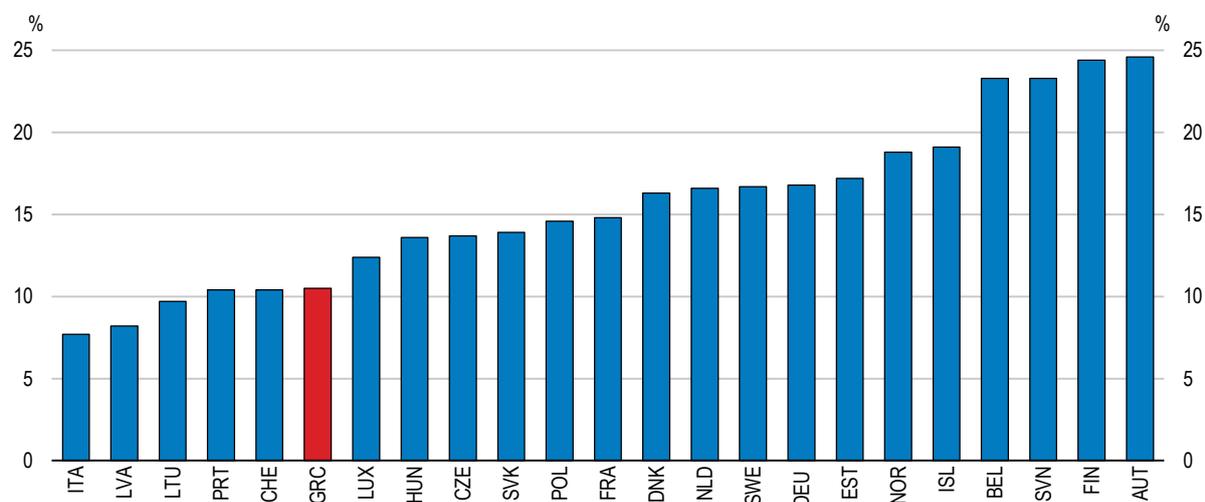
2. 2013 for Latvia, Iceland and the Slovak Republic. 2013 for Canada and Mexico and 2012 for Israel for the number of researchers only, due to lack of the data. For Switzerland, the number of researchers in 2014 is estimated based on available data in 2012 and 2015.

Source: OECD (2017), *OECD Main Science and Technology Indicators* (database) and Eurostat.

Connections between research centres and industry remain a challenge in Greece (Figure 1.14). Co-operation and financing of, mostly, public research centres and universities by the private sector face stiff resistance. In general, systematic data on scientific research are missing. The National Research and Innovation Strategy for Smart Specialisation 2014-20 was introduced in 2014 as the successor of the National Strategic Plan for Research and Development 2007-13. The new strategy aims at promotion of links between research and industry and accelerates the dissemination of innovation. According to the strategy, by 2020, GERD is expected to amount to 1.2% of GDP. The 2016 law establishing state aid schemes for private investments provides financial incentives to boost R&D and foster collaboration between industry and R&D centres to these objectives.

**Figure 1.14 Co-operation with higher education or research institutions in innovation is low**

The share of firms cooperating in research in all product and/or process-innovating firms, 2012-14



*Note:* International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns.

*Source:* Eurostat (2016), Community Innovation Survey (CIS) 2014.

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# The Impact of Chinese Investment in Piraeus Port on Greece during the Debt Crisis from 2008 – 2018.

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**Abstract:** The sovereign debt crisis faced by Greece in 2007 -08 has been one of the worst economic/ financial and political catastrophes to have hit the country. Selling off its state assets/ privatization has been the main proposal of Greece's creditors to make ends meet during the financial crisis. One of the most significant investment in Greece is undoubtedly the Chinese investment through COSCO on the port of Piraeus. This can be understood by studying the Belt and Road Initiative by China. Overall, the Chinese investment in Piraeus is proving to be successful. Today Piraeus is the fastest growing port in the world and China intends to make it the largest port in the Mediterranean. While COSCO's involvement in Piraeus has the potential to strengthen the Greek economy and increase trade with China, there is also the risk of Chinese government having leverage over Greek government policies on areas of strategic and geo political significance to China.

## **Background: The Greek crisis, austerity and investments from outside EU.**

The global financial crisis that erupted in 2007 hit several countries around the world and Greece was one of the countries that was severely affected. The magnitude of the crisis was so extensive that it lasted longer than the Great Depression in the United States.

Greece is a country characterised by high debt level, budget deficit, low competitiveness and an unstable political environment and so the crisis in Greece has been developing for decades and was exacerbated by the impact of the crisis in 2007. What began as an economic crisis in Greece, spread to other European countries and grew to become a Euro Zone crisis. The hefty public debt in Greece threatened the banking sector which worsened the crisis and the possibility of Greece's bankruptcy would translate to the failure of the EU (European Union), to protect its member country. As a result Greece was the first country in the Euro Zone to be rescued and at a historical scale. This was followed by International credit rating agencies downgrading Greece's status which caused a steep decline in investments. From the period from 2010 to 2018, the EU, ECB (European Central Bank and the IMF (International Monetary Fund), collectively known as TROIKA was joined to bail out the country with a combined total of EUR 310 Billion (Ozturk & Sozdemir: 2015). This however was anything but devastating to the Greek economy due to its cut throat austerity measures and lack of effective debt restructuring policies, and saw a rise in corruption and tax evasion and subsequent reduction in the competitiveness and general growth of the economy (Mavridis: 2018).

It's important to understand that historically, Greece is country reliant on external financing and since its independence in 1829, has defaulted four times on its external creditors leading to both economic and political consequences. A recurring outcome of the defaults have been extended and heavy external political interference to insure the repayment of the bail out loans, which leading up to the crisis Greece faced recently is nothing new in Greek history. Such crisis management techniques with external bail-outs have only led to debt overhang and a hindrance for the country's economy to restart (Reinhart & Trebesch: 2015). 2010 -2012 witnessed the crisis affecting the Greek economy in the worst way with slow progress of structural reforms and negligible forms of privatisation in any sector in the economy. Soon after, Ports became part of the structural reforms program with the issue of ownership undecided (Pallis & Vaggelas: 2017). This paved the way among others for China's COSCO (China Ocean Shipping Company) to enter the Greek maritime sector.

The increase of Chinese Maritime presence in the Mediterranean raises questions not only about the economic aspect, but also about geo political and military implications for the region in the long term. This is particularly visible in the countries where China has invested that were severely affected by the Euro Zone crisis. China's influence in Greece directly challenges Brussel's strength in the region and thereby positions itself as an alternate market. The 'One Belt One Road' (OBOR) initiative by China seeks to develop its maritime element in Europe by strengthening its cooperation with countries in Southern Europe, especially Greece (Ekman: 2018). OBOR is China's initiative to create a 'New Silk Road' with trade routes that can economically integrate Asia, Europe and Africa (Putten et al: 2016). Chinese investment in Greece is stimulated by its goal to construct a cross – border transport corridor from the Mediterranean to Central Europe which would in turn lead to a cost effective and improved access to the European market (Tonchev & Davarinou: 2017).

In order to meet the fiscal targets set by the economic adjustment programme set in place to stabilise the Greek economy, domestic savings are required to attract an investment programme that can increase the growth rate. This requires a reassurance for foreign investors that Greece is a favourable country for investment and the COSCO acquisition in 2016 was a positive step in that direction (IOBE: 2016).

## **Chinese investment in Piraeus since 2008**

China and Greece established diplomatic connections in 1972 and since then, their cooperation has come a long way. The Chinese presence in Greece through foreign investment was initially recorded in 2008 with COSCO signing a concession agreement with Greece for a major stake in the Piraeus sea port. The EUR 3.4 Billion agreement came into effect in 2009 and increased Piraeus port's capacity by building a third pier. The global crisis in 2008 coincided with the tenders for two major ports in Greece- Piraeus and Thessaloniki. While the pre - 2008 period experienced large offerings from investors to obtain control of operation over these ports, interest declined drastically as a result of the crisis (Pallis & Vaggelas:2017).

The Piraeus Port Authority (PPA, Greek acronym OLP) was formerly owned by the state and was established in 1930. Being the largest port industry in Greece and one of the biggest in Europe, OLP operates on concession contracts, with the Piraeus Container Terminal (PCT) being the most important (Bastian:2017). OLP was leased to COSCO in 2008 for a 35+5 year period. 2015 marked a milestone in Greek Chinese relationships with the celebration of 'China – Greece Maritime Year' in 2015 (Tonchev & Davarinou: 2017). In 2016, China acquired a 67% stake over the Piraeus port, which symbolised a renewed investor interest in the Greek market (Bank of Greece: 2015). This also made Piraeus port the only major seaport in EU entirely managed by a Chinese company. In addition, China's purchase of a minority stake (24 %) in Greece's power grid operator ADMIE constituted China's second major investment in Greece (Bastian: 2017).

The Sino – Greek cooperation in the area of Chinese investment has been operationalised through the 2017 – 2019 Action Plan, which aims to promote economic cooperation between the two countries with the effective combination of China's Belt and Road Initiative with Greece's Growth Strategy (Tonchev & Davarinou: 2017).

Situated within Athens, the Piraeus port serves as transshipment hub for containers and cars on the westbound route from Asia through the Suez Canal, leading to Northern Africa, Middle East and the Black Sea. Before the concession of the port in 2008, the port was serviced by two piers with Pier I as an auxiliary port and Pier II as the main port, jointly managed by the Piraeus Port Authority (Karlis & Polemis: 2018). The port I of Piraeus Port Organisation (OLP- Greek Acronym) is a government owned and Pier II and Pier III are controlled by the Chinese owned COSCO subsidiary Piraeus Container Terminal (PCT). COSCO being one of the largest and most efficient shipping and logistic companies in the world has led to the container in PCT being unloaded twice as fast as the containers on the OLP pier. Since the COSCO takeover on Pier II and subsequently Pier III, commercial traffic has increased eightfold. This is a result of COSCO's heavy investment in modernising port facilities and equipment, negotiating deals with multinational companies to use Piraeus as a main distribution centre for Europe that brought in steady business and COSCO's investment in transit capacity by completing the link between the port terminal and the national railway system thereby leading to both Pier II and Pier III to run at full capacity. OLP (Pier I) on the other hand remains moderately active and lost majority of its clients to PCT. OLP main revenue today comes from the concessions to COSCO that from its own freight business and the spill over effect from China's investment in PCT ports on to OLP ports are yet to materialise (Meunier: 2015).

In addition to the ports, COSCO continued its investment project to transform the port of Piraeus into a major cruise hub and transshipment logistic centre for travel and trade between

Asia and South- Eastern Europe. The effect was a significant increase in Chinese tourists to Greece (Bastian, J. (2017). COSCO has the potential to transform Piraeus into Europe's fifth largest port. Since 2016, COSCO is the fourth largest container shipping company in the world with 7.5 percent of global container – shipping capacity. China has also expressed its interest in ports other than Piraeus, several airports, an electricity grid and a construction of a high speed railway network in Greece, which will undoubtedly have positive effects for investment, employment and business opportunities in the surrounding areas (Davarinou et al:2016).

In terms of contributions to the Greek economy, while the tourism industry accounted for about 4.2% of Greek GDP, the shipping industry accounted for 7.3% of GDP. Around half of the EU's fleet is Greek owned and since COSCO invested in Piraeus, they have created about 5000 jobs with COSCO employing 1300 people directly (Davarinou et al:2016). While the total value of investment from China in Greece is hard to calculate due to varying figures from varying sources, it's estimated that until the end of 2016, Chinese FDI amounted to EUR 840 million. According to the Greek embassy in Beijing, Chinese FDI in Greece currently amounts to EUR 1.4 Billion. (Tonchev & Davarinou: 2017). The cumulative benefit over the period from 2016 – 2025 is estimated to stand at EUR 511 million (IOBE: 2016).

COSCO's economic significance through investment in Greece is twofold for the EU. Primarily, it benefits the Greek economy and indirectly contributes to a stable relationship between Greece and rest of the EU. Secondly, the terminal project's Greece's ability to attract long-term foreign investors at a large scale despite its financial struggles (Putten: 2014).

### **Geo political implications of the cooperation:**

The Chinese involvement in Piraeus port attracts a lot of concern over fear of China dominating the European market. Economically, the Piraeus port serves as an export and distribution hub for Chinese goods throughout Europe and the Mediterranean, which can accelerate the deindustrialisation of Europe. Piraeus port also symbolises the Chinese goal of framing its new Silk Road, ie 'One Belt One Road' which connects Europe to China via sea and land. This further raises security concerns, not only in Europe, but also in the United States over China's intentions strategically and politically. In Given China's history of threatening countries who protest its human rights abuses or meet the Dalai Lama, its only matter of valid concern over the repercussions of overly relying on Chinese investments to such a large scale (Meunier: 2015). If China's security relations with the US, Russia and EU become strained and competitive, this will translate into regional instability in the Southeast Europe – Turkey region. Furthermore, the US and Russia have significant interest and influence over the region with US having several NATO alliances and Russia having cultural, religious and historical ties. China's growing potential for influence due to OBOR raises concerns of the position of the traditionally great powers of the EU, US and Russia ((Putten et al: 2016).

### **What next for China and Greece?**

With its competitive position, Piraeus has the potential to become a major container hub in the Mediterranean and its inclusion in OBOR opens doors for development in infrastructure, development and connectivity with Europe. This can benefit Greek businesses with modern facilities and technology as well as a positive impact on the economy by rendering Greece

attractive to foreign investments (Davarinou et al: 2016). While the Chinese economic presence in Greece is underreported due to strict interpretation of the definition of FDI, China is yet to join the list of most important foreign investors in Greece. With Greece's dire need for investments and finance, the investment from China is very welcome, albeit with Greece striking a balance between China's priorities and Greece's core interest so as to result in a 'win – win cooperation' (Tonchev & Davarinou: 2017). The Bank of Greece (2015) believes that privatising public property at an optimal cost is the way to restore investor climate and confidence in the country so as to bring more funds, eventually to meet the fiscal adjustment targets and reducing public debt so as to return to sustainable growth.

A political implication of this bilateral cooperation that concerns the EU is Athens being soft with Beijing in return for continued investment. This was evident in 2016 when Greece was one of the three member states in Europe backing China on the South China Sea dispute and Greece blocking an EU statement to the UN on China's human rights record (Tonchev & Davarinou: 2017). Greece is the gateway through the Mediterranean for Chinese investments under the One Belt One Road Initiative. Although China's maritime cooperation was largest with Greece, it plans on extending the same level of cooperation with other nations in Europe, especially five other countries in the Balkans and Athens has extended support for this project that China envisions (Ekaman:2018)

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