Export or perish: can internal devaluation create enough good jobs in Southern Europe?
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Abstract
During the early 2010s, creditor states and EU institutions demanded that the Southern states of the eurozone liberalize their labour markets to facilitate internal devaluation and export-led recoveries. With some variation, the Greek, Portuguese, Spanish and Italian governments responded complied. This article explains why such a strategy of internal devaluation within the eurozone might fail to produce adequate employment growth to put these countries on stable financial footing. It exploits variation in the timing and intensity of reforms to evaluate the record of the internal devaluation strategy. Our findings suggest that there is no linear relationship between internal devaluation and export-growth. Even where the latter has been impressive, dualism persists and the employment recovery has been weak.

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Keywords
Labour market reform, internal devaluation, precarious employment, growth models, export-led growth, Greece, Italy, Portugal, Spain.

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The literature on the eurozone crisis has documented the intense pressure exerted on Southern European governments to conform to dictates of the ‘troika’ of creditors made up of the European Commission, the European Central Bank, and the International Monetary Fund (Armigeon & Baccaro 2012; Blyth 2013; Sacchi 2015; Guillen & Pavolini 2015). The strategy these institutions prescribed for Southern Europe had two main ingredients: fiscal consolidation (i.e. austerity) and structural reforms (i.e. liberalisation of markets, especially, labour markets). In Greece and Portugal, which were unable to refinance their sovereign debt, extensive fiscal and structural measures were imposed explicitly as a direct condition for external financial assistance in official memoranda of understanding. But even in Italy and Spain, which did not require sovereign bailouts, governments informally faced pressure from the ECB to institute similar measures as a condition for the central bank’s actions to stabilize bond markets (Sacchi 2015; Perez 2015; Brunnermeir, James & Landau 2018, pp. 96, 416-416).

An extensive literature has discussed the effects of fiscal austerity in Southern Europe, with the latter including effects on income distributions and welfare states (see Ball 2013; Matsaganis 2013; Heins & de la Porte 2015; Pavolini et a. 2016; Engler & Klein 2015; Petmesidou & Glatzer 2015; Sacchi 2018; Perez & Matsaganis 2018). This literature shows that the pro-cyclical turn in fiscal policy started in 2010 intensified recessions, increased job losses, reduced the path of output growth, and contributed to rising poverty and income inequality. In this article, our focus turns to the results of labour market reforms intended to facilitate internal devaluation in labour costs. We are particularly interested in understanding the implications of such labour market reforms for the character of employment recovery (or lack thereof) in Southern European states.

A number of recent studies have focused on the ways in which recent labour market reforms have varied across Southern Europe (Picot & Tassinari 2017; Afonso 2019), how they changed the balance of power between labour unions and employers (Rathgeb & Tassinari 2017), and how vulnerable they eventually proved to policy reversal (Afonso & Bulfone 2019). By contrast, our intent here is to exploit the experiences of the four main Southern European member states of the eurozone (Greece, Portugal, Italy and Spain), including differences among them, to evaluate how well internal devaluation has worked as a strategy to promote labour market recovery within the eurozone. Just like fiscal austerity instituted in the midst of recession was justified at one point as ‘expansionary austerity’ that would boost confidence among international investors (Alesina & Giavazzi 2010), labour market reforms to facilitate downward wage flexibility were justified as part of an economic strategy. The internal devaluation such reform was intended to produce would take the place of nominal exchange rate devaluation, allowing the debtor states in the currency zone not just to balance their internal accounts by repressing internal demand for imports but also to recover through export-led growth. It has been suggested that the insistence that debtor states pursue this strategy was in fact guided by less noble objectives, such as ensuring that commercial banks in creditor states be paid in full for their holdings of peripheral public and private
debt (Thompson 2015), or forcing debtor states to conform to a neoliberal agenda to weaken labour unions across the eurozone (Rathgeb & Tassinari 2017). Nonetheless, the promotion of labour market reforms to facilitate internal devaluation was based on – and justified by - a specific logic of economic adjustment and a particular vision of how these countries could exit the crisis fastest. In the following sections, we first examine where the logic of internal devaluation may fall short by holding it up to the literature on post-industrial growth models. We draw on the recent literature on both structural reforms and growth models to explain why internal devaluation based on labour market deregulation would fail to produce the expected outcomes in Southern Europe. We suggest that such reforms, as instituted in some countries, may simply undercut recovery (we see some evidence of this in Greece). It may also exacerbate incentives for firms to regain competitiveness by exploiting the increased leeway for precarious employment – contrary to the argument that they would reduce dualism in labour markets - with negative consequences for the quality of employment as these economies return to growth. We then look at the economic and employment performance of Greece, Portugal, Spain and Italy in the wake of labour market reform, finding that there appears to be little relationship between the degree of internal devaluation and export or employment growth. We conclude by discussing how comparative political economy might help explain some of the paradoxical findings we observe.

**The logic of internal devaluation as a growth strategy for Southern Europe**

Over the past decade, the challenges of technological change, growing economic inequality, new competition from emerging economies and the financial shock of the Great Recession have led political economists to wonder whether the advanced economies will be able to adjust in ways that mitigate the negative consequences of those changes. This concern has been particularly strong with respect to Europe, where the post-war era had allowed the construction of generous social welfare states (at least to the West of the Iron Curtain). Among the eurozone countries, it was the so-called GIIPS (Greece, Ireland, Italy, Portugal and Spain) that suffered most from the Great Recession. The policy response in these countries was dictated, to various degrees, by conditions imposed on their governments in return for financial assistance, or by the ECB, which pressured governments to comply with economic reforms prior to stepping into sovereign debt markets in late 2011.

When the eurozone debt crisis first spread from Greece to other member states in 2010, it was common to attribute the debtor states’ problems to a lack of ‘fiscal continence’ by their governments (see for instance Elliot 2010, and Boltho & Carlin 2013). Yet it soon became clear that prior to 2008 some of the countries facing difficulties (specifically Ireland and Spain) had actually run primary surpluses and steadily cut their public debt (which was the lowest in the currency zone to start). A new consensus thus emerged among European policy-makers that attributed the GIIPS’ predicament to a loss of competitiveness vis-à-vis both other eurozone economies and the rest of the world. This loss of competitiveness, measured typically in unit labour costs was, in turn, ascribed to extravagant credit growth (both public and private) and excessive wage increases in these countries. Although there is now
substantial literature suggesting that this interpretation was highly skewed (see Perez 2019), at the time the conventional wisdom among creditors was that the problems were firmly located in debtor states; they originated from inefficient institutions and the decisions of local actors (governments, banks, unions) and therefore had to be addressed principally by their own governments. Creditor states and institutions demanded pro-cyclical fiscal austerity to reduce internal demand, along with structural reforms. Because the loss of competitiveness was attributed to labour costs, the main demand (as reflected in memoranda of understandings and ECB letters) was that governments liberalise labour markets to facilitate downward wage adjustments. The common formula asked of debtor state governments was that they reduce the strictness of employment protection, decentralize or deregulate wage bargaining, and cut social benefits. In the cases of Greece and Portugal, these measures featured prominently in the economic adjustment programmes signed with the Troika in 2010-2011. In the cases of Spain and Italy, they were stipulated in letters sent by the ECB to the two governments in 2011 while the central bank considered an extension of its bond purchase program (ECB 2014; Sacchi 2015; Pavolini et al. 2016; Brunnermeir, James & Landau 2018, pp. 414-416).

The logic behind the strategy of internal devaluation was straightforward (see among others Asmussen 2011, Trichet 2011, Draghi 2012). Following the launch of the common currency in 1999, so the argument went, Southern European states had run up substantial external deficits to finance public spending and wage growth at a lower cost than was possible prior to monetary union. When external lending came to a sudden stop in 2008, and given that eurozone member states did not have their own currencies to devalue in order to rebalance their external account, all they could do to halt rising unemployment was to engineer a fall in wages and prices by removing constraints on competition in labour and product markets. Deregulation would help firms cope with reduced domestic demand by competing more successfully in international markets. The surge in exports would have an expansionary effect, creating jobs and ending the recession. When growth via export expansion was restored at some indeterminate point in the future, wages would be able to rise again (first in exporting firms, then elsewhere in the economy). If, on the contrary, internal devaluation failed to happen and wages did not adjust to lower internal demand, the crisis would inevitably exact even greater costs in terms of job losses. In the jargon of economists, if the market did not adjust by price, it would do so by quantity (see De Grauwe 2013, pp. 154-155). As the president of the ECB put it in his 2014 speech at Jackson Hole, commitment to internal devaluation (or lack thereof) explained why Spain, where ‘nominal compensation per employee continued to rise until the third quarter of 2011’, had seen a 12 percentage point increase in unemployment, while in Ireland, where ‘downward wage adjustment began already in the fourth quarter of 2008 and proceeded more quickly’, unemployment rose less and began to fall earlier (Draghi 2014).

The internal devaluation strategy was prescribed as the only way for eurozone debtor states to emulate the export-led growth of Germany and the Visegrád states (Hungary, Poland, Czech Republic and Slovakia) which had grown through foreign direct investment serving the supply chains of German,
French and even Italian manufacturers (Bohle & Greskovits 2012). The argument was also rooted in a long-standing belief – advanced by policy-makers in the Southern states themselves – that excessive employment protection and relatively centralised wage bargaining was a source of economic inefficiency and resource misallocation. Hence Mario Draghi’s comparison of Spain, where the most significant labour market deregulation measures were only implemented in 2012, and Ireland, which historically had lower levels of employment protection. Nevertheless, the insistence on internal devaluation also served other goals. It was thought that trade surpluses engineered through internal devaluation would allow these countries to repay their external debt without bringing into play the ‘moral hazard’ attached to other ways by which eurozone imbalances might be addressed (for instance, the creation of debt mutualisation instruments to reassure bond markets, more aggressive reflation in the creditor states through fiscal stimulus, or ultimately the creation of a ‘transfer union’).

**Internal devaluation and the political economy literature on export-led growth**

The heavy focus on internal devaluation via labour market deregulation and austerity as a strategy for recovery in Southern Europe has been criticised from numerous quarters. To start with, prominent economists of all persuasions reached the conclusion that the eurozone crisis was primarily a financial crisis rather than a crisis of excessive public spending, and that it was driven not just by budget deficits but also by cross-border capital flows that fed private credit booms in the debtor states (Baldwin et al. 2015) The external, current account deficits of the debtor states appear to have been principally the result of asymmetric demand shocks set off by monetary union, which created incentives for interbank credit flows to the eurozone’s periphery (Gaulier & Vicard 2013; Comunale & Hessel 2014; Hobza & Zeugner 2014; Perez 2019). Accordingly, the notion that competitive wage devaluation was the only acceptable way to address debt imbalances (as opposed to, say, greater fiscal stimulus and risk sharing to stop contagion across the eurozone) rested on a misunderstanding of the sources of those cross-border imbalances. While structural reforms (of a certain type, as explained below) might contribute to more balanced growth in Southern Europe in the longer run, they were of little help as a remedy to the immediate causes of the crisis.

The one-size-fits-all character of the labour market reforms advanced in Southern Europe as a response to their external deficits is also susceptible to criticisms that have been lodged against the indiscriminate promotion of structural reforms more generally. A recent review of the evidence by Campos, De Grauwe and Ji (2018) suggests that the effectiveness of structural reforms in promoting growth varies greatly depending on the ‘type of reform, timing, sequence, and political constraints’ (p. 1). The authors observe that labour market liberalisation is subject to the law of decreasing returns so that ‘at some level of flexibility it may not be worthwhile to go on with structural reforms aiming at increasing market forces even more. The return in terms of additional economic growth may be close to zero’ (pp. 4-5). There are two main reasons why reforms aimed at increasing competition in labour markets may have diminishing returns in advanced market economies: transaction costs may be too high, and constraints
on employers may be beneficial for growth. The authors find that ‘too much flexibility in the form of very low employment protection will tend to reduce productivity and economic growth’ so that they find a negative relationship between employment protection and economic growth appears to be non-linear (pp. 6-7). The political economy of structural reforms is another constraint: ‘social and political unrest over perceived unfairness of the outcome of the reforms; changes in political regimes that lead to reversals in the structural reforms; political instability that reduces investment’ all represent spill-overs that led to less economic growth’ (pp. 8-9).

The emphasis placed by Campos, De Grauwe and Ji (2018) on the negative implications of excessive flexibility for growth resonates with the Varieties of Capitalism literature, which postulates a positive relationship between employment protection and skill formation (Estevez-Abe, Iversen and Soskice 2001; Belot, Boone & van Ours 2007; Hartcourt & Wood 2007; Gaetani & Doepke 2016). On the other hand, Rodrik (2016) has shown that the record of structural reforms in Asia, Africa, and Latin America during the 1980s and 1990s under the ‘Washington Consensus’ was quite disappointing, a fact widely recognised by the IMF by the time of the eurozone crisis. The lessons learned in these other settings were somehow ignored during the European debate over the reforms pressed upon Greece and other crisis-battered countries on the periphery of Europe. Indeed, Fitoussi & Saraceno (2013) have pointed out the strong kinship between the ‘Berlin consensus’ around internal devaluation in the eurozone and the earlier, partly abandoned ‘Washington Consensus’ on the benefits of structural reform through conditionality in market economies.

The political economy literature offers additional reasons to be concerned about the long-term effects of internal devaluation in Europe. The recent literature on ‘growth models’ suggests that the performance of European economies when it comes to distributional outcomes has increasingly come to depend on whether growth is driven by external demand (‘export-led growth’) or internal demand (consumption and investment), and, if the latter, whether internal demand is sustained by a rising (or at least steady) wage share or fuelled by an expansion of private credit. Baccaro & Pontusson (2016) argue that, because export-led growth requires wage moderation or even stagnant real wages, it benefits those whose income derives principally from profits and dividends (as in Germany in recent decades). Wage-led growth can slow the rise in inequality observed across advanced industrialised economies (as was the case in Sweden following the financial crisis of the 1990s). In contrast, demand may be unsustainable in the longer term if maintained through credit growth (as in the US and in the UK prior to 2007).

Southern European countries, as well as France, are often thought to have relied historically on internal demand (‘demand-led growth’), allowing nominal wage growth and subsequently offsetting it by ‘competitive devaluation’ (Hall 2012, p. 359; Iversen & Soskice 2018; Manow, Palier & Schwander 2018). Whether or not this accurately describes the historical path of economic development in these countries, it ceased to be an option following monetary union. The insistence that debtor states adjust through internal devaluation may be seen as an attempt to force the Southern states onto a growth path similar to that followed by Central European states, in particular the Visegrád countries, which achieved
an important measure of income convergence with Western Europe by attracting foreign firms to invest in export industries based on their lower labour costs. This raises the question of whether such a policy would place workers in the two peripheries of Europe in direct competition with each other for foreign investment. Mario Draghi’s comparison of Spain and Ireland, attributing Ireland’s earlier turn to growth – also driven by foreign investment – to the country’s quicker drop in unit labour costs appears to bespeak this idea.

However, the literature on growth models in Europe also offers numerous reasons to suspect that neither the Irish experience nor that of the Visegrád countries vindicated the use of internal devaluation as a recovery strategy in Southern Europe. McDonnell and O’Farrell (2016) have shown that the early fall in unit labour costs in Ireland alluded to in Draghi’s 2014 speech had little to with labour market flexibility and far more with compositional shifts in the Irish economy and cuts in public sector wages. Indeed, most of the fall in aggregate unit labour costs was an artefact of the collapse of employment in the labour intensive (lower productivity) construction sector and the rise in employment in the technology sector. Brazys and Regan (2017) and Regan and Brazys (2018) also offers important insights regarding Ireland’s FDI-led export growth miracle and Ireland’s earlier employment recovery following the crisis. Rather than wage dynamics, they argue, the Irish growth model was the result of an intensive use of state ‘enterprise’ policy to boost the country’s attraction as an EU hub for American technology firms that relied heavily on the strategic use of very low corporate tax rates to attract foreign investment. The spectacular growth figures this model has recently produced can be misleading as foreign multinationals locate a disproportionate amount of their global profits in Ireland, thus making GDP vastly larger than GNP in the case of Ireland and large amounts of those profits return to foreign investors. This tax-haven strategy to attract FDI, Regan and Brazys suggest, has resulted in a dualistic economy in which technology sector employees – large numbers of which are foreign nationals attracted by high salaries in technology sectors – benefit at the expense of locals whose fate in the labour and housing markets has proven far more vulnerable.

Other analyses suggest that the success of the Visegrád countries with export-led growth is also unlikely to be replicable in Southern Europe. Bohle and Greskovits (2012) show that the ‘depend growth’ model these countries pursued - based heavily on FDI in manufacturing by German, Dutch and Italian investors - resulted from the particular combination of asset privatisation during the post-communist transition, the pursuit of neoliberal policies aimed at meeting EU accession demands, and geographic proximity – again, a very particular set of historical circumstances. Furthermore, while both corporate tax rates and wage and social expenditures started out lower in these countries than in Southern Europe, all of the Visegrád countries experienced very fast growth in unit labour costs as FDI-led growth advanced. Bohle (2018) points out that the high concentration of foreign ownership also created serious state legitimation problems in countries such as Hungary and Slovakia. This, she argues, became a major impetus for the spread of xenophobic nationalism in the region, in particular once governments ran out of room to compensate losers of the FDI dependent growth model by expanding contributory pensions.
Other cases of successful export-led growth in the EU, such as that of Germany or Sweden, have been premised on conditions that, if anything, are likely to be undermined by the kind of radical labour market measures required to produce rapid internal devaluation in Southern Europe. The combination of wage moderation and productivity increases in Germany and Sweden, for instance, took place in a context of strong unions that were able to extract commitments from employers to preserve jobs in exchange for limiting wage growth (Hassel 2014; Johnston 2017). With some variation, there is evidence that South European labour confederations also pursued competitive wage-setting with considerable success, restraining wage growth across the economy in the run-up to the Euro, and in the case of Spain all the way to the financial crisis (Perez 2000, 2001; Posen & Gould 2007; Traxler 2009; Keune & Vandaele 2013, pp. 4-7). The labour market reforms prescribed to, and largely carried out, in Southern Europe have weakened labour unions, reducing their role in wage setting and damaging their legitimacy. They have thereby also undermined some of the institutional conditions typically associated with export-led growth in the eurozone’s core. In addition, export-led growth in the European core is also premised on strong investment by employers in worker training. Yet such a commitment by companies (as well as workers) is less likely when employment protections are eased and it is easier for companies to adjust to market conditions by firing workers.¹

In the case of Germany, there is disagreement on the extent to which the export-led growth has been based on labour cost competitiveness, and on which features of the German institutional context were most important in producing wage moderation. Different authors suggest it was the 2000 corporatist agreement by unions and employers to allow wages to fall below productivity gains, the Hartz reforms of the early 2000s, the reorganisation of supply chains to the Visegrád countries, or the de facto decentralisation of wage bargaining to the firm level bargaining as a result of the labour unions’ fear of outsourcing to the East (see Rinne & Zimmermann (2013), Dustmann et al. (2014); Hassel 2014; Strom & Naastepad (2015a), and Bofinger (2016) for different views). Even if stagnant real wage growth in the service sector did play a role in repressing German domestic demand, thus contributing to current account surpluses (as argued by Baccaro & Tober 2017), it does not follow that the model ought to be emulated by other Eurozone member states. Indeed, Baccaro and Tober find that exports in other Eurozone countries, including Italy, are not as price or cost competitive as in Germany, a fact that may be explained by Germany’s higher share of exports to emerging markets.

There is also the larger question of whether it is possible to achieve export-led growth with broadly comparable outcomes (in terms of employment levels and converging living standards) across a currency area as large as the eurozone. The economies of Southern Europe are specialised in sectors that

¹ For instance, the theory and evidence on the relation between employer protection legislation and training provided by firms are ambivalent. Dolado, Ortigueira and Stucchi et al. (2016) have shown that labour market reforms expanding temporary employment in Spain have resulted in employers providing less training. In contrast, Sulis, Bratti and Conti (2018) have found that higher levels of employment protection reduce firms’ incentives to invest in workers’ training, while another paper by the same authors (Bratti, Conti & Sulis 2018) has concluded that firms provided more training after the Fornero reform that lowered employment protection.
cater to different markets (a reason to expect considerable asymmetries in external shocks). Moreover, they are integrated into global value chains differently from Germany, and also from each other. Dones Tacero, Heredero de Pablos, and Ruesga Benito (2017) have argued that countries like Spain or Italy, whose main exports are concentrated in medium-to high value added production (chemicals, automobiles or pharmaceuticals along with business services), are likely to see fewer employment spill-over effects from exports to the rest of the economy because exports rely strongly on emerging market economies for inputs and intermediate goods. The authors contend that businesses in these particular sectors face strong pressure in favour of labour substitution, implying that a larger role for these sectors in the economy might produce lower overall employment growth. Indeed, in the case of advanced industrialised countries, the literature suggests that when countries upgrade their position in global value chains, average wages rise (benefitting high skilled workers most) but net overall employment appears to fall (Farole, Hollweg & Winkler 2018). It is therefore questionable whether exports alone can produce sufficient high-quality employment growth to sustain living standards and welfare states. The failure to do so is almost certain to produce political legitimation crises like those observed in the dramatic transformation of national party systems in several of the Southern states.

Summing up, while improving export performance is a legitimate policy goal - even an irrefutable one following a period of significant current account deficits - internal devaluation may well be an inappropriate strategy to respond to an employment crisis in Southern Europe. If the strategy were viable, in any case, we would expect those countries that have pursued more radical labour market measures to produce more significant reductions in unit labour costs and we would expect these reductions in turn to produce greater export-led employment growth. In addition, export growth would need to be linked with growth in stable (as opposed to temporary or precarious) employment. The following section explores the extent to which the experiences of the four European countries meet these expectations.

3. Recovery in Southern Europe in the aftermath of structural reform
There is a large and growing body of literature on labour market reform in Greece, Portugal, Italy and Spain (see among others Afonso & Bulfone 2019; Cardoso & Branco 2018; Theodoropoulou 2018; Sacchi 2018; Picot and Tassinari 2017; Cioffi & Dubin 2016; Pavolini et al. 2016; Moreira et al. 2015; ILO 2014, Matsaganis 2013; Constâncio 2011). What this literature shows is that labour market reforms were pursued with different levels of intensity, most aggressively in Greece, followed by Portugal and Spain, in that order, and that the intensity of reforms was indeed related to the extent of internal devaluation. By contrast, in Italy the most significant measures, those included in the Renzi government’s Jobs Act, were only implemented in 2015, at least three years later than the major reforms in the other three countries. The Italian reforms have also been the most balanced as they strengthened unemployment protection (which was particularly weak in Italy) at the same time that they lowered employment protections (Sacchi 2018; Picot & Tassinari 2017). Spain represents an intermediate case,
but as Picot and Tassinari (2017) and Cioffi and Dubin (2016) have shown, the bargaining position of Spanish governments was stronger vis-a-vis creditors than that of Greece or Portugal. The contrast in reform intensity is reflected in Figure 1, which presents the strictness of employment protection in terms of individual and collective dismissals for workers on regular contracts, expressed in a scale from 0 (least strict) to 6 (strictest), through 2013, the last year for which the OECD index was updated\(^2\). As the figure shows, in 2008-2013 labour protection legislation as measured by this indicator became significantly less strict throughout Southern Europe, especially in Portugal and in Greece. Nonetheless, it should be added that firing costs were not the only major object of labour reforms; the reforms also involved important measures that weakened the position of unions in bargaining including the decentralisation of collective bargaining resulting in lower coverage rates.

*Figure 1 about here*

What were the effects of these labour market reforms in Southern Europe?

In terms of wages, there can be no doubt that structural reforms worked as advertised. Employees’ real compensation per hour worked in 2010-2013 fell cumulatively by 16.2 per cent in Greece, by 7.3 per cent in Portugal, by 5.7 per cent in Spain, and by 3.7 per cent in Italy. In contrast, in the eurozone as a whole, the indicator went up, albeit very slightly (by 0.4 per cent). Wage moderation was also evident in employees’ hourly compensation, which was virtually zero in Greece, Portugal and Italy over the period 2013-2016, while it rose slightly in Spain (by a cumulative 1.7 per cent over the period, compared to 3.6 per cent in the eurozone of 19 countries).

Unit labour costs, which depend on both wages and productivity, also fell, though not in line with wages. Comparing peak to trough (pre- to post-structural reforms), nominal unit labour cost declined by 11.0 per cent in Greece (in 2010-2016), 6.5 per cent in Portugal (in 2009-2014), and 5.7 per cent in Spain (in 2009-2016). By contrast, they kept rising in Italy (by 8.3 per cent in 2008-2017, relative to 9.7 per cent in the eurozone as a whole). On the whole, with the exception of Italy, labour cost competitiveness improved considerably in the South vis-à-vis the rest of the eurozone, at least when measured in terms of unit labour cost that is at the level of economies as a whole. This is shown in Figure 2.

*Figure 2 about here*

When we look at whether internal devaluation in turn resulted in export-led growth, the evidence is less compelling. In Greece, where internal devaluation was massive, export performance was disappointing, with the volume of goods and services exported between 2010 and 2013 rising, but by a mere 2.7 per

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\(^2\) The OECD Employment Protection Legislation indices cannot capture all the subtleties of labour market regulation, as these often depend on how different aspects of labour law interact in each country. For this and other reasons, it is changes in (rather than levels of) the indices that are most revealing.
cent. In Italy, where labour costs fell less than in the other three countries, exports increased more significantly, though still not as much as in the eurozone as a whole (by 8.4 per cent vs. 10.6 per cent over the same period). Exports grew fastest in Spain (by 13.2 per cent) and Portugal (by 18.4 per cent) in the 2010-2013 period. And this pattern persisted in the subsequent three-year period (2013-2016), with exports growing by 17.3 per cent in Portugal, followed by Spain (14.6 per cent), then Italy (10.2 per cent), and least in Greece (9.3 per cent) relative to a eurozone average of 14.4 per cent for the period. Nonetheless, exports did become the fastest growing sector of total demand in all four countries as domestic demand first collapsed and then stagnated.

While internal devaluation failed to produce consistent export-growth, its success in kick-starting overall growth was even more equivocal. Once again, Portugal and Spain did better than Italy and Greece. However, in Portugal, where the fall in wages had been second only to that of Greece and the shift to exports was greatest, cumulative GDP growth was only 4.3 per cent in 2013-2016. By contrast, in Spain, where internal devaluation had been less dramatic than in Portugal and export performance less spectacular, the economy grew twice as fast (8.3 per cent over the same period). Overall growth was sluggish in Italy (+1.9 per cent over the three-year period) and virtually non-existent (+0.2 per cent) in Greece.

Most troubling, however, is the record of internal devaluation as an engine of job growth. In Greece, net job creation\(^3\) during the recovery (2013-2018) made up for only 27 per cent of the net job destruction during the Great Recession and the eurozone crisis (2008-2013). In Spain and Portugal, the equivalent ratio was 64 per cent and 73 per cent respectively. By contrast, in Italy, where the labour market reforms were delayed and wages had fallen far less, the ratio was 88 per cent. In the eurozone of 19 member states, more jobs were added in 2013-2017 than were lost in 2008-2013 (a ratio of 138 per cent). Yet in Portugal and Spain, which have received a great deal of favourable attention (OECD 2018, pp. 221-226), high unemployment has persisted in spite of internal devaluation and continues to be the principal cause of poverty and inequality. Indeed, the total number of workers in employment\(^4\) remained lower in 2017 than it had been in 2008 in all four countries. And yet Italy, where internal devaluation was delayed and least intense, the net loss in jobs over the period was the lowest of the four countries. By the end of

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\(^3\) Note that job creation and job destruction take place simultaneously at all times. The difference between the two is ‘net job creation’ (or, when it is negative, ‘net job destruction’). Note also that, strictly speaking, since it is possible for a worker to hold more than one job at the same time, changes in the number of workers in employment (as reported in the text) need not be identical to changes in the number of jobs.

\(^4\) Since the size of Southern European workforces has changed significantly (and differently) in recent years, the number of workers employed (or, arguably, of hours worked) is a better indicator of job growth than the employment (or unemployment) rate. The decline in fertility is one reason for that. The rise of migration out of Southern Europe is another. The combination of both, and with migration into Southern Europe, has resulted in shrinking populations in Greece and Portugal (by -3.3 per cent and -2.5 per cent respectively in 2010-2017), and a stagnant population in Spain (+0.1 per cent over the same period). In Italy, the effect of immigration more than offset that of emigration and low fertility (+2.4 per cent in 2010-2017). In the EU as a whole, the population grew by 1.7 per cent over the period.
2018, the number of employed persons was still lower than it had been in 2008, by 17 per cent in Greece, 5.8 per cent in Spain, 3.6 per cent in Portugal, but a mere 0.5 per cent in Italy.

Figure 3 about here

The employment recovery in Southern Europe following the labour market reforms looks even more disappointing when we compare numbers of hours worked at different points in time rather than the number of workers employed. The share of full-time work in total employment actually declined over the period. While still less widespread than in the rest of Europe, part-time work gained in importance in all four countries, especially between 2008 and 2013. In 2017, the share of part-time employment was 18.5 per cent in Italy, 14.9 per cent in Spain, 9.7 per cent in Greece, and 8.9 per cent in Portugal (up from its 2008 level by around 4.4 percentage points in Italy and Greece, 3.4 in Spain, and a mere 0.1 percentage point in Portugal). The EU average was 19.4 per cent in 2017, up from 17.5 per cent in 2008.

Most significantly, the percentage of part-time workers involuntarily employed as such is considerably higher than in the rest of the eurozone. They represent 70 per cent in Greece, 62 per cent in Spain, 61 per cent in Italy and 36 per cent in Portugal, compared to 11 per cent in Germany or 7 per cent in the Netherlands. As a percentage of all employed, those in part-time work only because they could not find a full-time job rose between 2008 and 2017 from 5.8 per cent to 11.6 per cent in Italy, 4.2 per cent to 9.1 per cent in Spain, 2.4 per cent to 6.8 per cent in Greece, and 3.5 per cent to 4.2 per cent in Portugal.

In the EU as a whole, the rise in involuntary part-time work was less dramatic (from 4.5 per cent in 2008 to 5.1 per cent in 2017).

Compounding the trend towards involuntary part-time work, the relaxation of employment protection for indefinite workers has also failed to limit the tendency to resort to fixed-term contracts across Southern Europe. This is particularly striking when we consider that labour market dualism (between ‘insiders’ on permanent contracts and ‘outsiders’ on temporary contracts) was one of the main justifications offered domestically for labour market reform. The share of temporary jobs in Southern Europe fell during the recession because workers on temporary contracts were cut first. Yet as growth returned, this share rose again. By the end of 2017, the share of temporary workers in total employment was highest in Spain (26.8 per cent) and in Portugal (22.0 per cent), albeit below its 2008 level (29.2 per cent and 22.8 per cent respectively). In Italy, it rose from 13.3 per cent in 2008 to 15.5 per cent in 2017.

By contrast, the share of temporary employees in Greece remained largely unchanged over the period (from 11.6 per cent to 11.4 per cent), as it did in the EU as a whole (14.1 per cent and 14.3 per cent in 2008 and 2017 respectively). Yet, as we have seen, Greece is also the country where the employment recovery has been weakest.

Temporary employment and involuntary low-intensity work would not be such a great policy concern if workers moved smoothly from temporary to permanent jobs, and if temporary workers lived in the same households as permanent workers. But temporary work seems to cluster in pockets of poverty –
as evidenced by the fact that in-work poverty throughout Europe was three times higher among temporary workers than among permanent workers (Spain: 23.1 per cent vs 7.3 per cent; Italy: 22.5 per cent vs 7.8 per cent; Greece: 14.8 per cent vs 4.7 per cent). Portugal seemed to be an exception, with a poverty rate of ‘only’ 11.4 per cent for temporary employees in 2017, compared to 6.4 per cent for permanent employees (relative to EU averages of 17.6 per cent and 6.1 per cent respectively in the same year). Nonetheless, the proportion of people in severe material deprivation ten years after the onset of the crisis remained very high by recent historical standards in all four countries. These figures, however, tend to understate the drama experienced in the Southern Europe, as poverty figures are based on a threshold of 60 per cent of median equivalent household disposable incomes. When incomes drop quickly over a short period of time, that threshold drops at the same time; hence, in an acute recession, yearly poverty figures can hide the real fall in living standards. Eurostat offers an ‘anchored poverty’ rate by holding the poverty threshold constant at the income level at which it stood in 2008 to show the share of people who would be poor according to pre-crisis standards. This measure rose far more significantly in the 2008-2013 period. In the eurozone as a whole, it went from 16.1 per cent to 20.0 per cent. Although it then fell again, it still remained above its 2008 level in 2017 (at 17.7 per cent). In Southern Europe, however, the anchored poverty rate skyrocketed in Greece (from 20.1 per cent in 2008 to 44.3 per cent in 2013), increased sharply in Spain (from 19.8 per cent to 28.1 per cent) and Italy (from 18.9 per cent to 25.1 per cent), and somewhat less dramatically in Portugal (from 18.5 per cent to 22.3 per cent). By 2017, anchored poverty had fallen below its 2008 level only in Portugal (18.3 per cent), remained close to its crisis peak in Spain (26.5 per cent) and Italy (23.9 per cent) and had risen even further in Greece (to 46.3 per cent).5

The emerging picture is that the labour market reforms carried out in the four countries failed to produce the kind of employment recovery needed to counter the heightened precarity of living conditions. This conclusion is confirmed by OECD estimates of the expected monetary loss associated with becoming and remaining unemployed, as a share of previous earnings, combining information about the individual probability of job loss, the average duration of unemployment, and the unemployment benefits available in each country (Figure 4). Between 2007 and 2016, this loss rose threefold in Greece and Spain, twofold in Italy, and less starkly in Portugal.

Figure 4 about here

In other words, efforts to pursue economic adjustment by way of labour market deregulation do not appear to have produced either consistent export growth or the kind of success in job creation we might

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5 Income inequality also increased in the 2008-2013 period, except in Portugal. Looking at both the Gini coefficient and the S80/S20 income quintile share ratio (the latter measuring the disposable incomes of the richest 20 per cent as a multiple of the incomes of the poorest 20 per cent of the population), shows that in the 2013-2017 period inequality developed differently in each country: it kept rising in Spain, remained close to its crisis peak in Italy, fell towards its 2008 level in Greece, and continued its downward trend in Portugal.
have expected from internal devaluation. At the end of the day, the outcomes across Southern Europe appear to range from the Greek economy’s continued failure to recover, to the more successful cases of Spain and Portugal where employment remains lower than it was prior to the crisis, dualism has been exacerbated rather than reduced – with significant numbers of people having fallen into poverty either because of persisting unemployment or in-work poverty due to increasing periods of precarious work - and job market insecurity has increased substantially.

Why did internal devaluation and the increasing export orientation fail to produce growth in non-precarious employment in Southern Europe?

The overall labour market outcomes described above raise the question of why the optimistic theory of internal devaluation expounded by Mario Draghi at Jackson Hole in 2014 does not seem to be working in Southern Europe. The most common response offered is that net employment growth would have been even worse in the absence of the labour market reforms pursued and the downward wage flexibility achieved. This is the argument made by Domenech, Garcia and Ulloa (2016), Izquierdo et al. (2017) and Salas (2018) for Spain and by the OECD (2017) for Portugal. There is some evidence from Greece that internal devaluation helped stabilise the labour market by providing a lifeline to small and medium-sized firms which would otherwise have gone under (Pelagidis & Mitsopoulos 2014; see also Izquierdo et al. 2017). It might also be argued that it is simply too soon to tell, and that reforms take time to bear fruits. Yet given that it has been over six years since the bulk of the reforms were passed, this type of response casts serious doubt on the effectiveness of internal devaluation as a remedy to a jobs crisis.

Greece, where the minimum wage was cut by 22 per cent (32 per cent for workers aged 24 or less) in February 2012, offers a particularly dramatic example. Even if reforms there helped arrest the massive rise in unemployment once the crisis was underway, arguably stabilising the labour market at a lower level of employment, they clearly failed to set the basis for a recovery in employment. In the case of Spain, the most radical reform package in 2012, which included the elimination of the administrative approval threshold for collective layoffs and put the burden of proof on the worker when claiming unfair dismissal, was followed by a substantial rise in mass layoffs and a further drop in jobs benefitting from indefinite contracts. But again, the contribution of the reforms to recovery are questionable. A recent analysis (Jorlin 2018) shows that, even if the downward wage adjustment made possible by the decentralisation of bargaining spared some jobs during the downward phase of the cycle, the reforms have had a negligible effect on total employment recovery after 2015; indeed, they seem to be perpetuating if not exacerbating the reliance on atypical job contracts (temporary and part time contracts with very low wages) both of which seem to be characterised by more precarious conditions than in the past (either in terms of duration or relative pay). This also is the case in Portugal, where the reforms appear to have lowered employment conditions across the board and created a new category of ultra-precarious jobs (Cardoso & Branco 2018).
What is perhaps most striking, however, is that these labour market outcomes (failure of full recovery in total employment and persistent, if not rising, precarity of employment conditions) have been entirely compatible with a massive rise in exports in the cases of Portugal and Spain. In all four countries, gross revenues from exports as a percentage of GDP rose substantially between 2009 and 2017: from 19 per cent to 33 per cent in Greece, 23 per cent to 31 per cent in Italy, 23 per cent to 35 per cent in Spain, and 27 to 43 per cent in Portugal. In the case of Greece, this reflects the fact that the export sector was less hard hit than the economy as a whole. However, in all three of the other countries, but in particular Spain and Portugal, exports grew substantially and this was principally a story of manufacturing export growth, not, as is sometimes thought, of tourism revenues. Nonetheless, and despite a sharp fall in the contribution of financial and insurance services to the external account, there has also been substantial rise in non-tourism service exports, in particular business services which typically involve fairly high skilled workers in areas such as scientific research, engineering, architecture, and design, as well as computer and legal services. As Table 1 shows, manufacturing, along with professional and scientific services are also the sectors that have experienced the greatest growth in output since 2012.

Table 1 about here

But what has happened with employment by economic sector in these countries? The World Bank’s Labour Content of Exports data for 2011 (the last year covered) suggests that exports in Southern Europe in that year, vis-à-vis exports in core eurozone countries, were relatively labour intensive, albeit dominated by medium to high skill activities. However, as Table 2 shows, employment performance in manufacturing has been particularly poor in all four countries despite the expansion in manufacturing exports, in particular in Portugal and Spain and to a lesser extent in Italy. Indeed, the number of persons employed in manufacturing has decreased substantially (as it has in other sectors such as construction and finance which shrunk as a result of the crisis). Sectors that have done relatively well in adding to employment are the Information and Communication sector and the Professional, Scientific and Technical Activities sectors. However, the overall weight these sectors is relatively low so that employment created by these service exports cannot compensate for the low employment creation that has accompanied the rise in manufacturing exports.

Tables 2 and 3 about here

As Table 3 shows, it is predominantly lower wage service sectors that have seen employment growth since the trough of the crisis in three of the Southern states (the data is not available for Greece). Only one of these sectors (accommodation and food services) contributes to the growth of export revenues. The others (personal, domestic, and security services) all fall within the category of non-tradable services. Computer and information services in Spain, which has become an important service export
sector, is the exception to this general pattern. But it should be noted that although these service export jobs involve high skilled workers and higher wages than the other service sectors on the list, they have also been marked by high levels of atypical or precarious employment contracts (Consejo Económico y Social 2019). The disconnect between rising export revenues and employment trends across sectors in countries such as Spain and Portugal is striking and serious questions about the wisdom of relying on labour market deregulation and internal devaluation to address the persisting weakness in Southern Europe’s labour markets. Take the case of Greece, which, as already noted, saw the most radical internal devaluation with very little to show for it in terms of economic recovery. Indeed, the OECD’s Entrepreneurship at a Glance report for 2017 reveals that, unlike the other three countries where the share of exporting firms out of all firms rose substantially over the period 2011 to 2014 (in particular in Spain), in Greece this percentage actually declined over the period from 15 per cent to ten per cent. This suggests that the collapse of domestic demand – which was accentuated by internal devaluation – was so great that it also put large number of firms with export experience out of business.

However, the Spanish and Portuguese experiences are also worrisome as they suggest that even where export growth is a success in the eurozone’s periphery, it may have other consequences. The Southern European countries are often thought to share problems in the area of skills formation, as reflected in relatively high school dropout rates and poor average scores on the OECD’s adult skills performance evaluations. Yet such averages also hide important differences by age (among younger groups, skills performance scores are much higher). Moreover, high rates of emigration by those with vocational and tertiary education make it unlikely that skills per se offer an explanation for differences in national employment levels. Indeed, as the Spanish case shows, labour market liberalization can create a situation where even skilled workers involved in service export jobs are forced to take precarious employment and pay conditions. In the case of manufacturing it is also questionable whether the internal devaluation of wages made any substantial contribution to export growth. Storm & Naastepad (2015, pp. 966-967), for instance, have shown that labour costs account for a low share of manufacturing gross output prices (16 per cent in Italy and Spain, 15 per cent in Greece and 17 per cent in Portugal). Nonetheless, Dones Tacero, Heredero de Pablos & Ruesga Benito (2017) show that those Spanish manufacturing firms that are most successful in exporting are also those most engaged in labour substitution, and export growth in Spanish manufacturing has low spill-over effects on overall employment because of its reliance on imports of intermediate goods from emerging markets. Although exporting firms in Italy concentrate slightly more on capital goods than in Spain, they also increasingly rely on outsourcing lower skilled work to emerging markets, Thus Iapadre (2011, p. 20) expresses similar concerns about the possible trade-offs between export specialisation in high value-added production and overall employment growth in Italy. If this is the consequence of the particular way Southern European states are integrated into global value chains, an even greater share of manufacturing exports in GDP may be directly linked to
lower overall employment. Indeed, Farole (2017) observes that this holds for advanced economies in general.

**Conclusion**

In response to the eurozone crisis, creditor states and institutions pushed for a strategy of internal devaluation based on labour market liberalisation in Southern Europe. With different intensities and timing, this strategy was in fact pursued in Southern Europe and did deliver internal devaluation. However, our analysis suggests that there were numerous problems with this strategy. The reforms did produce internal devaluation in labour costs in all but Italy where the most significant measures were delayed until 2015. Yet Greece, which saw the largest internal devaluation, has also had the least significant growth in exports. Even in Spain and Portugal, where there was substantial export-growth, this has not helped produce enough jobs to make up for previous employment losses. Rather than end labour market segregation, dualism has persisted, and high numbers of people are experiencing even more precarious work conditions and a greater sense of job insecurity. Emigration has also been a significant result of the combination of austerity, precarious employment conditions, even during the recent recovery. The rise in in-work poverty has persisted even in Spain, which has seen the most substantial recovery in growth (although only after a level of job destruction second only to that of Greece). We suspect that export-led growth has not produced a broader recovery in the labour market in part because employment spillovers tend to accrue to the producers of intermediate goods abroad; in addition, export firms, at least in manufacturing, are also particularly prone to labour substitution. Indeed, the Spanish experience suggests that the increasing export orientation of a larger share of Spanish business may accentuate the trade-off between productivity growth and the proclivity of firms to take on permanent workers. On the other hand, the labour market performance of Italy, where measures to liberalise employment took the longest to implement and where the pace of fiscal consolidation was also slower, does not look as bad as is often thought when we take a closer look at the evolution of employment in the other three countries.

What is most worrisome, however, is that it is not yet possible to have a full understanding of many of the consequences of internal devaluation – such as the depth and length of the recession in these countries and demographic effects such as emigration and birth rates. Without more substantial employment growth and the return of better pay and employment conditions, welfare states are likely to be over-burdened and pension systems less sustainable. It also remains unclear how present levels of poverty, unemployment, and job precariousness will affect the future strategies of investment by individuals and firms in skill formation. The growth model literature tells us that high levels of public investment in education, health and infrastructure – one of the first casualties of fiscal austerity in Southern Europe – are required to attain the more egalitarian outcomes still appreciated in some (not all) of Nordic states. Without other changes in the economic governance of the eurozone, the strategy
of internal devaluation through labour market liberalisation does not appear to offer a sustainable growth model for the Southern states.

Lastly, as other critics of structural reforms have noted, the types of reforms carried out in Southern Europe have also had important political consequences. Southern Europe is not alone in this, but Greece, Spain, and Italy have all witnessed dramatic changes in their party systems with, in some cases, serious challenges to existing democratic institutions. Even if labour market reforms are not always at the heart of the passions that inspire populist revolts of a nationalist nature, we suspect that the weak employment recoveries and the heightened economic insecurity to which they have contributed make Southern Europe more, rather than less, likely to follow down a populist path. It is beyond the scope of this article to draw these connections in individual country cases. However, the weak labour market recoveries suggest that intensified distributive battles lie ahead with unforeseeable political consequences.

References


Figure 1: Change in OECD index of employment protection regulation (2008-2013)

Notes: The indicator measures the strictness of employment protection in terms of individual and collective dismissals for workers on regular contracts. It is expressed in a scale from 0 (least strict) to 6 (strictest). This version of the indicator (EPRC_V3) is the weighted sum of sub-indicators concerning the regulations for individual dismissals (weight of 5/7) and additional provisions for collective dismissals (2/7). It incorporates 13 detailed data items.

Figure 2: Unit labour costs (2008-2017)

Notes: Nominal unit labour cost based on hours worked. Index rebased to 2008=100.

Figure 3: Total employment change (2008-2018)

Notes: The grey bars show the difference in numbers of workers in employment in 2013 relative to 2008. The black bars show the difference in numbers of workers in employment in 2018 relative to 2013. The striped bars show the difference in numbers of workers in employment in 2018 relative to 2008. All three differences are normalised as a percentage of the number of workers in employment in 2008. For example, in Greece, the net number of jobs lost in 2008-2013 corresponded to 23.5 per cent of all workers employed in 2008, while the net number of jobs created in 2013-2018 amounted to 6.5 per cent of all workers employed in 2008. The difference over the entire period (2008-2018) was a net job loss equal to 17.1 per cent of all workers employed in 2008.

Figure 4: Expected loss due to unemployment (2007-2016)

Notes: Expected monetary loss associated with becoming and remaining unemployed, as a percentage of previous earnings. The measure is based on information about the probability of a worker becoming unemployed, the average duration of unemployment, and the unemployment benefits received in the event of unemployment in each country.

Extracted on: 12 November 2018.
### Tables

#### Table 1: Growth in value added by sector, exports and imports (2012-2018)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Greece</th>
<th>Italy</th>
<th>Spain</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross value added, total</strong></td>
<td>-5.0</td>
<td>8.3</td>
<td>14.1</td>
<td>16.6</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>11.4</td>
<td>4.1</td>
<td>30.7</td>
<td>20.7</td>
</tr>
<tr>
<td>Industry, including energy</td>
<td>12.6</td>
<td>13.7</td>
<td>16.5</td>
<td>26.5</td>
</tr>
<tr>
<td>of which: Manufacturing</td>
<td>15.9</td>
<td>17.2</td>
<td>20.5</td>
<td>28.0</td>
</tr>
<tr>
<td>Construction</td>
<td>-32.3</td>
<td>-4.8</td>
<td>11.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>Distributive trade, repairs; transport; accommodation, food services</td>
<td>7.2</td>
<td>14.8</td>
<td>17.0</td>
<td>18.7</td>
</tr>
<tr>
<td>Information and communication</td>
<td>0.9</td>
<td>-1.8</td>
<td>9.2</td>
<td>10.8</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>-31.7</td>
<td>-2.0</td>
<td>9.0</td>
<td>-7.5</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>-19.8</td>
<td>9.0</td>
<td>4.0</td>
<td>19.8</td>
</tr>
<tr>
<td>Professional, scientific, technical,    administrative, support services</td>
<td>-0.7</td>
<td>9.1</td>
<td>31.1</td>
<td>30.2</td>
</tr>
<tr>
<td>Public administration (incl. education and health services)</td>
<td>-9.5</td>
<td>4.8</td>
<td>11.0</td>
<td>11.7</td>
</tr>
<tr>
<td>Other services</td>
<td>-4.2</td>
<td>6.2</td>
<td>5.1</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>External balance of goods and services</strong></td>
<td>-97.9</td>
<td>166.3</td>
<td>52.8</td>
<td>-122.9</td>
</tr>
<tr>
<td>Exports of goods and services</td>
<td>22.5</td>
<td>19.8</td>
<td>28.8</td>
<td>34.8</td>
</tr>
<tr>
<td>Exports of goods</td>
<td>23.2</td>
<td>19.5</td>
<td>26.9</td>
<td>28.6</td>
</tr>
<tr>
<td>Exports of services</td>
<td>21.6</td>
<td>21.3</td>
<td>33.3</td>
<td>52.4</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>6.1</td>
<td>14.6</td>
<td>27.6</td>
<td>32.7</td>
</tr>
<tr>
<td>Imports of goods</td>
<td>8.5</td>
<td>12.4</td>
<td>24.6</td>
<td>31.1</td>
</tr>
<tr>
<td>Imports of services</td>
<td>2.3</td>
<td>24.0</td>
<td>42.6</td>
<td>42.7</td>
</tr>
</tbody>
</table>

**Notes:** Real percentage growth in gross value added by industry, and real change in value of exports and imports of goods and services, in 2012-2018. Negative values for the external balance of goods and services in the case of Greece and Portugal, where that balance was in deficit in 2012, imply either a reduction of the deficit (Greece), or a transition from deficit to surplus (Portugal) over the period 2012-2018.
Table 2: Net change in employment by industry (2008-2018)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Greece</th>
<th>Italy</th>
<th>Spain</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>-32.5</td>
<td>-13.3</td>
<td>-21.0</td>
<td>-5.4</td>
</tr>
<tr>
<td>Information and communication</td>
<td>+5.5</td>
<td>+3.0</td>
<td>+14.2</td>
<td>+42.2</td>
</tr>
<tr>
<td>Professional, scientific and technical activities</td>
<td>+5.4</td>
<td>+15.7</td>
<td>+4.5</td>
<td>+22.7</td>
</tr>
<tr>
<td>Wholesale, retail trade, transport and tourism</td>
<td>-8.6</td>
<td>+4.1</td>
<td>-2.5</td>
<td>+5.9</td>
</tr>
<tr>
<td>Total</td>
<td>-13.2</td>
<td>-0.1</td>
<td>-6.5</td>
<td>-3.3</td>
</tr>
</tbody>
</table>

Notes: Percentage change in the number of workers employed by industry in 2008-2018.
Table 3: Sectors with largest net job creation (2010-2017)

<table>
<thead>
<tr>
<th>Country</th>
<th>Sector</th>
<th>Jobs created</th>
<th>Net job creation</th>
<th>Labour productivity</th>
<th>Compensation per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>Accommodation and food service</td>
<td>218 400</td>
<td>20</td>
<td>68</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Activities of households as employers; production activities of private households for own use</td>
<td>102 700</td>
<td>10</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Employment activities</td>
<td>97 900</td>
<td>9</td>
<td>46</td>
<td>75</td>
</tr>
<tr>
<td>Spain</td>
<td>Accommodation and food service</td>
<td>185 600</td>
<td>19</td>
<td>93</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Computer programming, consultancy and related; information services</td>
<td>93 200</td>
<td>10</td>
<td>114</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>Other personal services</td>
<td>74 700</td>
<td>8</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>Portugal</td>
<td>Residential care; social work without accommodation</td>
<td>26 300</td>
<td>14</td>
<td>51</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Accommodation and food service</td>
<td>24 550</td>
<td>13</td>
<td>85</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Security and investigation; services to buildings and landscape; office administrative and support</td>
<td>24 600</td>
<td>13</td>
<td>50</td>
<td>65</td>
</tr>
</tbody>
</table>

Notes: Percentage change in the number of workers employed by industry. No. of jobs created: in number of persons. Performance of the sector relative to all economy: Net job creation in the sector, in number of persons as a percentage of total net job creation between 2010 and 2017. Labour productivity of the sector in 2010 as a percentage of total economy labour productivity. Compensation per employee in the sector in 2010 as a percentage of compensation per employee in the economy.