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TAKING STOCK OF STRUCTURAL REFORMS: A FIRM-LEVEL PERSPECTIVE[1]

Questions, Answers, and Possible Objections

What are the questions this chapter tries to answer? What did the structural reforms under the 2011–14 adjustment program hope to achieve at the firm level (Section B)? What are key characteristics of exporting and non-exporting firms in Portugal (Section C)? What was the structural reform agenda of the adjustment program (Section D)? What are the views of firms regarding the impact of structural reforms on their competitiveness and the urgency of more reform efforts (Section E)? What explains firms' perception that while structural reforms in many areas had some positive impact on their competitiveness, they still see an urgent need to revisit or step up most reforms, especially as regards public and financial sector reforms (Section F)?

Why is answering these questions important for this Article IV consultation? Views on the effectiveness of structural reform efforts under the program vary widely, in part reflecting different evaluation approaches. Using a firm-level perspective can complement other evaluation approaches. It is also in line with international trade research stressing the need to study competitiveness and exports at the firm rather than the macroeconomic level. Assessing the effectiveness of reforms from a firm-level perspective may also be important for providing specific advice on where and how to revisit or step up structural reforms.

What are the answers to these questions? Structural reforms were hoped to increase the scale and number of high-performing firms, which also tend to be exporting firms (¶5-6). Firm-level data suggest that Portugal has a limited number of exporting firms (¶8-9). On staff's count, structural reforms were initiated in 35 different areas, with 494 reform actions taken (¶13). Firms perceive that many reforms had at least some positive effects, but few reforms are seen as having had a significant impact (¶18–20). Firms' perceived urgency to revisit or step up reforms especially in the public and financial sectors likely reflects that these reforms are critical for reducing high transaction costs, especially for exporting firms (¶31). The limited perceived impact of public sector reforms likely reflects implementation capacity constraints (¶32).

What could be possible objections to these answers? Using a firm survey to evaluate structural reforms may extract misleading opinions not related to the outcomes of reforms (¶23). It is too early to assess the effectiveness of most of the structural reforms under the program (¶24). Firms may not be able to disentangle cyclical effects of the crisis from the impact of reforms (¶25).

[1] Prepared by Albert Jaeger and Elsa Martins. We thank Álvaro Matias (Ministry of Finance), João Valle e Azevedo (Banco de Portugal), and participants at a seminar at the Ministry of Finance for helpful comments on an earlier version of this chapter.

A. Background

1. Structural reforms were the main available policy tool to mend Portugal's accumulated imbalances. Portugal's macroeconomic toolbox was severely constrained by monetary union membership and spillover considerations. The only traditional macroeconomic tool, fiscal policy, had to focus on restoring its credibility to gradually regain full market access. This left structural reforms as the main tool to achieve multiple macroeconomic objectives, including boosting external competitiveness and potential growth.[2]

2. The effectiveness of structural reforms can be assessed from many angles. Using the reforms' impact on international competitiveness rankings is one popular—although hazardous—short cut. Macro-based approaches try to link reform indicators to macroeconomic outcomes (for example, Bouis and Duval (2011)). Indicator-based approaches try to link reforms to key performance indicators (KPIs) (for example, EC (2014)). And there are micro-based approaches trying to link reforms to firm level or household data (for example, OECD (2014)).

3. A firm-level perspective seems particularly apt for assessing structural reforms in the case of Portugal. Since joining the euro, Portugal has struggled to build a more competitive economy, and many perceptive macroeconomic studies have documented this struggle (for example, Banco de Portugal (2009); Bento (2010); and Alexandre et.al. (2014)). At the same time, recent firm level research suggests that macroeconomic aggregates, or even aggregates at the level of sectors, can be misleading in assessing external competitiveness because firms tend to be very heterogeneous. This suggests that evaluating structural reforms from a firm-perspective holds significant promise and insights, as already demonstrated by OECD (2014).

4. This chapter takes stock of structural reforms from a firm-level perspective. It discusses what structural reforms were supposed to achieve at the firm level (Section B), documents a few stylized facts about Portuguese firms (Section C), describes the structural reform agenda (Section D), reports the results of a firm survey on the perceived effectiveness of the structural reforms (Section E), and considers explanations why the survey responses suggest that most structural reforms should be revisited or stepped up (Section F).

B. Structural Reforms From a Firm-Level Perspective

5. From a firm-level perspective, structural reforms are expected to reduce costs. Much of a firm's success, especially in competitive markets, depends on production and transaction costs, including its ability to achieve cost reductions "stemming from 1001 different sources" (Harberger (1998). Production costs refer to unit costs of labor, capital, and intermediate inputs. Transaction costs may be less tangible, referring to a firm's cost related to searching for information, bargaining with stakeholders, making decisions, and enforcing contracts. But

[2] See chapter "Creating Jobs for Lower-Skilled Workers," Section C, for more macroeconomic context.

transaction costs tend not only to shape the organizational and contractual arrangements of production, but also the amount of goods and services that are produced and available on the market.

6. If successful, structural reforms act as a catalyst for the scaling up or the emergence of high-performing firms, which tend to be exporters. The literature has documented that firms are more heterogeneous than would be implied by a normal distribution of firm performance indicators. Exporting firms in particular tend to be higher-performing than the average firm in any given sector (Bernhard and Jensen (2004); Altomonte et al. (2012)). And, in general, only higher-performing firms within any sector—whether by convention classified as tradable or non-tradable sectors—tend to become persistent, successful exporters.

7. What would be key features of a structural reform with high impact on the firm's competitiveness and growth prospects? A high-impact reform would lead to significant cost reductions: (i) in reform areas relevant from the point of view of the firm; (ii) are underpinned by significant changes of formal or informal rules; and (iii), and the reform is backed up by sufficient implementation capacity to make rule changes stick as intended without adverse side effects. If any of these three features of an effective structural reform has a low loading or is missing, a firm will likely perceive little impact from the reform on its competitiveness and growth prospects.

C. Exporting Firms in Portugal: A Few Stylized Facts

8. Portugal has relatively few exporting firms, including in sectors conventionally associated with tradable activities. The extensive margin of exports, i.e. the percentage of firms that are classified by the Statistical Office (INE) as an exporter in a given sector and a given year, reaches only about 13–14 percent in the manufacturing and mining sectors, and about 10 percent in transportation and communication services (text table). While extensive margins are difficult to compare across countries, these margins appear to be low (see, for example, Navaretti et al. (2011), Table 2.1). Puchal et al. (2010) report that the share of exporting manufacturing firms in the U.S. is 18 percent, notwithstanding a much larger domestic market.

Portugal: Non-Financial Firms – Extensive Margin of Exports, 2010–2012 1/

(Percent)

Sectors	All firms	Large firms	SMEs	Micro firms
Agriculture	4.1	66.7	14.1	3.1
Mining	12.7	100.0	25.5	7.0
Manufacturing	13.9	80.6	32.0	5.0
Energy	5.9	6.5	10.7	3.9
Construction	3.8	34.2	10.1	2.7
Trade and accommodation	3.9	12.5	8.9	3.4
Transportation and communication	10.1	32.0	30.0	7.8
Other non-financial services	2.8	8.7	9.2	2.4
All sectors	**5.2**	**34.8**	**17.0**	**3.4**

1/ Extensive margin of exports is defined as the share of exporting firms in the sector. An exporting firm is defined by INE as a firm that exports at least 50 percent of its turnover, or that exports at least 10 percent of its turnover and it amounts to more than 150.000 euros.

Source: IMF staff estimates based on data from the Integrated System of Business Accounts (Sistema de Contas Integradas das Empresas, SCIE)

9. The relatively low number of exporting firms reflects to an important extent a firm size distribution tilted toward smaller firms. As larger firms are more likely to be exporting firms, the firm size distribution is one factor limiting the extensive margins. In most sectors, the size distribution is heavily tilted toward SMEs, and micro firms in particular (text table).

Portugal: Size Distribution of Non-Financial Firms, 2010–2012

(Percent)

Sectors	All firms	Large firms	SMEs	Micro firms
Agriculture	100.0	0.1	8.8	91.1
Mining	100.0	0.2	29.6	70.2
Manufacturing	100.0	0.8	30.7	68.5
Energy	100.0	2.8	28.7	68.5
Construction	100.0	0.2	14.6	85.2
Trade and accommodation	100.0	0.2	10.3	89.6
Transportation and communication	100.0	0.5	9.9	89.7
Other non-financial services	100.0	0.3	6.5	93.3
All sectors	**100.0**	**0.3**	**11.9**	**87.8**

Source: IMF staff estimates based on data from the Integrated System of Business Accounts (Sistema de Contas Integradas das Empresas, SCIE)

10. Consistent with findings for other countries, firms that are exporters are associated with much better performance indicators than other firms. Focusing only on the manufacturing sector and on so-called persistent exporters,[3] these firms during 2010–12 tended to be about seven times larger than other firms in terms of employment, had significantly higher productivity per worker, invested more per worker, were much more profitable, and had much lower debt-EBITA ratios (text table). As regards firm leverage, however, other leverage indicators, such as the debt-equity ratio tend to be similar across firms. Persistent exporters also responded differently to the crisis than other firms. For example, during 2010–12, persistent exporters maintained their employment and sales levels, and practically all the increase in manufacturing exports (about 90 percent) during 2010–12 is accounted for by persistent exporters (Box 1).

Portugal: Performance Indicators for Manufacturing Firms, 2010–2012

	All firms	Persistent Exporters	All other firms
Workers per firm	16.3	73.7	10.2
Value added per worker (euros per year)	26,601	34,369	20,571
Investment per worker (euros per year)	4,629	6,733	2,996
ROE (percent)	4.8	8.4	-1.0
Debt/Equity (ratio)	1.8	1.7	2.0
Debt/Value added (percent)	322.5	326.2	317.7
Debt/EBITDA (ratio)	8.6	7.1	11.8

Source: IMF staff estimates based on data from the Integrated System of Business Accounts (Sistema de Contas Integradas das Empresas, SCIE)

[3] Persistent exporters are defined as firms that were classified as exporting firms in each of the years 2010–12. OECD (2014) lists similar results based on manufacturing firm data for 2006–11.

Box 1. Portugal—The 2010–2012 Export Surge: Who Did It?

During 2010–12, nominal exports by manufacturing firms rose by about 19 percent (box table). The increase in manufacturing exports largely explains the increase in Portugal's overall exports during this period (firm level data for 2013 and 2014 are not yet available). One question is whether this surge in exports was due to firms that were persistent exporters during this period, or whether the combination of crisis and structural reforms induced many new firms (either newly set up or switching from non-exporting to exporting activities) to enter the export fray.

As a first pass, about 90 percent of the increase in exports is accounted for by persistent exporters. These firms also broadly maintained employment and nominal domestic sales levels during the crisis period 2010–12, while nominal value added declined by about 4 percent (ROEs of persistent exporters shrunk significantly during 2010–12, but remained positive).

Turning to the other firms, while these firms also saw a double-digit increase in their nominal exports, this took place from a much lower level. At the same time, their activity in terms of employment and nominal valued added shrunk significantly (ROEs of this firm group turned negative during 2010–12).

However, there was considerably dynamics underlying the net export performance of the group of other firms. The firm-level data suggest that firms that were newly established since 2010 and which were exporting in 2012 made a contribution of 0.2 billion to the 5.2 billion export increase during 2010–12. At the same time, already established firms that are not classified as persistent exporters increased their exports during 2010–12 by 2.0 billion, but this was offset by a 1.7 billion decline of exports by firms that exported in 2010 but were no longer classified as exporters in 2012. Thus, while the contribution to the export increase by new firms has been relatively small, there were substantial shifts into and out of export activities by other firms.

Portugal: Exports and Production of Manufacturing Firms, 2010–2012

Changes 2010-2012	Exports	Domestic sales	Value added	Employment
All firms				
Billion euros	5.2	-2.0	-1.8	
Percent	18.9%	-4.2%	-10.2%	-6.4%
Persistent exporters				
Billion euros	4.7	-0.1	-0.4	
Percent	19.1%	-0.4%	-4.4%	1.8%
Other firms				
Billion euros	0.4	-1.9	-1.3	
Percent	17.1%	-7.3%	-17.2%	-12.3%

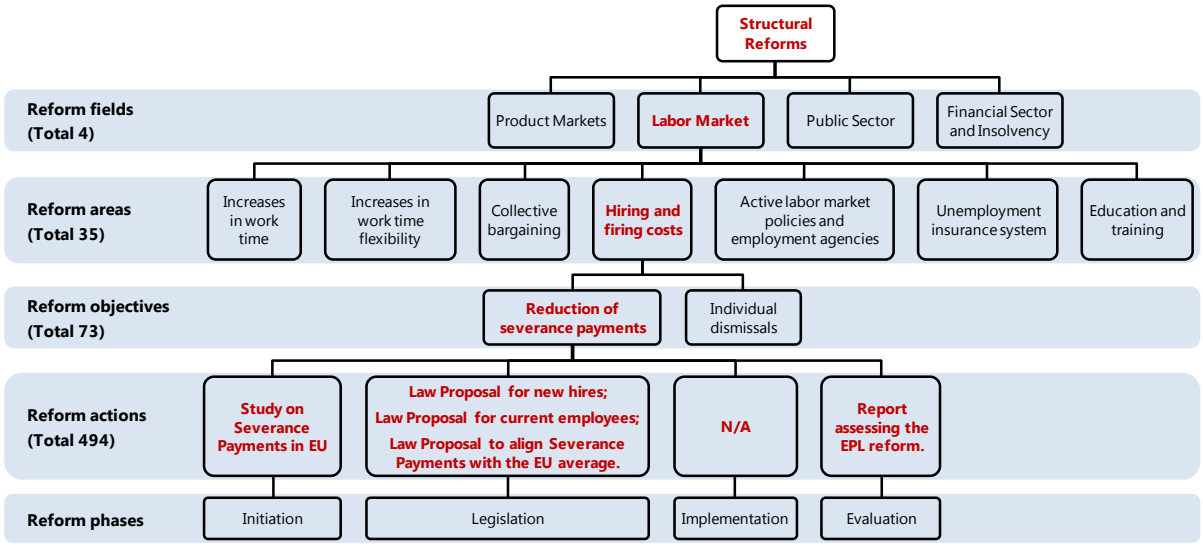
Source: IMF staff estimates based on data from the Integrated System of Business Accounts (Sistema de Contas Integradas das Empresas, SCIE)

D. Program's Structural Reform Agenda

11. Already before the crisis, successive governments initiated many structural reforms. Starting in the early 2000s, growth increasingly disappointed relative to expectations. In response, the need to implement more and deeper structural reforms became a constant theme of Portugal's economic policy discussions. As documented in successive *OECD Economic Surveys* before the crisis, policy advice typically called for educational reforms to raise skills, labor market reforms to ease restrictive employment protection rules, product market reforms to increase local competition, and a plethora of other structural reforms to reduce the cost of doing business due to complex and time-consuming administrative and legal procedures. In March 2011, still before the EU-IMF-supported program was agreed, the government proposed to parliament a structural reform agenda in the context of its fourth Stability and Growth Program for 2011–14 (PEC IV, 2011). Many of the PEC IV measures, particularly regarding privatization and fiscal consolidation, were later integrated into the adjustment program design.

12. The architecture of the program's structural reform agenda was extensive. The agenda was topped by four reform fields: (i) product market reforms; (ii) labor market reforms; (iii) public sector reforms; and (iv), financial sector and insolvency reforms (text chart). Within each of the four reform fields there were multiple reform areas, as exemplified in the text chart by the reform areas under the labor market rubric. Each reform area in turn was associated with one or more reform objectives. Finally, associated with a reform objective were a potentially large number of reform actions. These reform actions are defined as specific commitments in the program documents to take steps to move reforms forward along the following four reform phases: (i) to initiate; or (ii) to legislate; or (iii) to implement; or (iv), to evaluate structural reforms.

Portugal: Architecture of Structural Reforms – Example of Labor Market Reforms



13. The reform action count was high. On staff's count using the structural reform nomenclature set out in the text chart, 494 distinct structural reform actions were taken to achieve 73 reform objectives. Breaking down the number of reform actions by fields, about ½ of the measures focused on the public sector, about ⅓ on product markets, and the remaining actions were split between labor market reforms on the one hand and financial sector and insolvency reforms on the other hand (text table). Further breaking down the number of reform actions by phases, about ½ of the reform actions aimed at initiating or legislating actions, while about ⅓ of the actions focused on implementation actions.

Portugal: Structural Reform Actions by Phases

Reform phases / Reform fields	Actions	Initiation phase	Legislation phase	Implementation phase	Evaluation phase
Product markets	152	31	67	47	7
Labor market	51	13	15	15	8
Public sector	239	76	55	90	18
Financial sector and insolvency	52	11	11	26	4
All reform actions	**494**	**131**	**148**	**178**	**37**

14. The reform objectives can typically be linked to reducing production or transaction costs at the firm level. In general, reforms in the fields of product and labor markets can be associated with reducing unit costs of production, either by lowering prices of inputs or by raising productivity per unit of input (Table 1). On the other hand, reforms in the fields of public sector and financial sector and insolvency reforms can often be associated with reducing transaction costs. Some of the reforms are framed as having aimed at both reducing production and transaction costs.

15. The sheer range and high number of reform objectives and actions raise the question why the reforms in Table 1 were picked and why not others. From a pure social planner point of view, structural reforms should be picked to address all the distortions in the economy at the same time. This ideal, however, never applies. A more pragmatic social planner approach is to try to pick a limited number of reforms that address the most binding bottlenecks to competitiveness or growth (Hausmann et al. (2005)). But even this more pragmatic approach seems to presuppose a well-structured decision setting where there is a circumscribed set of decision makers (participants), well-defined and shared objectives (preferences), and a good and shared understanding of the link between policy changes and ultimate outcomes of the reforms (technology). However, decisions on structural reforms more often than not take place in a much less structured setting. The number of participants can be open and fluid, preferences of participants can be diffuse, the link between reform measures and desired outcomes is often complex if not highly controversial among participants. Moreover, when, how, and what

decisions are made can depend sensitively on whether good choice opportunities arise to connect solutions and problems from a large, pre-existing reservoir.[4] Such settings are likely to generate reform agendas that aim at a wide range of objectives, an approach that could, however, fall prey to the adverse second-best interactions highlighted by Hausmann et al. (2005).

E. Effectiveness of Structural Reforms: Firm Survey Evidence

16. Survey design. The survey was sent to non-financial firms at the beginning of March 2015, and it targeted a group of about 200 large firms and about 300 SMEs.[5] In line with the structural reform architecture discussed in the previous section, the survey covered the four reform fields, and the questions were formulated at the level of the reform areas (the annex lists the 34 areas and questions). For each reform area, respondents were asked to indicate the perceived impact of the reform on the competitiveness and growth prospects of the firm (no impact, some impact, significant impact) and the perceived urgency of more reform actions in a given reform area (no need, some need, and urgent need). Respondents also had the option for "no answer" in case they felt there was not enough information to assess the area reform. In addition, respondents had the option to provide written suggestions on the impact of reforms or the urgency of more reforms.

17. Survey responses. The response rate to the survey was 17.4 percent, which appears to be representative for a fairly comprehensive but voluntary firm survey. About half of the respondents were large firms, and about two thirds were exporting firms. Most of the responding firms had their main activity in the manufacturing sector (one third), followed by the trade and transportation sectors. The results reported in this section's two text tables average scores across firm's responses, standardized to the range -1 to +1. Colors indicating reform impact or urgency are assigned to scores based on four uniformly spaced intervals, where red reflects an average score below -0.5 (roughly indicating no impact of reform or urgent need of more reforms), orange a score between -0.5 and zero, light green a score between zero and 0.5, and dark green a score above 0.5 (roughly indicating significant impact of reform or no need of more reforms).

Perceived Impact of Structural Reform

18. Overall, the survey scores suggest that many reforms are perceived has having had some positive impact, with significant variations across reform fields. Perceptions were most positive regarding the impact of labor market reforms, and least positive as regards product market reforms (text table next page). The majority of public and financial sector reforms were

[4] Cohen et.al. (1972) proposed a model to study decision making in organizations characterized by these features.

[5] The list of large firms was compiled by staff based on publicly available data on large firms in Portugal. The list of SMEs was provided by the public association representing SMEs; the SMEs surveyed are considered "PME Líder" firms, i.e. SMEs with strong performance characteristics.

assessed as having had a positive impact. These overall perceptions seem to be robust across exporting and non-exporting firms, as well as across large firms and SMEs.

19. While product market reforms generally received low scores, labor market reforms scored well. None of the product market reform is perceived as having had a significant positive impact on firms' competitiveness. Reforms that aimed at reducing the cost of using railways and the cost of professional and other services received particularly low scores. As regards labor market reforms, exporters and SMEs responded that reforms in the areas of increasing work time flexibility, reducing the cost of hiring and firing, and active labor market policies had strong positive impacts. At the same time, reforms of collective bargaining and increasing the effectiveness of employment agencies received low scores.

20. Most public and financial sector reforms received similar, generally positive, although low scores. The highest scoring public-sector reforms concern the cost of paying taxes and investment incentives. Exporting firms were generally more positive on the impact of public sector reforms than non-exporting firms, while firm size seemed to make much less of a difference. As regards financial sector reforms, exporting firms again have more positive perceptions of the reforms than non-exporting firms. SMEs were particularly positive about the impact of reform measures providing alternative financing options.

Table 1. Firm Survey: Perceived Impact of Structural Reforms 1/

	Perceived impact of reforms			
Product market reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Licensing environment	-0.02	0.00	-0.06	0.03
Energy costs	0.06	-0.14	0.10	-0.12
Cost of telecommunication and postal services	-0.11	-0.14	-0.15	-0.10
Cost of road use	-0.16	0.19	-0.10	0.03
Cost of using railways	-0.23	-0.50	-0.14	-0.54
Cost of using ports	0.06	-0.24	-0.03	0.00
Cost of professional services	-0.26	-0.30	-0.43	-0.07
Cost of other services	-0.38	-0.30	-0.40	-0.28
Enforcement of competition	-0.22	-0.24	-0.21	-0.24
Labor market reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Increases in work time	0.24	0.00	0.10	0.21
Increases in work time flexibility	0.54	0.24	0.32	0.55
Collective bargaining	0.15	-0.18	0.05	0.03
Hiring and firing costs	0.38	0.29	0.32	0.38
Active labor market policies	0.27	0.19	0.12	0.38
Effectiveness of employment agencies	0.13	0.08	0.10	0.13
Public sector reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Effectiveness of central administration	0.21	0.07	0.13	0.19
Effectiveness of local administrations	0.08	0.04	0.02	0.10
Cost of paying taxes	0.55	0.50	0.53	0.53
Effectiveness of VAT refund	0.28	-0.04	0.22	0.13
Investment incentives	0.45	0.00	0.29	0.31
Payment on time by central administration	0.10	0.15	0.22	0.00
Payment on time by local administrations	0.15	-0.04	0.13	0.03
Payment on time by SOEs	0.07	0.09	0.08	0.07
Quality of services provided by SOEs	0.00	-0.10	-0.09	0.04
Privatization program	0.11	0.04	0.16	0.00
Effectiveness of labor courts	-0.08	-0.09	-0.03	-0.14
Effectivess of tax courts	0.06	-0.14	0.05	-0.07
Effectiveness of civil and commercial courts	-0.02	0.17	0.08	0.00
Effectiveness of alternatives to litigation	0.11	-0.04	0.15	-0.06
Financial sector and insolvency reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Efficiency of insolveny framework	0.15	-0.04	0.13	0.03
Debt restructuring framework (PER)	0.18	-0.17	0.11	0.03
Out-of-court debt restructuring framework (SIREVE)	-0.02	-0.27	-0.12	-0.10
Provision of alternative financing options	0.35	0.19	0.18	0.41
Efficiency of credit allocation by banks	0.30	0.31	0.31	0.30

[1/] Numbers indicate average scores across firms' responses, with scores standardized in the range -1 to +1. As regards perceived impact of reforms, firms had the choice between "no impact" (score = -1), "some impact" (score = 0), or "significant impact" (score = 1). As regards the perceived urgency of more reforms, firms had the choice between "no need" (score = 1), "some need" (score = 0), or "urgent need" (score = -1). Firms also had the option to use "no answer" in case they felt there was not enough information to assess the structural reform. Colors are assigned based on four uniformly spaced intervals as follows: red refers to a value below -0.5; orange to a value betwen -0.5 and 0; light green to a value between 0 and 0.5; and dark green to a value above 0.5.

Sources: Survey; and IMF staff estimates.

Perceived Urgency of More Structural Reforms

21. There was strong consensus across all types of firms that both public and financial sector reforms should be revisited or stepped up. Exporting firms and SMEs in particular saw an urgent need for additional reforms to increase the effectiveness of public administrations, both at the central and local levels, the effectiveness of the various courts of the justice system, to improve payments discipline of public sector entities, and to improve the functioning of the insolvency and corporate debt restructuring frameworks. Only privatization was seen as lower priority across firms.

22. Exporting firms also saw a pressing case for more reforms of product and labor markets. As regards product markets, exporting firms urged additional reform efforts in the areas of energy, road pricing, costs of railways, and enforcement of competition. As regards labor market reforms, exporters also perceived a relatively strong need for further reforms of hiring and firing costs and increasing the effectiveness of employment agencies. Non-exporters generally see less urgency in all these reform areas, while firm size seems to make little difference for perceptions.

F. Interpreting The Firm Survey Results

Three Objections to Using Firm Surveys to Assess the Impact of Structural Reforms

23. First, firm surveys may not always capture the actual outcomes of structural reforms. Respondents may not be aware of the actual reform outcomes but nevertheless have strong opinions. Respondents may also be willing to blame adversities that are due to factors internal to the firm, for example lack of managerial skills, to lack of progress on structural reforms. To mitigate these potential biases, first, the survey provided the option to decline answering a question if the respondent felt she lacked the information to assess the impact of or need for more reforms. At the same time, perceptions, whether they are rooted in actual reform outcomes or not, nevertheless may matter greatly for firms' decisions regarding job creation or investments. Second, the survey sample focused on large firms and relatively successful SMEs, and these firms are less likely to see reforms from a perspective distorted by their internal difficulties.

24. Second, some reforms may need more time to be perceived as having had an impact. This may in particular be the case for some of the public and financial sector reforms, whose effectiveness depends on changing deep-rooted behaviors on the sides of public administration, the justice system, regulators, or banks. In these cases, if firms perceive an urgent need for more reforms, this could also be consistent with reforms not having paid off so far, but they may still pay off in the future even without further reform actions.

Table 2. Firm Survey: Perceived Urgency of More Reforms 1/

	Perceived urgency of more reforms			
Product market reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Licensing environment	-0.33	-0.05	-0.31	-0.16
Energy costs	-0.41	-0.14	-0.34	-0.29
Cost of telecommunication and postal services	-0.06	0.21	0.20	-0.12
Cost of road use	-0.46	-0.23	-0.30	-0.47
Cost of using railways	-0.42	0.00	-0.31	-0.25
Cost of using ports	-0.27	-0.29	-0.11	-0.48
Cost of professional services	0.00	0.11	0.26	-0.23
Cost of other services	0.15	0.00	0.24	-0.08
Enforcement of competition	-0.38	-0.08	-0.21	-0.36
Labor market reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Increases in work time	0.11	0.45	0.43	0.02
Increases in work time flexibility	-0.31	-0.10	-0.22	-0.26
Collective bargaining	-0.30	0.19	-0.08	-0.23
Hiring and firing costs	-0.42	-0.26	-0.33	-0.40
Active labor market policies	-0.33	-0.13	-0.31	-0.22
Effectiveness of employment agencies	-0.37	-0.08	-0.31	-0.24
Public sector reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Effectiveness of central administration	-0.62	-0.50	-0.50	-0.66
Effectiveness of local administrations	-0.47	-0.56	-0.35	-0.66
Cost of paying taxes	-0.42	-0.04	-0.44	-0.14
Effectiveness of VAT refund	-0.33	0.04	-0.21	-0.21
Investment incentives	-0.53	-0.26	-0.46	-0.41
Payment on time by central administration	-0.58	-0.52	-0.44	-0.68
Payment on time by local administrations	-0.62	-0.56	-0.51	-0.69
Payment on time by SOEs	-0.64	-0.75	-0.55	-0.84
Quality of services provided by SOEs	-0.54	-0.39	-0.35	-0.64
Privatization program	-0.13	0.19	0.00	-0.06
Effectiveness of labor courts	-0.62	-0.41	-0.49	-0.62
Effectivess of tax courts	-0.63	-0.30	-0.41	-0.70
Effectiveness of civil and commercial courts	-0.60	-0.35	-0.45	-0.60
Effectiveness of alternatives to litigation	-0.63	-0.63	-0.51	-0.76
Financial sector and insolvency reforms	**Exporters**	**Non-exporters**	**Large firms**	**SMEs**
Efficiency of insolveny framework	-0.56	-0.41	-0.37	-0.69
Debt restructuring framework (PER)	-0.38	-0.29	-0.22	-0.48
Out-of-court debt restructuring framework (SIREVE)	-0.29	-0.21	-0.10	-0.43
Provision of alternative financing options	-0.39	-0.42	-0.39	-0.41
Efficiency of credit allocation by banks	-0.63	-0.54	-0.51	-0.68

1/ Numbers indicate average scores across firms' responses, with scores standardized in the range -1 to +1. As regards perceived impact of reforms, firms had the choice between "no impact" (score = -1), "some impact" (score = 0), or "significant impact" (score = 1). As regards the perceived urgency of more reforms, firms had the choice between "no need" (score = 1), "some need" (score = 0), or "urgent need" (score = -1). Firms also had the option to use "no answer" in case they felt there was not enough information to assess the structural reform. Colors are assigned based on four uniformly spaced intervals as follows: red refers to a value below -0.5; orange to a value betwen -0.5 and 0; light green to a value between 0 and 0.5; and dark green to a value above 0.5.

Sources: Survey; and IMF staff estimates.

25. Third, firms may have difficulties disentangling the effects of the economic crisis from the impact of the reforms. Firms may not see the pay-offs of reforms because low demand and other cyclical effects of the recession are masking the pay-offs. While this could have been a more serious concern at the height of the recession during 2011–12, at the time of the survey (March 2015) the recovery in output was already well established. Also, with the majority of the firms surveyed representing exporters, these firms were less affected by the sharp decline in domestic demand during the recession years 2011–12.

Interpreting Firms' Impact Responses

26. The perception of the impact of a reform on firms' competitiveness likely depends on three main factors. First, firms will likely judge a structural reform as relevant depending on the impact on its own production cost structure and on its transaction costs. If the cost impact of reforms is potentially large, it will likely be seen as a priority (bottleneck factor) by the firm. Second, structural reforms change formal or informal rules, which can range from changing parameters (for example, severance pay rates) to changing criteria (for example, licensing requirements) to changing organizational structures (for example, judicial maps). The impact of a structural reform will therefore also depend on the significance of the change in rules (deepness factor). And third, even if a given reform is highly relevant and the rule changes are significant, if the impact of the reform depends on implementation capacity and this capacity is low, the reform may still be perceived as having had little impact (capacity factor). Thus, for simplicity, the three factors determining the perceived impact may be thought as being linked multiplicatively:

Reform Impact = Bottleneck Factor x Deepness Factor x Capacity Factor

27. The survey responses, together with other information on the significance of rule changes, permit rough judgments on the role of the three factors in shaping firms' views. The survey responses on the urgency of more reforms can be informative regarding the relevance of a given reform. Combining this information with information on the significance of rule changes, the survey responses on the impact of structural reforms may allow inferring (using the multiplicative scheme outlined before) whether low implementation capacity is the reason for a perceived low impact of a reform.

Interpreting Firms' Responses on Product and Labor Market Reforms

28. The relatively low impact of product market reforms is likely to reflect the absence of deep reforms. Firms generally believed that reforms here had low impacts, but they, and particularly the exporting firms, also pointed to many reform areas as being highly relevant for their production costs. This would suggest that reforms were not deep enough, or, if the reforms were in fact deep, there were binding capacity constraints. Capacity constraints may indeed have played a constraining role in some areas, including energy policy, or reducing the cost of using ports (see Box 2). But, in general, the lack of deepness of reforms is likely more of a factor explaining the relatively low scores for product market reforms.

Box 2. Reducing Port User Cost: An Implementation Game in Progress

The port reform is of major importance for the competitiveness of firms. In 2013, Portugal shipped of all exports via ports 58 percent in tons and 37 percent in value. For some exporters, port user cost can reach 10 percent of production costs.

In 2012, a port reform was launched, with the objective to reduce user cost by 25-30 percent. Several actions were taken: (i) the adoption of a port labor law in February 2013; (ii) elimination of the TUP Cargo fee in January 2014; (iii) the start of the renegotiations of port concessions in April 2014; and (iv), the publication of the transport regulator by-laws in May 2014.

According to estimates by the authorities, a reduction of 16 percent in the port invoice costs was achieved during the period 2011–2013. However, this estimate is contested, and a private sector study pointed to a cut in user cost of only 2 percent. Notwithstanding the large gap between the two estimates, both are far from the objective to reduce user costs by 25-30 percent. The firm-survey responses also suggest that firms do not see major pay-offs from the port reform so far.

Why did the port reform not have a larger impact so far? Three reasons seem to stand out:

- *Slow implementation pace*: The transport regulator is still not operational; and negotiations with and among the trade unions, port authorities, and concession operators are not closed.
- *Lack of legal mechanisms*: For example, due to the lack of a legal mechanism to ensure the pass-through of the gains of efficiency and cost reductions, gains may stay with other players than the intended beneficiaries, especially exporting firms.
- *Lack of incentives*: The terms of the port concessions are essential to give the right incentives to both port authorities and concession operators. However, the renegotiations of concessions are still ongoing, with only one closed.

29. The relatively high positive impact of labor market reforms likely reflects the high relevance and parametric nature of these reforms. Many labor market reforms require little implementation capacity, and their impact therefore depends mainly on relevance and deepness of the reforms. Given the parametric nature of these reforms, they can directly and visibly affect unit labor costs, as illustrated by the work time flexibility reform. At the same time, capacity issues are likely to emerge as a constraint with regards to active labor market policies and the functioning of employment offices, and this may be reflected in the higher urgency flagged by firms for these reform areas.

30. The initial design of the program took note of the risk that product and labor market reforms may have only moderate and slowly emerging effects on production costs, especially for exporters. The risk that a large number of product and labor reform actions may not add up to meaningful change in the competitiveness of firms was highlighted at the beginning of the program. In response, the program included a fiscal devaluation measure to mimic the effects of real exchange rate devaluation. However, implementing a fiscal devaluation proved much more difficult than foreseen, and the fiscal devaluation option was abandoned about 1½ years into the program (Box 3).

Box 3. Fiscal Devaluation: A Structural Reform Too Far?

As part of the initial program design, the authorities committed to a major reduction in employers' social contributions to be financed by offsetting fiscal measures, including changing the structure and rates of VAT (MEFP, May 2011). This reform measure—a so-called fiscal devaluation—had the objective of boosting external competitiveness to mitigate the adverse effect of cutbacks in domestic demand on output and employment.

After two attempts to design and implement a fiscal devaluation, the measure was abandoned. In fact, the second attempt at designing a fiscal devaluation measure, announced in September 2012, triggered a mass demonstration in Lisbon that was attended by an estimated 500,000 demonstrators.

Conceptually at least, a fiscal devaluation can achieve exactly the effects of a real exchange rate devaluation assuming certain conditions are in place. It could thus be a structural reform tool that is superior to a large bundle of structural reforms that may in principle be able to deliver the same increase in external competitiveness, but where the timing and size of effects are surrounded by large margins of uncertainty.

Why did the fiscal devaluation measure encounter serious difficulties? Portugal's experience seems to hold four lessons:

- *Size of measure needed*: To have a significant impact on external competitiveness, large cuts in employers' contribution would have been needed. This raised questions about the integrity of financing of social security where contributions are generally linked to benefits, and the political acceptability of the needed offsetting fiscal measures.
- *EU rules as a constraint*: Mitigating the financing constraint by restricting the cuts in employers' contributions to tradable sector firms was clearly at odds with EU competition rules.
- *Sticky non-tradable prices*: A key assumption for making a fiscal devaluation work was that the cuts in employers' contributions would lead to reductions in non-tradable prices that would in turn lead to a reduction in intermediate input costs of the tradable sector. Given that high non-tradable prices were the result of uncompetitive structures in the first place, this was an assumption that was seen as doubtful by many participants in the debate on fiscal devaluation.
- *Political economy blowback*: Perhaps most surprising from the point of view of many observers was that a fiscal devaluation would be seen as highly unfair by both trade unions and employers.

Interpreting Firms' Responses on Public and Financial Sector Reforms

31. Firms seemed to perceive reforms that affect their transaction costs as especially relevant. Many of the public and financial sector reforms affect firms' transaction costs, for example in terms of predictability of their business environment (for example, effectiveness of public administrations and payment discipline of public sector entities) or in terms of enforcement of contracts (for example, effectiveness of justice system or the insolvency and corporate debt restructuring frameworks).

32. But these are also some of the reforms that are most demanding from the implementation capacity point of view. Some of the written answers to the survey indeed pointed to lack of implementation capacity as a bottleneck for the effectiveness of reforms. In particular, respondents seemed to distinguish between "reforms on paper" and reforms

accompanied by changes in behavior of the implementation agencies. As put by one of the respondents:

"Many legislative reforms were done, and perhaps there is no need for more reforms of this type. However, the effective implementation of reforms often fails. …. The lack of effective implementation may be the reason why reforms have so little or no impact on firms' competitiveness."

At the same time, the relatively positive feedback regarding tax administration reforms suggests that implementation capacity constraints in the public sector can be successfully overcome, although this requires time and persistence, as efforts to modernize and upgrade the functioning of the tax administration started well before the program.

Table 3. Portugal: Overview of Structural Reforms

4 Field Reforms (35 areas; 73 objectives; 494 actions)	Firm cost impacts
1. Product market reforms (10 areas; 20 objectives; 152 actions)	
Licensing environment (3 objectives; 26 actions)	
Reduce administrative burdens on firms (cutting red tape); improving the licensing regimes by changing its paradigm from ex-ante approach to ex-post compliance verification by the administration and reduction of approval timings; simplifying the spatial planning system and strengthening the role of state to avoid irrational expansion of urban perimeters and fostering urban renewal.	Transaction costs / information Transaction costs / decision-making
Energy costs (4 objectives; 44 actions)	
Liberalization of the electricity and gas markets; ensure the sustainability of the national electric system (eliminating the tariff debt by 2020); modify tax and energy policy instruments to ensure they provide incentives for rational use, energy savings and emission reductions; promoting competition in energy markets and to further integrate the Iberian markets (MIBEL and MIBGAS)	Production costs / unit intermediate input costs
Costs of telecommunications and postal services (2 objectives; 10 actions)	
Increase competition in the market by lowering entry barriers; strengthen power of the National Regulator Authority.	Production costs / unit intermediate input costs
Cost of rooad use (2 objectives; 5 actions)	
Adopt strategic plan to rationalize networks and improve mobility and logistic conditions; reduce the PPPs road costs.	Production costs / unit intermediate input costs
Cost of using railways (1 objective; 9 actions)	
Strengthen competition in railway sector and attack more traffic.	Production costs / unit intermediate input costs
Cost of using ports (1 objective; 6 actions)	
Reform the Port model to reduce the Port invoice in about 25-30%.	Production costs / unit intermediate input costs
Cost of professional services (1 objective; 14 actions)	
Remove barriers to entry in key professional regulated professions to increase competition.	Production costs / unit intermediate input costs
Cost of other services (1 objective; 13 actions)	
Reduce entry barriers to a wide range of service activities to increase competition.	Production costs / unit intermediate input costs
Enforcement of competition (2 objectives; 13 actions)	
Minimize rent-seeking behaviors by strengthen the powers of the competition authority and the sector regulators; eliminate special rights of the state in private	Production costs / unit intermediate input costs
Housing market (3 objectives; 12 actions)	
Boost rental market by revitalizing city centers; foster labor mobility; reducing incentives to household excessive debt.	Externalities
2. Labor market reforms (7 areas; 10 objectives; 51 actions)	
Increases in work time (1 objective; 1 actions)	
Reduce the unit labor costs at firms level.	Production costs/Unit labor costs
Increases in work time flexibility (1 objective; 2 actions)	
Ease working time arrangements to better accommodate the specificities of each firm.	Production costs/Unit labor costs
Collective bargaining (1 objective; 12 actions)	
Define clear criteria for the extension of collective agreements to promote wage adjustments in line with productivity at the firm level.	Production costs/Unit labor costs
Hiring and firing costs (2 objective; 10 actions)	
Reduce severance payments and change the individual dismissal rules to tackle labor market segmentation and ease the transition of workers across firms.	Production costs/Unit labor costs
Active labor market policies and effectiveness of employment agencies (1 objectives; 5 actions)	
Improve employability of the young and more disadvantaged categories.	Production costs/Unit labor costs
Unemployment insurance system (2 objective; 6 actions)	
Revise the unemployment system to reduce the risk of long-term unemployment, extending the eligibility to self-employees.	Production costs/Unit labor costs
Education and training (2 objectives; 15 actions)	
Improve the quality of secondary education, also addressing early school leaving and; improving vocational education and training to raise human capital quality and facilitate labor market matching.	Production costs/unit labor costs Externalities

Table 3. Portugal: Overview of Structural Reforms (concluded)

3. Public sector reforms (13 areas; 32 objectives; 239 actions)	Firm costs impacts
Effectiveness of the Public Administration (Central and Local) (6 objectives; 44 actions)	
Streamline the structure of the public administration at central and local government; review labor legislation of the public administration to bring it closer to the general labor code rules; prepare support information in a systematic manner containing updated baseline information on the organization and human resources for general government; regulate the creation and functioning of all public entities, namely foundations; reorganize the local administration (parishes); modify the public procurement code in order to ensure a transparent and competitive business environment while improving the efficiency of public spending.	Production costs / unit intermediate input costs Transaction costs / decision-making
Cost of paying taxes (3 objectives; 17 actions)	
Improve the tax collection; modernize the tax revenue services through internal reorganization of the services and strengthening its operational capacity; reviewing the tax regimes at corporate and personal level, promoting simplification at compliance level as well as, promoting competitiveness of the firms in Portugal.	Production costs / unit capital costs Transaction costs / decision-making
VAT refund (1 objective; 6 actions)	
Improve VAT cash management of firms.	Production costs / unit capital costs
Incentives to investment (1 objective; 2 actions)	
Create conditions for new productive investments.	Production costs / unit capital costs Production costs / decision-making
Payment on time by central administration (3 objectives; 39 actions)	
Clear all arrears at central administration level; streamline the budgetary process, with a medium-term fiscal strategy; strengthen risk management, accountability,	Production costs / unit capital costs
Payment on time by local administration (2 objectives; 8 actions)	
Clear all arrears at Municipal level; enhancing the local financing legal regime, namely the early-warning systems on excessive debt and insolvency situations.	Production costs / unit capital costs
Payment on time by the SOEs (1 objective; 4 actions)	
Clear all arrears on SOEs, specially hospitals SOEs.	Production costs / unit capital costs
Quality of services of SOEs (2 objective; 21 actions)	
Enhance efficiency of the existing SOES and restoring its financial sustainability, refocus SOEs activities on core public policy objectives.	Production costs / unit intermediate input costs
Privatization Program and PPPs (2 objectives; 11 actions)	
Continue the privatization process to help reducing government financing needs, stimulate competition; containing the fiscal risks resulting from the large use of PPPs.	Production costs / unit intermediate input costs
Effectiveness of labor, civil and commercial courts (4 objectives; 28 actions)	
Reducing the number of pending court cases (backlog); increasing efficiency by restructuring the court system, and adopting new court management models; streamline and speed up civil case processing in the courts; creation of specialized courts.	Production costs / unit labor costs Transaction costs / enforcement
Effectiveness of tax courts (1 objective; 2 actions)	
Reducing the number of pending cases in the tax courts (backlog).	Transaction costs / enforcement
Effectiveness of alternatives to litigation (1 objective; 4 actions)	
Create and strengthening of the alternative dispute resolution means to facilitate out-of-court mechanisms.	Transaction costs / enforcement
Health care system (5 objectives; 54 actions)	
Improve efficiency and effectiveness in the health care system, by inducing a more rational use of services and control of expenditures; generate additional savings in the area of pharmaceuticals to reduce the public spending on pharmaceutical to 1 per cent of GDP in 2013 (in line with EU average); increasing operational efficiency of the units and cost control in the services provided; generate additional savings in hospital operating costs; increase transparency in the health sector.	Externalities
4. Financial sector and insolvency reforms (5 areas; 11 objectives; 52 actions)	
Efficiency of insolvency framework (1 objective; 8 actions)	
Reinforce the corporate and household insolvency frameworks to facilitate effective rescue of viable firms and support rehabilitation of financially responsible individuals.	Production costs / unit capital costs Transaction costs / decision-making / enforcement
Debt restructuring framework (PER) (1 objective; 1 action)	
Reinforce the corporate debt restructuring frameworks to facilitate effective rescue of viable firms.	Production costs / unit capital costs Transaction costs / decision-making / enforcement
Out-of-court debt restructuring framework (SIREVE) (1 objective; 1 action)	
Reinforce the corporate debt restructuring frameworks to facilitate effective rescue of viable SMEs.	Production costs / unit capital costs Transaction costs / decision-making / enforcement
Provision of alternative financing options (2 objectives; 15 actions)	
Improve financing alternative instruments; facilitate access to finance SMEs.	Production costs / unit capital costs
Efficiency of credit allocation by banks (6 objectives; 27 actions)	
Deleveraging the PT banks in an orderly fashion within the Euro system framework; adequate capitalization of banks and monitor bank solvency; maintaining liquidity in the banking sector; bring closure to BPN and streamline CGD; strengthening banking regulation & supervision; promote financial stability and protect depositors.	Production costs / unit capital costs Transaction costs / decision-making

Appendix I. Survey Questions

From the structural reforms listed below, please indicate the impact of each in the competitiveness and growth perspective of your company, as well as the need for implementing more reforms. In case you are not familiar with or have no opinion about some of the reforms, please select the option N/A.

For each reform, please indicate:

- Impact: no impact, some impact, significant impact.
- Urgency of new reforms: no need, some need, urgent need.

A. Product Market Reforms

Licensing environment. For example: simplification and changing of the licensing paradigm from ext-ante approach to ex-post control by the public administration (zero licensing; legal regime for commerce and services activities; industrial licensing; touristic licensing; environmental licensing).

Energy costs. For example: liberalization of the electricity and gas markets; reduction of the tariff debt.

Cost of telecommunication and postal services. For example: lowering mobile termination rates; new telecom regulators by-laws (ANACOM); privatization of CTT.

Cost of road use. For example: renegotiation of the existing roads PPPs.

Cost of using railway. For example: reduce operational costs of transport SOEs (e.g. REFER and CP); review and render a more effective yield management on long-distance passenger ticket prices.

Costs of using ports. For example: elimination of the TUP Carga; new labor port work regime.

Cost of professional services. For example: new framework law for professional bodies that shall cover professional bodies such as lawyers, engineers or doctors.

Costs of other services. For example: transposition of the Services Directive that envisages reducing barriers to entry the market of new companies and service providers (e.g. real estate brokerage and travel agencies).

Enforcement of competition. For example: strengthen the role of the Competition Authority; creation of specialized competition court.

B. Labor Market Reforms

Increase in work time. For example: uncompensated increase in working days (public holidays and vacation days).

Increase in work time flexibility. For example: bank of hours; reduction in over-time pay.

Collective bargaining. For example: revised criteria for extending collective agreements.

Hiring and firing costs. For example: new rules for individual dismissals; reduction in severance payments.

Active labor market policies. For example: *Impulso Jovem* program; *Estímulo 2013* program.

Effectiveness of employment agencies. For example: support measures to find new jobs undertaken by the employment agency (IEFP).

C. Public Sector Reforms

Effectiveness of central administration. For example: increase from 35 to 40 weekly working hours; PREMAC (reduction of the management positions and administrative units).

Effectiveness of local administration. For example: reduction of public servants; reduction of the local SOEs.

Cost of paying taxes. For example: plan to combat the tax fraud and evasion; new VAT e-invoicing system.

Effectiveness of VAT refunds. For example: cash accounting VAT regime; VAT refund procedures for exporters.

Investment incentives. For example: extraordinary credit for investment; corporate income tax code.

Payment on time by central administration. For example: commitment control law; settlement of arrears program.

Payment on time by local administration. For example: local settlement of arrears program (PAEL); regional and local financing laws, including the Municipality Support Fund for distressed municipalities.

Payment on time by SOEs. For example: settlement of arrears program for hospitals SOEs.

Quality of services provided by SOEs. For example: new framework law for SOEs; improvement of SOEs operational results.

Privatization program. For example: privatization program with the disposal of shares in BNP, ANA, CTT, EDP, REN, Galp Energia, Caixa Seguros; elimination of the golden shares.

Effectiveness of labor courts. For example: new code of civil procedure.

Effectiveness of tax courts. For example: special team for dealing with tax courts cases for amounts higher than 1 million Euros; tax arbitrage procedures.

Effectiveness of civil and commercial courts. For example: new code of civil procedure; improvement of enforcement procedures and strengthening of enforcement agents by-laws.

Effectiveness of alternatives to litigation. For example: new arbitration law; strengthening the justices of the peace regime.

D. Financial Sector and Insolvency Reforms

Efficiency of insolvency framework. For example: insolvency code; role of the insolvency administrators.

Debt restructuring framework (PER). PER (corporate debt restructuring framework).

Out-of-court debt restructuring framework (SIREVE). SIREVE (out-of-court corporate debt restructuring framework).

Provision of alternative financing options. For example: new guarantee lines *PME Crescimento* and *PME Investe* to facilitate access to credit; new commercial paper legal regime.

Efficiency of credit allocation by banks. For example: strengthen supervisory role of Bank of Portugal; bank recapitalization law.

Please indicate below, if there is any other reform not listed above that you consider as a priority for the competitiveness of the firms in Portugal.

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PORTUGAL'S REGAINED MARKET ACCESS: OPPORTUNITIES AND RISKS[1]

Questions, Answers, and Possible Objections

What are the questions this chapter tries to answer? What is behind the recent decline in Portuguese bond spreads? More generally, what has been behind the evolution of sovereign bond spreads in euro area countries over the past 15 years? To what extent can the recent decline be taken as a signal from the market that current economic conditions are sustainable? Do the variables that affect spreads play different roles in times when spreads are elevated? What are Portuguese spreads likely to be going forward, and with what implied interest costs to the government?

Why is answering these questions important for this Article IV consultation? There are some signs that reform momentum may be slowing. Stock imbalances, especially public debt, remain at historically high levels while recent positive economic performance may be largely cyclical. It is important to better understand market assessment of Portuguese fundamentals to evaluate whether the economy is on the right track. To the extent that the evolution of global considerations can be assessed as unusually and temporarily low, the extra costs of normalization help to understand the urgency of continued fiscal consolidation and growth promoting structural reforms.

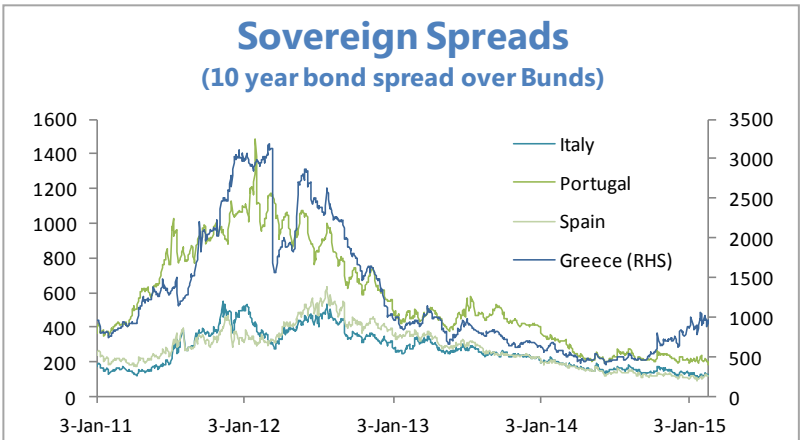
What are the answers to these questions? The decline in spreads from their peak in January 2012 has been principally determined by global and pan-euro factors, a view supported by a variety of approaches to the data. More generally, global factors offset the rise in country specific pressures on the spread in the run-up to the crisis, obscuring the buildup of imbalances. Global financial turbulence caused spreads to peak in 2009, but negative economic performance drove the rise in spreads through the European debt crisis. Most explanatory variables affect spreads similarly in cases of high and low spreads, but those most closely associated with sovereign default risk rise in significance at higher spreads. The present context of high investor risk tolerance and the support from QE provide a unique opportunity to consolidate the fiscal position and lock in growth with reforms, which could provide interest cost saving of more than one percent of GDP annually when conditions normalize.

What could be possible objections to these answers? The model specification is ad hoc and largely based on statistical fit considerations (¶29). Portugal's economic conditions have improved markedly under the adjustment program, but since fundamentals ultimately depend on expectations of the future, they are not well approximated by past realizations of economic variables. For example, some market participants, including primary dealers, are confident that Portuguese economic conditions have improved significantly (¶32-33). Related to the previous objection, there are also changes in fundamentals that are difficult to approximate even in principle, such as the changes in strength of the European backstop, and these changes are not captured by the model specification (¶34). Finally, alternative specifications, particularly those that allow for the possibility of multiple equilibria, may imply that the market stress during the crisis is a thing of the past and the conditions of the pre-crisis 2000s may be expected to prevail over the medium term (¶30).

[1] Prepared by Luciana Juvenal and Kevin Wiseman. We thank Carla Soares (Banco do Portugal), Cristina Casalinho and José Miguel Costa (both IGCP), and participants of a seminar at the Banco do Portugal for helpful comments.

A. Introduction

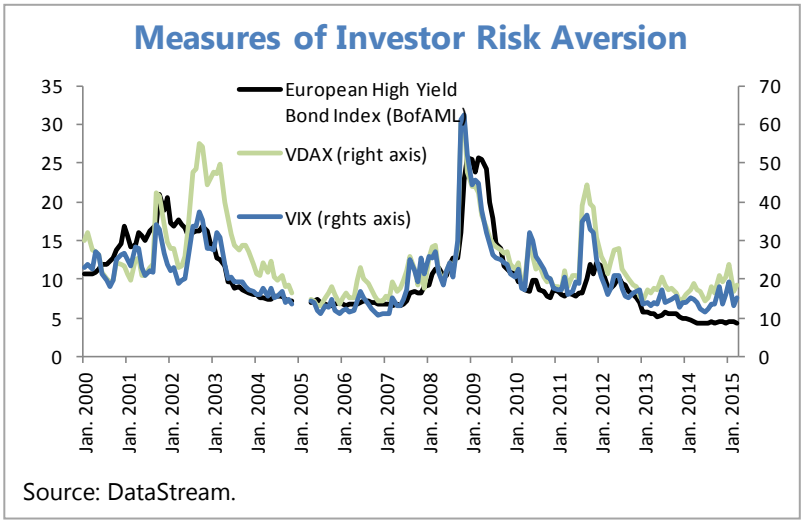
1. The reduction in sovereign bond yields and spreads of stressed European economies has been highly correlated. In the winter of 2012, Portuguese spreads (over benchmark German bunds) on 10 year sovereign bonds peaked at 1,200 basis points. Italian and Spanish spreads rose that spring, halting with the ECB's demonstrated willingness to support sovereign bond markets. Since that time the spreads of stressed European economies have largely dovetailed, though Greece has recently deviated. The correlation in spreads suggests perceptions of ECB willingness to prevent the crisis from spreading, rising global risk appetite, and a search for yield have been a common force behind these developments.



Source: Bloomberg.

2. Portuguese fundamentals have improved over the same period. At the time of peak spreads Portugal was engaged in a program of economic reform which has halted the economic deterioration. Since 2012, budget deficits have declined, output growth has returned, and the current account has gone into surplus. In the process Portugal has regained the confidence of markets and now borrows at increasingly favorable rates. Nevertheless the legacies of the crisis including significant debt burden on public and private balance sheets remain, while unemployment is still elevated though declining.

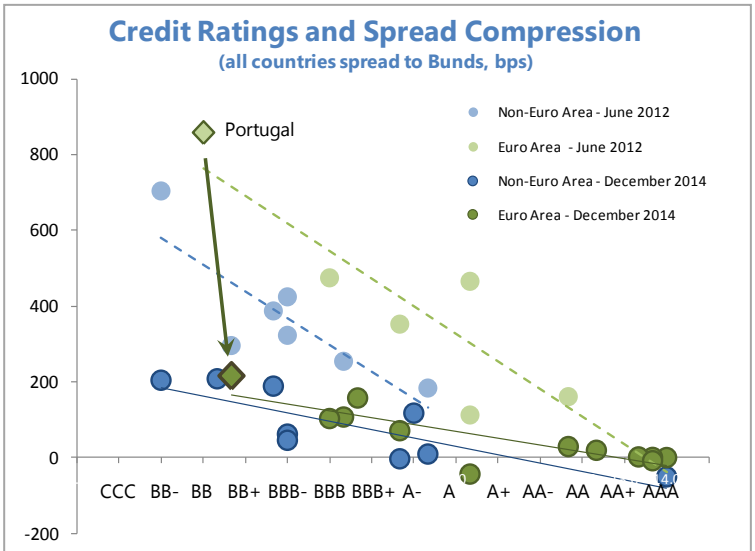
3. Whether low yields are driven by global demand conditions and euro area policy or improved country-specific fundamentals is critical for policy makers. If local factors are driving the decline, policy makers can take market confidence as a sign that they have achieved their goals. If global and pan-European factors are responsible for a greater share of the impact then domestic policy makers must do more. Measures of investor risk aversion, such as market volatility and spreads on high yield bonds,



Source: DataStream.

are at or near historic lows. A return to average conditions would imply a significant rise in these factors.

4. The relationship between bond spreads and salient country-specific fundamentals indicate that global and pan-European factors play a dominant role. Plotting the average ratings of the three major agencies against 10 year bond spreads indicates a large shift downward in spreads, independent of ratings changes, suggesting that more than individual improvement is at play. Belgium averaged a AA rating but its ten year bonds traded by as much as 180 basis points above the yield on German bunds in June 2012. As of the end of March, all euro area countries but Greece were trading below that mark. Correlations in stressed economy spread movements on dates of large movements in the Portuguese spread since 2012 further supports the view that global factors are driving spread declines.



Source: Bloomberg.

5. An analysis of spread dynamics over the past 14 years across euro area countries also emphasizes the role of global factors. To get a sharper view of how spreads evolve, we regress spreads, measured at a monthly frequency, on a range of variables comprising both domestic economic factors and global and pan-European factors. Our baseline estimate indicates that 80 percent of the explained fall in bond yields is due to global and pan-European factors. These estimates indicate that local factors alone would imply a bond spread in the range of 325 to 450 basis points.

6. There are clear implications for Portuguese policy makers. 2014, and to a lesser extent 2013, saw low ebbs in volatility only matched in the last 25 years by the years preceding the crisis. The global conditions underlying this moment of easy borrowing occur infrequently and do not last. A return to more normal spreads, possibly in tandem with a normalization of the Bund yield, would mean a significant increase in debt service over the medium term. Similar problems face heavily indebted corporates who have proven slow to reduce their debt burden in the current favorable borrowing environment. There is a further risk that conditions could normalize quicker than anticipated as the US achieves monetary liftoff. Portugal may be somewhat insulated by its sustained commitment to maintaining a long average maturity on its debt, currently at 8.8 years.

B. A Brief History of Euro Area Bond Spreads and Related Studies

7. Spreads and spread differentials narrowed rapidly in the run-up to euro adoption and in the mid 2000s amid ample liquidity and a search for yield, with little differentiation across sovereign debt securities despite differences in cyclical and structural conditions. Sovereign spreads are generally thought to be driven by common factors linked to risk appetite (Sgherri and Zoli, 2009; D'Agostina and Ehrmann, 2013). Bernoth and others (2004) show that EMU spreads in this period are driven by common risk factors, but also reflect default and liquidity risk, concluding that differentiation across euro area countries has not been weakened by the monetary union. Beirne and Fratzscher (2013) find that empirical models that focus on country-specific economic conditions generally do a poor job in explaining sovereign risk in this pre-crisis period.

8. Spreads widened sharply when the crisis hit in two waves: the first wave saw a reversal in market sentiment due to contagion from the US subprime crisis, followed by a second wave with the unfolding of the euro area debt crisis as fiscal stimulus and financial sector support jeopardized debt sustainability. Investors reappraised solvency risk as fiscal deficits and debt ballooned (Mody, 2009; Caceres et al, 2010). In contrast, De Grauwe and Ji (2013) find that surging spreads in stressed countries, with the exception of Greece, were primarily due to negative market sentiment rather than domestic economic factors.

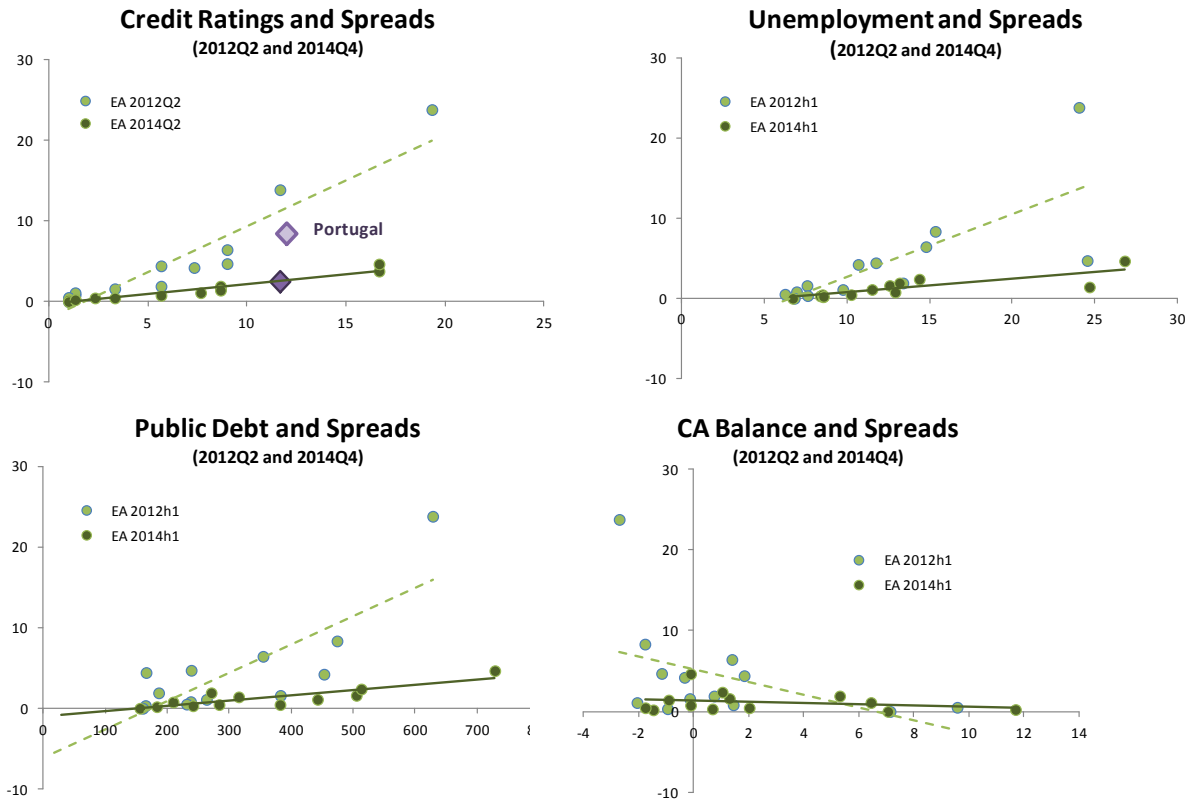
9. Spreads narrowed again as tail risks receded, in the wake of a more credible European backstop, accommodative monetary policy, and rising investor risk appetite. Recently QE announcement and purchase effects have further supported bond prices. These effects have benefited the highest spread countries the most, with stressed country bonds outperforming other euro area bonds. These effects are also partially due to correlated improvements in individual country economic performance.

C. Empirical Analysis

Stylized Facts

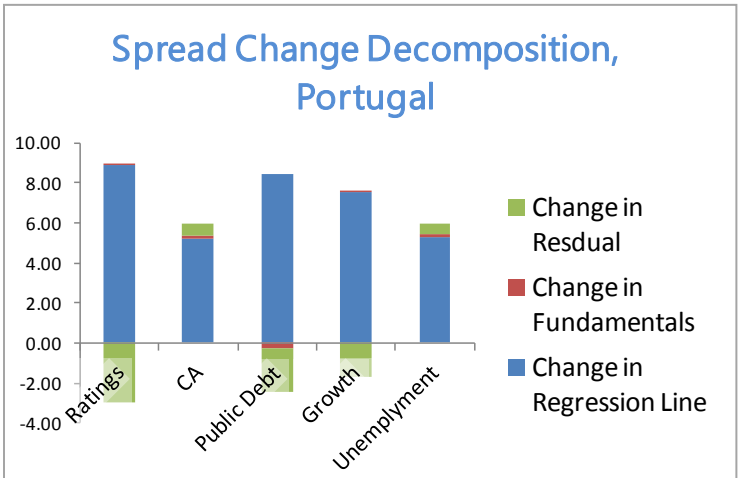
10. The interest penalty for poor fundamentals declined significantly across the board since the height of the crisis. Taking sovereign credit ratings as an overall measure of the strength of the country-specific fundamentals which determine the interest rate, we find that this relationship has flattened significantly over time. In the case of Portugal, spreads improved dramatically over the two years since the thick of the crisis in the summer of 2012, but ratings have only improved marginally, with Moody's raising its rating by two notches but no change from Fitch or S&P. Figure 1 considers the changes through the summer of 2014 for comparability with other data but the ratings story has persisted. Portuguese spreads are down more than 50 basis points (25%) since last summer while there have been no ratings revisions.

Figure 1. Declining Spreads Across a Range of Variables



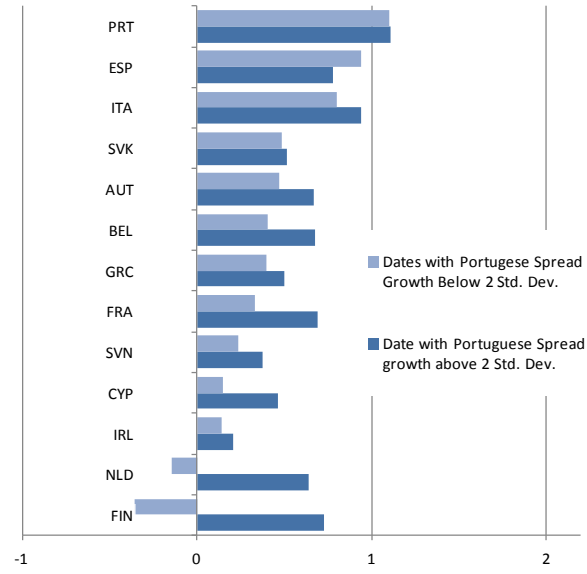
Sources: Bloomberg, and IMF Staff Estimates.

11. The same pattern holds across a range of country-specific fundamental variables. Where clear univariate relationships hold for macro variables, the same pattern of flattening relationships and diminished penalties for poor fundamentals is observed. In unemployment, public debt, and the current account balance these reductions have occurred with little to no change in the overall distribution of observations. Decomposing the change in Portuguese spreads into a) the change from moving along the trend line as fundamentals improve, b) the change due to the shift in the trend line, and c) the change in the deviation from the trend line indicate that none of the fundamentals in question explain much of the decline individually in the case of Portugal (see below for analysis of their joint effects).



Sources: Bloomberg, and IMF Staff Estimates.

12. News analysis can help evaluate whether cross-country correlations in economic variables are driving the change in trend lines. For any individual scatter plot, improvement in other variables in all countries could be driving the reduction in slopes. One way to assess this possibility is to analyze trading days which saw the largest movements in spreads. While country-specific economic variables may evolve together over time, news about their evolution occurs on specific dates. Data announcement dates are not harmonized across countries thus country-specific news days should result in the biggest spread changes and be uncorrelated with spread changes in other countries, while global and pan-European variables should hit all countries on the same day.



Sources: Bloomberg, and IMF Staff Estimates.

13. Analysis of daily Portuguese spread changes since the summer of 2012 suggests that spread declines were driven by global factors. Country-specific news was behind some of the biggest movements, the political crisis in the summer of 2013 being one example. Yet broadly speaking other high risk country spreads have dovetailed, falling when the Portuguese spread fell the most and rising when it rose the most. Spain and Italy are particularly strongly linked, as the confidence in the European backstop drove the ebb and flow of perceived sovereign risk with similar timing.

Panel Regressions

14. Panel regressions confirm the role of global and pan-European factors in the rise and subsequent decline of spreads across Europe. The baseline regression, covering 1,620 observations over 13 countries in the euro area (Appendix Table 1, regression 6), implies that more than three quarters of the explained rise in Portuguese spreads but less than 20 percent of their subsequent decline is due to country-specific fundamentals. We restrict the sample to euro area countries to maintain a clear distinction between local and global variables, where monetary policy variables can be considered global variables in this context.

15. A variety of standard macroeconomic variables were included in these estimates. The baseline regression contains most major macroeconomic variables, covering direct indicators of debt affordability and sustainability, indirect indicators of overall economic health and the state of the output gap, and specific indicators for local financial stress. Public debt as a percentage of GDP and the fiscal balance were included as direct measures of default risk. These variables are widely used in the literature on sovereign default risk (see, for example,

Caceres and others, 2010 and Manganelli and Wolswijk, 2009). Both are statistically significant in explaining the evolution of spreads in our regressions with the expected signs. Public debt is the single most important variable in the estimates, explaining most of the country-specific rise in spreads.

16. A number of macroeconomic variables have explanatory power as signals of the state of the economy. GDP growth is naturally the most prominent among these indicators. The current account balance reflects external sustainability of the economy as a whole – indicating whether both the public and private spheres together continue to take on debt – as private sector distress quickly becomes a fiscal problem. Inflation serves a dual purpose reflecting both economic health and real return considerations. Unemployment is perhaps the least directly related to financial markets, but it reflects the economic slack in the economy, indicating both the output gap and stress on political consensus. Its tight relationship with spreads in the univariate context (figure [1] is retained in the multivariate panel regressions even as other indicators of economics health are included. The financial stress indicator is an index available from the IMF which reflects the state of financial sector including bank funding stress. It captures country specific distress in the financial sector.[2] An average of major agency ratings was also included (see Manganelli and Wolswijk (2009). Though these rating are strongly correlated with spreads, their explanatory power as a summary of macro conditions is diminished when the rest of the macro conditions we included in the regression, and statistically insignificant.

17. Global variables were selected to capture aspects of global risk aversion and global liquidity. Our baseline estimates include the now-standard VIX market volatility index of the S&P as well as a Europe-specific index of the effective yield on high yield bonds (Bank of America Merril Lynch), both logged. The ECB policy rate is also included and acts as a global variable in this sample. Other global measures have not been included due to possible reverse causation (ECB balance sheet), or high correlation with one or more other regressors (VDAX, EURIBOR). These measures do a good job capturing greater volatility and risk aversion at the peak of the financial crisis but do less well in capturing market perceptions about the size and strength of the eventual European backstop.[3] An alternative specification which includes the first principal component of the spreads of stressed European economies was also estimated (Appendix Table 1, regression 7). These results must be interpreted with care as correlated fundamentals across these countries would affect the component as measured.

18. The estimation is carried out on the log spreads. One critical feature of the scatter plots above is that the plotted regression lines rotate with market conditions rather than shifting up and down uniformly for all values of variables. A decline in market risk aversion reduces the spread in Portugal by much more than a low-spread country. This behavior suggests examining a

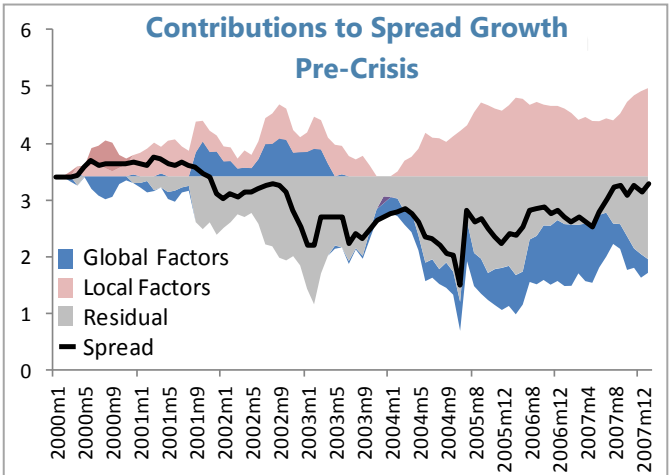
[2] Another study using a comparable set of explanatory variables to explain spreads is Geyer and others (2004).

[3] For a summary of risk appetite indices see Illing and Meyer, 2005.

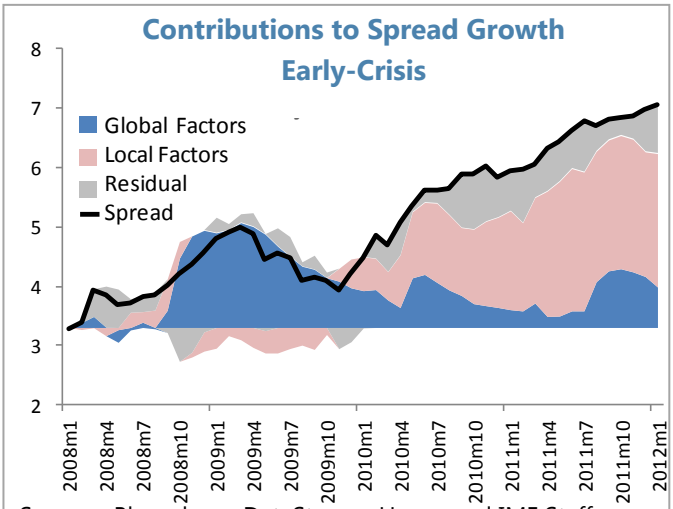
multiplicative model of spreads by taking the log of spreads as the independent variable. In practice the parameters of the regression on log spreads are much more tightly estimated and robust to variable inclusion than those from a regression on spreads in levels (see Appendix Table 2, regression 4 for comparison).

19. The negative effects of local factors in the run-up to the crisis were obscured by positive global factors. Spreads were broadly flat between the beginning of the decade and the end of 2006. Country-specific economic variables alone would have tripled the spread over this period, led by rising unemployment and debt. They were offset, however, by low volatility and risky bond yields. In suppressing spreads these factors kept borrowing costs low, encouraging excessive debt in the public and private sector in Portugal and elsewhere, setting the stage for the crisis.

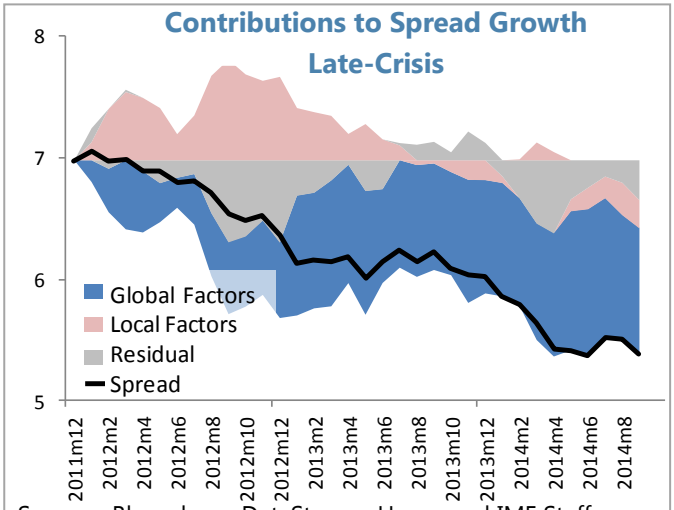
20. While initially driven by the financial disruption, unraveling country-specific economic conditions drove the peak yields of the sovereign debt crisis. Spreads hit a local peak in 2009 in the depths of the global financial crisis, but declined through 2009 as volatility spikes subsided. Portuguese spreads began growing again in late 2009 as the real effects of the financial crisis took hold. Between the beginning of 2008 and the time the spreads peaked in January 2012, about two thirds of the rise in log spreads, and more than three quarters of the explained change, is due to Portugal-specific factors. As Portugal saw its 10 year bond yields peak in January 2012, the VIX was significantly lower than in January 2010 and even high yield bonds in Europe were only 20 percent higher.



Sources: Bloomberg, DataStream, Haver, and IMF Staff Estimates.



Sources: Bloomberg, DataStream, Haver, and IMF Staff Estimates.



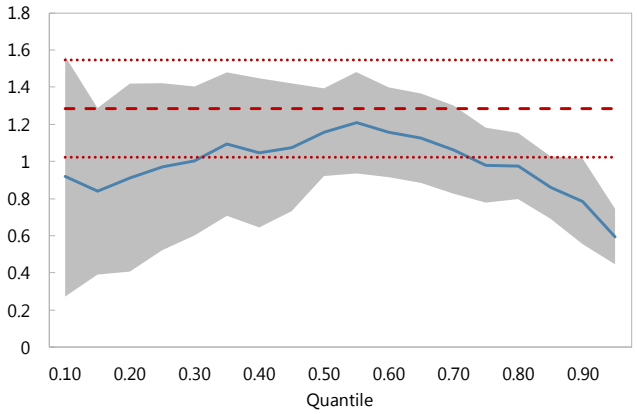
Sources: Bloomberg, DataStream, Haver, and IMF Staff Estimates.

21. The recent reduction in spreads has been driven by global factors. Local factors have seen some improvement since the end of 2011, led by improvements in the current account balance, but only enough to account for 14 percent in the decline in log spreads. Improvements in global factors explained 65 percent of the decline and more than eighty percent of the explained decline, with volatility and high risk European bond yields both declining significantly. Regressions specifications including the first principal component of stressed European economy spreads yield even more dramatic results, according nearly 90 percent of the decline from peak to global factors.

22. Estimates are broadly robust to a number of alternative specifications. In addition to changes in the explanatory variables, alternative specifications included using only Portuguese data or expanding the sample to non-euro area countries (Appendix Tables 1 and 2). Results for a similar specification but with the level of spreads as the dependent variable were also estimated. The baseline specification is preferred for its tighter identification of robust regression coefficients with intuitive signs and for its natural and transparent application in assigning contributions from local and global factors

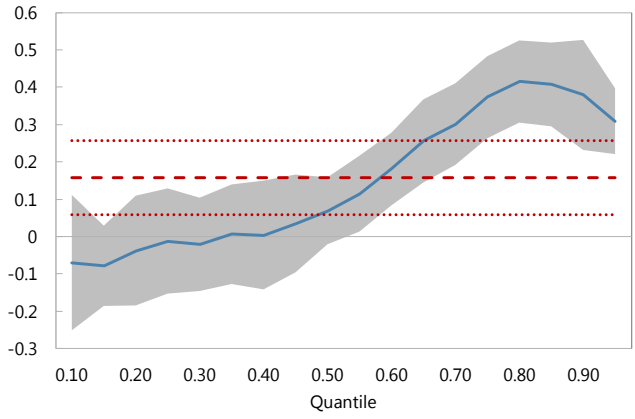
Quantile Regressions

23. Extending our analysis to quantile regressions allows us to assess how the determination of spreads varies across high-spread and low-spread observations. Policy makers and market participants have suggested that markets are worried about different issues in the cases of high and low sovereign credit risk. The method of ordinary least squares yields a linear estimate that approximates the conditional mean of the dependent variable given certain values of the explanatory variables. By contrast, quantile regressions (Koenker and Basset, 1978) allow us to estimate and conduct inference tests on a whole range of conditional quantile functions. The central estimate at the 50th percentile, for example, is a special case which minimizes the sum of absolute errors. Moving away from the median, the method describes the sensitivity of spreads to the explanatory variables at different points in the distribution of spreads. The combination of estimated conditional quantile functions offers a more complete and nuanced picture of how covariates influence the location and shape of the entire distribution of the response variable (Koenker and Xiao, 2006). This method may be a considered a more flexible approach than those which view the market as switching between a small number of states.



Note: The blue line shows the quantile regression coefficients and the shaded area denotes the confidence bounds. The OLS estimate with the confidence intervals are in red.
Sources: Bloomberg, DataStream, Haver, and IMF Staff Estimates.

24. While most explanatory variables have broadly consistent effects, some fundamentals exhibit different behavior in high versus low spread environments. We perform quantile regression estimations for the log spreads using the same explanatory variables in our baseline specification for Portugal and the other stressed European economies.[4] The role of the volatility index and public debt are instructive. Results indicate that the volatility index is statistically significant and meaningful across the whole range of quantiles. This is consistent with the finding that global factors are the main drivers of spreads at all levels. Similar results hold for Greece and Spain. Interestingly, public debt to GDP is not statistically significant for spread quantiles below the median (equivalent to a spread of 40 basis points). However, it is a significant driver of spreads for high spreads observations, with peak potency for spreads above 250 basis points. This squares with greater market sensitivity to measures of near-term default risk and debt sustainability. A similar pattern occurs for the current account deficit and other near-term debt sustainability indicators.



Note: The blue line shows the quantile regression coefficients and the shaded area denotes the confidence bounds. The OLS estimate with the confidence intervals are in red.
Sources: Bloomberg, DataStream, Haver, and IMF Staff Estimates.

25. Similar results hold in other high-spread countries such as Greece. For Spain, we observe a similar response for the volatility index but public debt to GDP is not a significant driver of spreads across the ensemble of quantiles. This could be partly driven by the fact that global factors explain most of the spread fluctuations. By contrast, for Ireland and Italy, the quantile regressions are centered around the least squares results and no specific pattern emerges in the determination of spreads for high and low spread environments.

Prospects Over the Medium Term

26. Spreads are now below the levels implied by Portuguese economic conditions. Macroeconomic variables, led by the debt level, remain worse than they were the last time Portugal enjoyed its present borrowing costs, while global factors are very favorable relative to their historical averages. The baseline specification implies that the 10 year spread to Bunds would be 422 basis points under the most recently available Portuguese fundamentals but with global factors at historical averages, more than 270 basis points above its value at end-March

[4] We cannot run the quantile regressions on a panel of countries because they require a balanced panel, which forces us to lose a large number of observations. Therefore, we perform them on individual countries.

2015. Even the regression specification involving no global factors points to undershooting in spreads (Appendix Table 1, first regression), yielding a point-estimate of 327 basis points at the end of the sample.

27. The current period of low investor risk aversion along with the effects of QE provide a unique opportunity. A positive confluence of events has provided a window of opportunity to pursue further fiscal consolidation in a less turbulent environment. Structural reforms designed to lock in higher potential GDP and growth rates should be deepened. Simulations suggest that a consolidation and reform scenario which reduces debt by twelve percent of GDP could reduce interest payments by nearly 1¼ percent of GDP over medium term.

D. Potential Objections

28. The baseline panel regression is a purely statistical model which has not been designed to capture predictions from a theoretical framework. A model based on a rigorous theory of sovereign spread determination would have provided theoretical grounds for both the specification choice and the inclusion of explanatory variables. The intention of the model presented was to cast a wide net in terms of potentially meaningful economic variables to avoid reducing the explanatory power of domestic economic conditions by exclusion. The relatively stylized fixed effects approach permits a straightforward decomposition of contributions from measured economic series. Variables were retained based in part on goodness-of-fit considerations. The literature provides a number of alternative specifications, with significant variety in specification and explanatory variables.

29. Assuming that the relationship between explanatory variables is the same in periods of calm and periods of market turmoil may be unrealistic. If markets switch back and forth between a pooling equilibrium and a separating equilibrium then dummy variables for these states or a regime switching model may be viewed as a more appropriate specification. We do not explore a model of this kind in our analysis, but the quantile regression approach provides some advantages along these lines. The results present a more continuous approach to analyzing how forces change with spread levels. While some variables do vary with spread quantile, most are broadly consistent. Starker risk-on / risk-off models would typically predict more dramatic interest rates during the next risk-off episode than those presented as a normalization scenario here.

30. Individual economic conditions clearly matter in the relative spreads across countries. Even as spreads have ebbed and flowed, countries whose fundamentals were in worse condition saw higher spreads. But this fact is also reflected in the point estimates of our regressions and does not contradict the relative importance of global factors. Global factors are common across countries and cannot explain differences between their spreads in logs. The fact that there are significant changes in the differences between these spreads in levels but not in

their rank order over time points to a multiplicative model in which global factors are at times playing a lead role.

31. Fundamentals in Portugal have improved markedly since the peak of the crisis. The return of durable real growth, the achievement of a current account surplus, and fiscal consolidation in Portugal has been substantial. Nevertheless the stock imbalances engendered by the crisis remain daunting, as discussed in the Article IV Staff Report. The estimates point to the central role of debt to GDP as driving the elevated spreads implied by domestic economic conditions. While the net contribution of flow variables is down from 2008, led by the dramatic improvement in the current account balance, they were not sufficient to offset the effect of debt accumulation.

32. Markets may be more attuned to a perceived turn-around in economic conditions than their current levels. The return of market access in the case of Portugal appeared concurrent with the moderation in debt growth and significant fiscal consolidation. It is possible then that the differences in the variables in question – signaling a turn-around, might better explain market sentiment? We experimented with including the first differences of both the current account and unemployment in the specification, but they were not statistically significant. When used to replace unemployment and the current account balance, these variables did not have statistically or economically significant coefficients and the R2 of the regression declined. When included along with their respective levels in the regression their inclusion has almost no effect on other regression coefficients while their own estimated coefficients have only marginal effects on the decomposition.

33. Perceptions of program ownership, innovations in cash and debt management, and changes in investor composition are not captured in these estimates. While the estimates presented here focus on macroeconomic variables, other considerations may have been more important to investors. Political will and perceived commitment to the governments' reform program could have been motivating the decline in spreads post-peak. These variables are hard to measure in a comprehensive and comparable way, while the estimates presented here explain much of the variation in spreads across countries and time. The improvement of several cash and debt management factors – the accumulation of sizeable cash buffers, the smoothing of the redemption profile, and increase in the average debt duration – were not included due to data availability, but likely has some effect on investor confidence. The estimates also do not factor in Portugal's recent success in attracting a more diversified and lower-risk-tolerance investor base. This is properly considered an outcome of greater investor risk sentiment and the global hunt for yield, especially in the salient case of central European pension funds, rather than an explanatory variable.

Table 1. Spreads, Global Variables, and Fundamentals

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Global factors							
Log of European high yields bond index		1.344***			0.720***	0.720***	0.668***
		(0.164)			(0.168)	(0.168)	(0.132)
Policy rate		-0.274***	-0.069	-0.161**	-0.242***	-0.242***	-0.267***
		(0.082)	(0.090)	(0.080)	(0.078)	(0.078)	(0.070)
Log of VDax			0.679***				
			(0.115)				
Log of Vix				1.418***	0.870***	0.870***	0.266***
				(0.151)	(0.121)	(0.121)	(0.102)
Periphery principal component							0.438***
							(0.103)
Indicators of default risk							
Public debt in percent of GDP	0.166***	0.153***	0.161***	0.144***	0.146***	0.146***	0.090***
	(0.034)	(0.026)	(0.027)	(0.025)	(0.025)	(0.025)	(0.033)
Fiscal balance in percent of GDP	-0.067***	-0.048***	-0.059***	-0.043**	-0.042**	-0.042**	-0.028**
	(0.020)	(0.018)	(0.019)	(0.017)	(0.017)	(0.017)	(0.011)
Rating average	0.070	0.135*	0.087	0.105*	0.125*	0.125*	0.053
	(0.051)	(0.071)	(0.064)	(0.061)	(0.067)	(0.067)	(0.037)
Indicators of economic health							
Real GDP growth rate	-0.076***	0.036**	-0.042**	-0.012	0.023	0.023	0.023
	(0.023)	(0.017)	(0.019)	(0.014)	(0.017)	(0.017)	(0.016)
CPI inflation rate eop	0.208***	0.206***	0.197***	0.187***	0.194***	0.194***	0.178***
	(0.040)	(0.029)	(0.028)	(0.024)	(0.028)	(0.028)	(0.029)
Unemployment rate	0.137**	0.155**	0.141**	0.136**	0.147**	0.147**	0.088***
	(0.057)	(0.062)	(0.064)	(0.056)	(0.059)	(0.059)	(0.018)
External sector sustainability							
Current account balance in percent of GDP	-0.114***	-0.134***	-0.122***	-0.107***	-0.121***	-0.121***	-0.076***
	(0.028)	(0.027)	(0.028)	(0.026)	(0.027)	(0.027)	(0.026)
Financial sector indicator							
Financial stress index	0.085***	0.061***	0.068***	0.022	0.033	0.033	0.050***
	(0.024)	(0.020)	(0.023)	(0.022)	(0.022)	(0.022)	(0.017)
Constant	-1.448***	-4.129***	-3.452***	-5.056***	-5.121***	-5.121***	-1.159
	(0.486)	(1.066)	(1.017)	(1.065)	(1.105)	(1.105)	(0.767)
Number of observations	1,620	1,620	1,620	1,620	1,620	1,620	1,411
Adjusted R2	0.597	0.669	0.616	0.672	0.681	0.681	0.739
R2	0.599	0.671	0.619	0.674	0.683	0.683	0.741

Notes: Country fixed effects are included in all regressions. The dependent variable is the log of spreads. ***, ** , * indicate significance at one, five and ten percent levels, respectively.

Table 2. Robustness Checks

	(1)	(2)	(3)	(4)
Global factors				
Log of European High Yields Bond Index	0.330	0.720***	1.313***	101.879**
	(0.257)	(0.168)	(0.161)	(44.987)
Log of Vix	0.925***	0.870***	0.476***	13.895
	(0.166)	(0.121)	(0.149)	(26.447)
Policy rate	-0.050	-0.242***	-0.159***	-8.284
	(0.067)	(0.078)	(0.048)	(6.086)
Indicators of default risk				
Fiscal balance in percent of GDP	-0.058***	-0.042**	0.024	-4.260
	(0.021)	(0.017)	(0.015)	(3.022)
Public debt in percent of GDP	0.053	0.146***	0.160***	-13.891
	(0.076)	(0.025)	(0.042)	(11.082)
Rating average	0.247**	0.125*	0.254***	98.265***
	(0.115)	(0.067)	(0.059)	(34.856)
Indicators of economic health				
Real GDP growth rate	-0.024	0.023	0.145***	-9.658
	(0.022)	(0.017)	(0.024)	(6.736)
CPI inflation rate eop	0.050	0.194***	0.101***	32.827***
	(0.053)	(0.028)	(0.028)	(9.835)
Unemployment rate	0.101*	0.147**	0.078*	5.260
	(0.060)	(0.059)	(0.045)	(9.766)
External sector sustainability				
Current account balance in percent of GDP	-0.080**	-0.121***	-0.155***	-11.599*
	(0.039)	(0.027)	(0.018)	(6.301)
Financial sector indicator				
Financial stress index	0.015	0.033	-0.033*	-9.137*
	(0.018)	(0.022)	(0.017)	(5.061)
Constant	-2.434*	-5.121***	-6.505***	-358.421***
	(1.360)	(1.105)	(0.479)	(137.393)
Number of observations	2,103	1,620	166	1,620
Adjusted R2	0.557	0.681	0.950	0.668
R2	0.559	0.683	0.954	0.670

Notes: Colum (1) shows the results for an extended subsample of countries including EA and non EA countries. Column (2) is our baseline regression for EA countries only. Column (3) runs the regression for Portugal only and column (4) replicates the baseline on the level of spreads instead of the log of spreads. ***, ** , * indicate significance at one, five and ten percent levels, respectively.

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STATUS OF FISCAL ADJUSTMENT AND CHALLENGES AHEAD[1]

Questions, Answers, and Possible Objections

What are the specific questions this chapter tries to answer? How was the fiscal adjustment under the program designed and implemented? How could a more growth-friendly debt reduction be achieved, providing fiscal space for targeted fiscal measures to support growth? Is additional public investment spending warranted to support growth? How can fiscal policy contribute to corporate deleveraging, higher employment, and improving the skills composition of the labor force?

Why is answering these questions important for this Article IV consultation? High public indebtedness remains a significant vulnerability, with only a gradual decline projected over the medium-term under staff's baseline scenario. Further fiscal adjustment is essential to accelerate the downward trajectory of public debt, and minimize scope for a significant worsening of debt dynamics, should downside risks materialize. While growth has resumed, the recovery is projected to be modest, creating a challenge for policymakers to balance the need for further fiscal adjustment with the potentially negative implications for growth.

What are the main answers to these questions? Fiscal consolidation achievements were substantial, but largely relied on revenue measures and capital spending reductions (¶6 to ¶10). Spending growth has proven difficult to contain across levels of government, and the adoption of expenditure targets and institutional reforms would help underpin spending rationalization (¶11 to ¶15). Identifying specific policy measures to rein in spending will be critical, with a focus on public sector wages and pensions (¶16 to ¶26). Targeted tax policy measures could help to address bottlenecks to growth created by high corporate indebtedness and labor slack (¶27 to ¶33). While there is little fiscal space for scaling up public investment to support growth, education reform can have a positive impact on the skills composition of the labor force (¶34 to ¶39). In order to sustain reform momentum, the authorities need to institutionalize fiscal reform management and move toward a more policy-oriented approach (¶40 to ¶42).

What could be possible objections to these answers? The government faces significant legal constraints to implementing a more expenditure-oriented fiscal adjustment. While further expenditure rationalization is needed, defining adjustment in structural terms would not provide a useful operational target given considerable uncertainty in estimating potential output. Expenditure rationalization should better account for generational equity issues; the burden of adjustment so far has been heavily oriented toward the current workforce.

[1] Prepared by Maximilien Queyranne (FAD) and Matthew Gaertner (EUR). The authors would like to thank Marco Cangiano, David Coady, and Ruud de Mooij (all FAD) for helpful suggestions, and the authorities for useful comments.

Portugal has made significant progress in its fiscal consolidation, overcoming structural and legal challenges, in the context of a sharp fall in output. Still, the debt-to-GDP ratio remains high (130.2 percent of GDP at the end of 2014), with the pace of economic recovery projected to be modest. Over the medium-term, the authorities face the challenge of balancing the need for further fiscal adjustment to reduce debt vulnerability, with the potentially negative implications for growth.

This SIP takes stock of fiscal consolidation under the Fund-supported Extended Arrangement from 2011–14, and proposes measures to increase the productivity of spending and make space for targeted reforms aimed at promoting higher competitiveness and growth. Institutional processes to manage the implementation of fiscal reforms should also be enhanced to deliver more efficient spending going forward.

Status of Fiscal Adjustment

A. Build-up of Imbalances Prior to the Crisis

1. An expansionary fiscal policy and the materialization of fiscal risks led to a rapid run-up in Portugal's public debt since 2007. Gross public debt nearly doubled from 2006 to 2014, when it reached 130 percent of GDP. About two-thirds of this increase has been due to fiscal deficits—the result of loose fiscal policies since euro adoption, and adverse interest rate differentials. The global financial crisis aggravated the fiscal position, as stimulus policies led the deficit to reach 11.2 percent of GDP in 2010 in the context of low growth.

2. A significant expansion of social spending over the last decade was at the root of the fiscal deterioration. The fiscal space created by the decrease in sovereign yields as Portugal moved into the euro area was more than offset by permanent spending increases; public expenditure increased by more than 9 percentage points of GDP over the period from 2000–2010. In particular, spending on social benefits rose sharply, reaching 20.3 percent of GDP in 2012, up from 12.2 percent of GDP in 1995.[2]

3. The deterioration of the fiscal position was accompanied by aggressive off-budget spending, leading to a buildup of substantial contingent liabilities. Portugal adopted one of the largest PPP programs in the world, with cumulative investment of 15 percent of GDP; on average, this implied higher fiscal deficits by roughly 1 percent of GDP over the period in which these concessions were granted (1995–2010). Similarly, the state-owned-enterprise (SOE) sector expanded greatly, often to circumvent stricter policies applied to the general government entities, minimizing the short-term impact on the deficit and debt indicators. In the aftermath of the global financial crisis, the financial imbalances accumulated in SOEs and PPPs led to the reclassification of a number of these entities within the general government, adding over 10 percent of GDP to the stock of public debt.

[2] Approximately 3 ppts of GDP is attributed to the reclassification of hospitals in the general government.

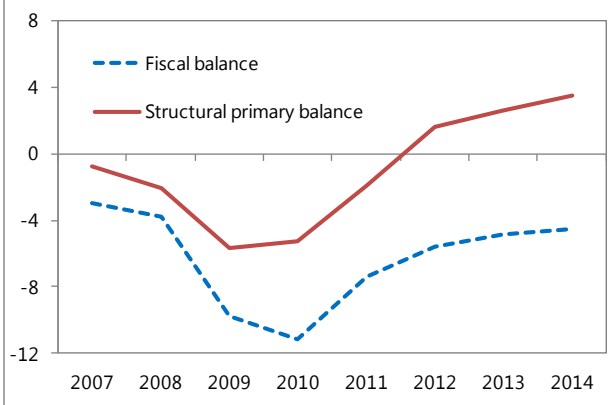
B. Program Intervention and Implementation to Date

4. The strategy under the Fund-supported Extended Arrangement envisaged a sharp fiscal consolidation. This was primarily designed to restore market confidence through a credible front-loading of measures. The fiscal path was built on the SGP objectives of stabilizing debt through a sharp improvement in the primary balance, and achieving a fiscal deficit of 3 percent of GDP by 2013, compared to 9.1 percent of GDP in 2010 (according to ESA95).

5. An ambitious fiscal structural program was also adopted to support the consolidation efforts. Reforms aimed at streamlining the functioning of the public sector in order to reduce fiscal risks. Priority was given to: (i) better monitor and reduce arrears, and strengthen commitment controls to prevent expenditure overruns; (ii) design sub-national government financial arrangements; (iii) enhance the management and reporting of fiscal risks arising from PPPs and SOEs, and; (iv) reinforce tax compliance and modernize tax and customs administration.

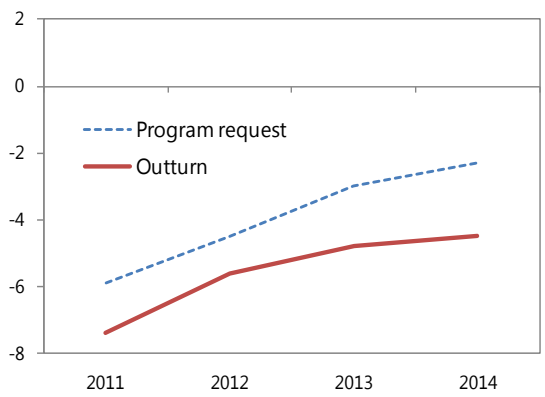
6. Portugal made significant progress in its fiscal consolidation efforts over the period of the program. The government has achieved primary structural adjustment of about 8.7 percent of GDP since 2010, despite weaker-than-expected economic activity and less favorable tax and social contribution bases - which were partly accommodated through recalibrations of the program targets. As a result, Portugal has achieved a significant structural primary surplus since 2012, and a significant reduction in the overall fiscal deficit. However, this was still short of original program objectives.

Fiscal Balances
(percent of GDP)



Sources: INE and IMF staff estimates.

Overall Fiscal Balance
(percent of GDP)



Sources: INE and IMF staff estimates.

7. The fiscal adjustment effort has relied to a larger extent on revenue measures than originally planned. The original program request in 2011 focused on the unsustainable level of expenditure and envisaged an adjustment based primarily on expenditure consolidation; three-fourths of the planned fiscal consolidation from 2011–2013 was expected to come through an across-the-board spending adjustment. However, efforts to reduce the public wage bill and rein in pension expenditures have been hindered by recurrent adverse rulings by the Constitutional Court (CC). As a result, the authorities relied to a larger extent on revenue-based measures to achieve program targets, with nearly half of the 8.7 percent of GDP structural primary adjustment achieved from 2011–2014 coming from higher revenue.

8. The bulk of the spending consolidation came from capital spending, while current spending proved more difficult to reduce (Table 1)**.** General government capital spending was reduced by about 3 percent of GDP under the adjustment program (2010–2013), while current spending continued to increase (1.4 percent of GDP). Non-interest current spending declined by 0.7 percent of GDP from 2010–13 thanks to reductions in public sector wages and intermediate consumption. However, these savings were partially offset by further increases in social benefits, which rose by 1.7 percent of GDP.

9. From a functional perspective, the reduction in spending was concentrated in the economic and security sectors (Table 1). Between 2010 and 2013, savings in the security sector and economic sector (driven by a sharp decline in transport spending) exceeded total expenditure reduction. Cuts in health (mainly on medical products and outpatient services) and education (particularly on primary and secondary education) were fully offset by higher social protection spending, driven by public pension outlays. General public services outlays significantly increased on the back of higher debt service payments.

Table 1. General Government Spending by Economic and Functional Classifications

	2008	2009	2010	2011	2012	2013	Difference (2013-2010)	
	(percent of GDP)						(ppts of GDP)	(share of total exp consolidation (%))
Economic classification								
Total expenditure	45.3	50.2	51.8	50.0	48.5	50.1	-1.7	100.0
Current spending	41.6	46.1	46.5	46.5	46.0	47.9	1.4	-82.4
Compensation of employee	13.1	14.0	13.7	12.8	11.8	12.4	-1.3	76.5
Goods and services	5.5	6.2	5.9	6.0	5.6	5.7	-0.2	11.8
Interest payments	3.1	3.0	2.9	4.3	4.9	5.0	2.1	-123.5
Subsidies	0.6	0.7	0.7	0.7	0.6	0.6	-0.1	5.9
Social benefits	16.7	18.8	18.6	18.9	19.5	20.3	1.7	-100.0
Other expense	2.6	3.4	4.7	3.8	3.6	3.9	-0.8	47.1
Capital spending	3.7	4.1	5.3	3.5	2.5	2.2	-3.1	182.4
Functional classification								
Total expenditure	45.3	50.2	51.8	50.0	48.5	50.1	-1.7	-41.2
General public services	6.1	7.1	8.2	8.5	9.1	9.0	0.8	-47.1
Defence	1.3	1.5	2.0	1.3	1.2	1.1	-0.9	52.9
Public order and safety	1.8	2.0	2.1	2.3	2.1	2.2	0.1	-5.9
Economic affairs	4.7	4.8	5.0	4.0	2.8	3.4	-1.6	94.1
Environment protection	0.6	0.6	0.6	0.5	0.4	0.4	-0.2	11.8
Housing and community ame	0.9	0.9	0.7	0.6	0.6	0.7	0.0	0.0
Health	7.2	7.9	7.3	6.8	6.5	6.7	-0.6	35.3
Recreation, culture and religi	1.1	1.1	1.1	1.0	0.9	1.0	-0.1	5.9
Education	6.8	7.4	7.7	7.3	6.5	6.8	-0.9	52.9
Social protection	15.0	16.9	17.1	17.7	18.2	18.9	1.8	-105.9
Other	-0.2	0.0	0.0	0.0	0.2	-0.1	-0.1	5.9

Sources: Eurostat (ESA 2010) and IMF staff calculations

10. Debt sustainability considerations remain a significant constraint on fiscal policy. On current policies, assuming limited structural adjustment after 2015, gross public debt would remain at 121 percent of GDP by 2020; even assuming a structural adjustment of ½ percent of GDP per year, in line with the European Treaty on Stability, Coordination, and Governance (SGP) framework, public debt would still remain about 112 percent of GDP. The associated sizable gross financing needs and continued substantial macro-fiscal risks will require further consolidation and limit the scope for active fiscal policies to support growth.

11. However, there is considerable scope to re-orient the composition of spending to be more supportive of growth. Despite the large fiscal adjustment achieved in recent years, spending consolidation has been uneven across levels of government. Real primary spending growth has outpaced real output growth for all levels of government since 2000, particularly in the social security sector (Table 2), highlighting the role of weak expenditure control in the build-up of fiscal imbalances prior to the crisis. By comparison, real growth in primary spending in euro area countries has been broadly in line with real output growth over the same period.

Table 2. Primary Spending in Portugal and the Euro Area by Levels of Government

(percent of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2000-2013 Change	2010-2013 Change
	Nominal primary spending in percent of nominal GDP															
Central Government																
Portugal	29.3	30.2	30.0	31.3	32.3	32.8	31.3	30.2	30.4	34.4	36.1	32.8	31.2	32.4	3.0	-3.7
Italy	20.1	22.1	21.8	21.7	21.8	22.2	22.8	22.1	22.2	25.8	25.0	23.8	24.2	24.6	4.5	-0.4
EU-18	19.7	21.1	21.2	21.4	21.3	21.4	20.5	20.3	20.9	23.5	22.7	20.8	21.3	20.9	1.2	-1.8
Local Government																
Portugal	5.9	6.3	6.4	6.3	6.2	6.4	6.4	6.5	6.9	7.3	7.4	6.7	6.1	6.6	0.6	-0.8
Italy	13.5	14.1	14.4	14.4	14.9	15.0	14.9	14.3	14.8	16.2	15.5	14.7	14.6	14.6	1.1	-0.9
EU-18	10.3	10.4	10.6	10.8	10.8	10.7	10.1	10.0	10.2	11.2	10.3	10.0	9.9	10.0	-0.3	-0.4
Social Security Funds																
Portugal	9.3	9.7	9.5	10.1	10.4	10.7	10.8	10.6	11.0	12.3	12.4	12.5	13.4	13.7	4.4	1.4
Italy	16.2	16.0	15.6	16.3	16.4	16.5	16.5	16.8	17.4	19.0	19.0	19.0	19.6	20.2	4.0	1.1
EU-18	23.3	23.3	23.1	23.4	22.7	22.6	21.1	20.7	21.2	23.3	21.9	21.7	22.1	22.3	-1.0	0.5
	Real growth in primary spending														Average over 2001-2013	2010-2013 Change
Central Government																
Portugal	…	4.9%	0.2%	3.3%	5.1%	2.3%	-3.2%	-1.0%	0.6%	9.9%	6.9%	-10.7%	-8.0%	2.3%	1.0%	-2.4%
Italy	…	12.3%	-1.4%	-0.1%	2.0%	2.8%	4.8%	-1.5%	-0.8%	10.1%	-1.8%	-4.2%	-0.3%	-0.6%	1.6%	-1.7%
EU-18	…	8.6%	1.0%	1.1%	-4.2%	2.2%	-2.4%	0.7%	1.8%	7.6%	-1.8%	-7.5%	1.3%	-2.2%	0.5%	-2.5%
Local Government																
Portugal	…	8.2%	2.0%	-1.9%	0.3%	3.1%	1.8%	4.8%	6.6%	2.3%	3.0%	-10.7%	-12.8%	6.5%	1.0%	-3.5%
Italy	…	6.5%	2.4%	0.0%	5.2%	1.1%	1.7%	-2.7%	2.2%	3.7%	-2.6%	-4.9%	-2.7%	-2.1%	0.6%	-3.1%
EU-18	…	2.4%	3.1%	1.7%	-3.7%	0.5%	-3.7%	0.6%	1.5%	4.3%	-5.9%	-2.3%	-2.0%	0.0%	-0.3%	-2.6%
Social Security Funds																
Portugal	…	6.1%	-0.7%	4.9%	4.9%	3.4%	3.0%	0.5%	3.4%	8.7%	2.8%	-1.0%	3.7%	1.1%	3.1%	1.7%
Italy	…	0.4%	-1.8%	4.5%	2.0%	1.6%	2.1%	3.6%	2.4%	3.2%	1.9%	0.3%	0.7%	1.0%	1.7%	1.0%
EU-18	…	1.4%	-0.5%	1.8%	-6.6%	1.1%	-5.1%	0.0%	1.1%	5.4%	-4.7%	-0.1%	0.8%	0.9%	-0.3%	-0.8%
	Real growth in GDP														Average over 2001-2013	2010-2013 Change
General Government																
Portugal	…	1.9%	0.8%	-0.9%	1.8%	0.8%	1.6%	2.5%	0.2%	-3.0%	1.9%	-1.8%	-3.3%	-1.4%	0.1%	-1.1%
Italy	…	1.8%	0.3%	0.2%	1.6%	0.9%	2.0%	1.5%	-1.0%	-5.5%	1.7%	0.6%	-2.3%	-1.9%	0.0%	-0.5%
EU-18	…	2.1%	1.0%	0.7%	2.3%	-3.7%	3.2%	3.0%	0.5%	-4.5%	2.0%	1.6%	-0.7%	-0.5%	0.5%	0.6%

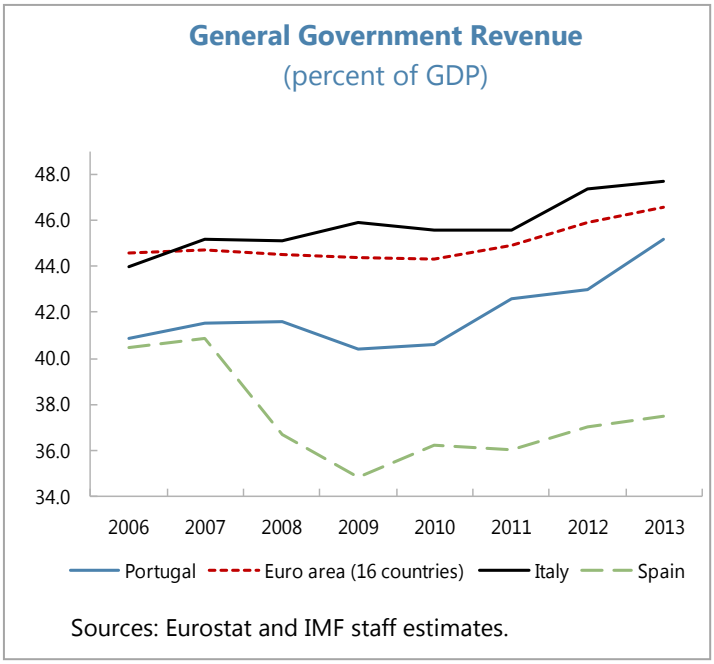
Sources: Eurostat and IMF staff estimates.

Note: Spending by levels of government includes transfers across levels of government, which are netted in general government data.

C. Creating Fiscal Space for Growth-Enhancing Measures

General Government Expenditure Targets

12. The introduction of multi-year real primary expenditure targets would help to underpin a fiscal adjustment based on spending rationalization. Empirical evidence suggests that spending rules are associated with expenditure containment, higher primary balances and have a higher likelihood of compliance than other fiscal rules.[3] This would help mitigate spending pressures, and ensure that future adjustment focuses on spending reform rather than further revenue measures, given that Portugal's tax burden has risen at twice the pace of the euro area, and significantly faster than other large southern European countries.[4] In addition, excluding interest payments from the expenditure rule would neutralize the impact of shifts in financial market conditions on interest costs and help to ensure that savings from favorable current market conditions are applied to debt reduction.



Sources: Eurostat and IMF staff estimates.

13. Portugal has experience with spending rules at the national level, but has not yet implemented the expenditure benchmark of the Fiscal Compact. Since 2012, Portugal's medium-term budget framework (MTBF) has set spending ceilings for 10 high level programs for the budget year plus one, and a binding overall spending limit for budget years plus two and three. Portugal has also integrated the "expenditure benchmark" of the SGP in its national legal framework, which requires real growth in primary expenditure to remain below the medium-term growth rate of potential GDP (for countries which have not yet reached their Medium Term Objectives). However, this has yet to be implemented.[5]

[3] See IMF Fiscal Monitor, Chapter 2, April 2014.

[4] The increase in GG revenue as a share of GDP does not only reflects changes in tax policy and revenue administration performance (numerator), but also GDP changes (denominator)

[5] As the expenditure benchmark does not apply to countries subject to the Excessive Deficit Procedure (EDP).

14. Real primary expenditure targets should preferably be set to achieve the annual structural adjustment called for under the SGP. This would provide a tool for implementing an expenditure-based structural adjustment.[6] Estimates show that keeping real primary expenditures unchanged in real terms from 2016–20 would be consistent with the annual structural adjustment objective of 0.5 percent of GDP (Table 3). It would reduce primary spending by 2.7 percent of GDP over 2016–2020, compared to a projected stabilization in the passive scenario. This is actually slightly lower than the adjustment called for in the authorities' April 2015 Stability Program (SP), which targets a reduction in primary spending of 3.3 percent of GDP from 2015–19.[7] Public debt to GDP ratio would be reduced by more than 14 percent of GDP over the same period, about 9 percentage points below the level in the passive scenario.

Table 3. Primary Expenditure Growth Under Passive and Adjustment Scenarios

	2015	2016	2017	2018	2019	2020
			Passive scenario			
Structural adjustment	-0.6	-0.2	-0.1	-0.1	-0.1	0.0
Primary expenditure real growth	-0.7	1.5	1.2	1.3	1.3	1.2
Primary expenditure (% GDP)	43.0	43.0	42.9	43.0	43.0	43.0
Public debt (% GDP)	126.3	124.3	122.7	122.2	121.7	120.9
			Adjustment scenario			
Structural adjustment	-0.6	0.5	0.5	0.5	0.5	0.5
Primary expenditure real growth	-0.7	-0.2	-0.2	0.0	0.1	0.2
Primary expenditure (% GDP)	43.0	42.3	41.7	41.1	40.7	40.3
Public debt (% GDP)	126.3	123.6	120.7	118.3	115.5	112.0

Sources: INE and IMF staff calculations.

15. Institutional changes would be required to ensure that a spending rule could be operational and sufficiently binding. While the current medium-term fiscal strategy sets a nominal target for general government expenditure, it does not provide a breakdown by levels of government. Expenditure ceilings currently set in the MTBF only cover central government, and exclude expenditure financed by own-source revenues.[8] In order to ensure their effectiveness,

[6] Evidence suggest that expenditure target defined in relationship with GDP are less binding, as GDP targets are often set too high for ensuring fiscal constraints. See IMF WP 15/29, 2015.

[7] The SP targets a decrease in public debt to 107.6 percent of GDP by 2019. In addition to the larger reduction in primary spending, this also reflects a larger projected decline in interest spending and stronger medium growth than under staff's baseline scenario. The SP assumes real GDP growth of 2.4 percent in 2019, compared to staff's projection of 1.2 percent.

[8] See IMF Country Report 14/306, "*Fiscal Transparency Evaluation*", 2014.

real primary expenditure objectives should cover all general government expenditure, and be sufficiently binding to anchor fiscal policy at all levels of government. This would require setting indicative aggregate spending targets for local governments[9] and social security funds either in the medium-term fiscal strategy or a specific fiscal law, with the recently created intergovernmental coordination council being responsible for monitoring local government outturns. Mechanisms to monitor and adjust spending should be designed, such as incentives for local governments (linking the level of central government transfers to achieving the expenditure target),[10] or alert mechanisms for health spending, with the obligation to adopt in-year corrective actions in case of spending slippages. An extension of the MTBF would also be needed to better capture central government spending, in particular spending financed by their own revenue sources.

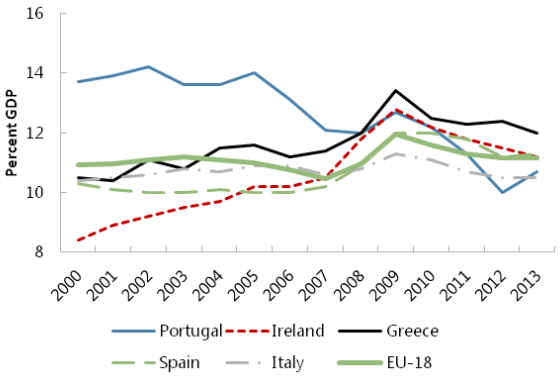
16. Specific policy measures to contain spending should be identified to enforce the expenditure targets, with a focus on public sector wages and pensions[11]. Public sector wages and pensions account for nearly 25 percent of GDP and more than half of non-interest government spending**.** Wage bill expenditure has been significantly reduced in Portugal under the program, and is now below the euro area average, as well as most southern European countries. Reduction in public sector employment was sizable across levels of government and SOEs from 2011–2014 (Table 4). However, the sustainability of these savings is uncertain, as many of the public sector wage cuts introduced under the program are set to be reversed by 2016, in line with the CC rulings (see below). Public spending on pensions has continued to increase, although at a slower pace since 2010, and remains significantly above the euro area average.

[9] Local governments have been developing MTBFs, but there is no consolidation for the local government sector as the whole.

[10] The 2013 Local Finance Law created an early warning mechanism for local governments that break the debt ceiling rule. This mechanism could also be used to monitor expenditure growth.

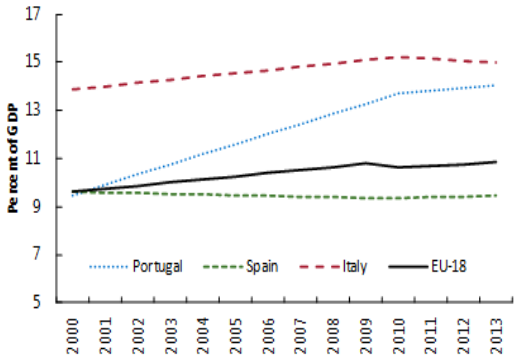
[11] This also aligns with the fiscal plans outlined in the Stability Program, which target expenditure savings of 2.5 percent of GDP from 2015–19 from rationalization of the public sector wage bill and social security reform.

Compensation of Public Employees
(percent of GDP)



Sources: Eurostat and IMF staff estimates.

Public Pension Expenditure
(percent of GDP)



Sources: OECD and IMF staff estimates.

Table 4. Public Sector Employment (2011–14)
(number of employees)

	2011	2012	2013	2014 (p.)	Change (2011- 2014)
General government	**726,985**	**699,140**	**674,094**	**655,620**	**-9.8%**
Central government	551,362	529,831	509,498	496,992	-9.9%
Local governments	162,880	156,997	152,850	147,906	-9.2%
Social Security Funds	12,743	12,312	11,746	10,722	-15.9%
					Change (2012-2014)
Public Entities out of general government 1/		**73,056**	**58,096**	**59,694**	**-18.3%**
Central government		56,150	41,632	43,449	-22.6%
Local governments		16,906	16,464	16,245	-3.9%
Total Public sector		**772,196**	**732,190**	**715,314**	**-7.4%**

1/ Some SOEs were reclassified in the general government in line with ESA2010, and are not excluded consistently over the 2011-September 2014 period.

Source: Authorities (DGAEP).

Public Sector Employment and Compensation

17. The CC decisions create significant legal obstacles to reining in the public sector wage bill. In particular, the CC requires: (i) the fiscal consolidation burden to be shared between civil servants and the rest of the population; and (ii) wage bill consolidation to take place through structural reforms of public employment, rather than nominal cuts in wages. As a consequence, the public sector wage cuts introduced under the program will be partially reversed in 2015, and are expected to be fully cancelled by 2016, at a cost of 0.3 percent of GDP. These legal restrictions necessitate a more strategic approach to restraining the wage bill over the medium term. The main challenge for Portugal will be to build a more competent public administration, while reducing both public employment and the wage premium relative to the private sector.

18. There is considerable scope for rationalization of the public sector to reduce duplication and streamline public interventions. The public sector in Portugal is highly fragmented, with 6,095 separate institutional units.[12] This is particularly the case for central government, which comprises 331 units, including 298 autonomous funds and services (SFAs) that carry out policy and operational functions. In the absence of strong control to ensure compliance with budgetary and financial regulations, this fragmentation was one of the root causes of fiscal slippages prior to the financial crisis. There has been some progress on consolidating financial reporting of these various entities under the program, including reclassification of 141 SOEs within the general government,[13] the privatization or dissolution of about half of local SOEs, and a reduction by nearly one third in the number of parishes responsible for administration of the municipal level. However, Portugal still counts a very large number of SOEs outside the general government, and a reflection is needed on the role and functions of the various levels of government in Portugal going forward.[14] In this regard, the authorities should prepare a comprehensive strategy to modernize the public sector, building on an in-depth assessment of the appropriate level of employment needed to deliver public services.

19. A further reduction in public employment, particularly in overstaffed sectors, is needed over the medium term. Increasing the rate of natural attrition would provide a gradual approach to rationalizing public employment, and would generate savings in both the short and medium term. While across-the-board attrition would be easier to implement, it may have an adverse impact on service provision in certain sectors. As a result, the authorities should target overstaffed sectors, including the education sector, where staffing needs will fall in line with the declining school-age population (see paragraph 42). This should be complemented by enhancing the requalification pool and scaling up the scheme for termination by mutual agreement, which has resulted in fewer departures than expected thus far. In addition, the increase in required

[12] See IMF Country Report 14/306, 2014.

[13] See IMF Country Report 14/306, 2014.

[14] M. Cangiano, Bank of Portugal Seminar, "*Considerations on Public Sector Reforms in Portugal*", 2013.

working hours (to 40 hours week) should be forcefully enforced across the public sector, in particular in local governments.

20. A key objective should be to reduce the disparity between public and private sector wages. [15] At present, lesser qualified workers receive relatively high pay in the public sector compared to both peers in the private sector and more highly skilled civil servants. In addition, the wage grid is relatively flat and depends mostly on years of experience, rather than performance. This makes it difficult to attract highly qualified staff, as private sector opportunities (with lower entry salaries but steeper increases for performance) are considerably more attractive.[16] In order to become more attractive for highly-skilled workers and benefit from ongoing improvements in the quality of tertiary education,[17] the civil service should identify specific skills that are needed in the public sector, and revised the relatively flat wage structure that proves costly and impairs talent attraction in these areas.[18]

21. Further measures are also needed to containing the wage drift embedded in the current system.[19] When progression is automatic, average wage levels rise as the public sector workforce becomes more experienced, even in the absence of wage and employment increases.[20] In past years, Portugal has been characterized by a powerful automatic progression system, which has translated into an early attainment of a high level wage in most occupational careers, and particularly for high-skilled workers.[21] The authorities have already replaced the automatic progression mechanism with a system in which promotions and salary increases are now linked to the results of the staff appraisals, and subject to budget constraints. To prevent any relaxation of these changes, the authorities could further slow down automatic progression by lengthening the maximum duration for a civil servant in each scale level. This could be anchored on the successive extensions of the retirement age decided over the recent period (see below), and would make career progression more gradual to avoid an early attainment of high level wages.

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[15] M. Manuel Campos, M. and Centeno, Bank of Portugal Working Paper, "*Public-Private Wage Gaps in the Period prior to the Adoption of the Euro: an Application based on Longitudinal Data*", 2012.

[16] IMF Country Report 13/6, 2013.

[17] In 2012, 28 percent of the 25-34 year-olds had achieved tertiary education, compared to 11 percent of the 55-64 years-olds.

[18] IMF Country Report 13/6, "*Rethinking the State – Selected Expenditure Reform Options*", 2013.

[19] There are usually two components in the wage drift: a positive one which increases wage spending (impact of discretionary promotion, automatic progression, and promotion related to civil servants passing competitive exams), and a negative one which reduces wage spending (savings due to lower level of compensation for new employees compared to higher level of compensation for employees retiring).

[20] IMF Technical Note, "*Evaluating Government Employment and Compensation*", 2010.

[21] M. Centeno and M. Coutinho Pereira, Bank of Portugal Economic Bulletin, "*Wage Determination in General government in Portugal*", 2005.

Pension System

22. Portugal has implemented a number of reforms to the pension system in recent years. These measures include: (i) the introduction of a "sustainability factor" in 2007 linking initial benefits with improvements in life expectancy at retirement; (ii) the increase in the legal retirement age to 66 years, with further automatic increases linked to the evolution of life expectancy; (iii) the suspension of pension indexation (excluding the minimum pensions); and (iv) the creation of a solidarity surcharge levied on higher pensions. For the public sector, a "convergence law" entered into force in March 2014, aligning the rules for the public sector pension scheme (CGA) with the changes for new entrants to the general social security system.

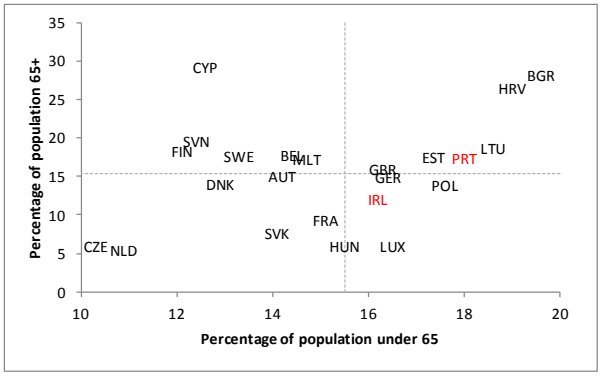
23. However, the impact of these changes on pension expenditure has been limited by legal roadblocks and an excessive backloading of savings. The CC rulings have ruled out a number of changes to the pension system implemented under the program, imposing a requirement that reforms must be structural, with due consideration to equity and intergenerational solidarity, and without affecting acquired rights.[22] In addition, the design of the reform would generate savings only over the longer term due to extensive grandfathering rules that protect current retirees; public pension spending is expected to stabilize only after 2020 and at a relatively high level (13.5 percent of GDP).[23]

24. In addition, Portugal's public pension system remains inequitable, and will face major adverse demographic changes in the long run. After accounting for social transfers and pension outlays, the risk of poverty for the population over 65 years of age in Portugal is broadly in line with the rest of the EU. However, the risk of poverty faced by the share of the population under the age of 65 in Portugal is much higher, which threatens to increase non-contributory pension spending in the long term. In addition, demographic trends are unfavorable, with the dependency ratio in Portugal expected to more than double by 2050 to become the highest in the EU.

[22] The following measures were cancelled: (i) the suspension of the holiday and the Christmas allowances for public pensioners; (ii) the new calculation formula for surviving dependants' pensions; (iii) the reduction in pension benefits granted within the pension scheme for the public sector; and (iv) the progressive sustainability contribution on pensions. As a result of the cancellation of the progressive sustainability contribution, increases in employee's social security contributions and in the standard VAT rate were also cancelled. Source: European commission, Occasional Papers 202, 2014, "*The Economic Adjustment Programme for Portugal 2011–2014*."

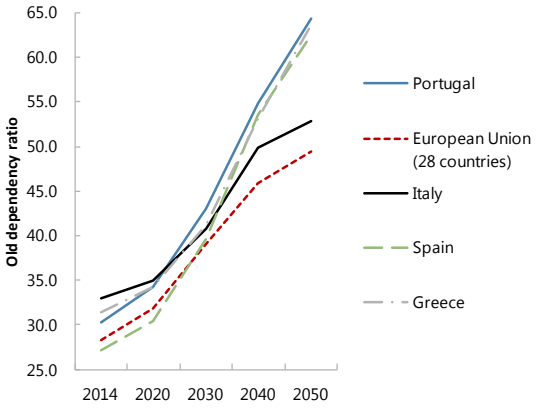
[23] IMF Country Report 13/6, "*Rethinking the State – Selected Expenditure Reform Options*," 2013.

At Risk of Poverty Rate after Social Transfers and Pensions in EU countries, 2012



Source: Eurostat.
Note: Dashed lines represent EU medians.

Projected Old Dependency Ratio in EU Countries



Source: Eurostat and IMF staff estimates.

25. Further pension reforms should aim to limit indexation and shorten the transition period. First, indexation mechanisms (based on GDP growth and CPI) that were suspended during the adjustment program should be revisited (except for minimum pensions). While low growth and inflation are expected to contain pension dynamics in the near term, a more sustainable formula is need to prevent a pro-cyclical increase in pension spending going forward. Second, the authorities should reduce grandfathering for those who are not yet retired, and tighten some of the pension eligibility rules, particularly for those who would receive pensions from the CGA (the pension scheme for civil servants hired until December 2005). Reinstating the suspension of early retirements in the private sector (which was introduced in 2012 and lifted in 2015) could also be considered. Finally, employees' contribution to CGA could increase over time to improve the financial sustainability of the scheme; for example, an increase by one point of employees' CGA contribution would provide about 0.1 percent of GDP of additional revenues annually.

26. A more systemic reform could further strengthen automatic adjustment mechanisms of pensions. In addition to the adjustment of benefits to account for improvements in life expectancy introduced under the program, an economic adjustment factor could be implemented. This could be applied to pension bonuses that were reinstated by the CC, conditioning the payment of these bonuses on achievement of a certain level of GDP growth, as in Hungary. Pensions could also be adjusted to ensure the financial sustainability of the system as in Sweden, by estimating the actuarial balance for the overall pension system and adjusting benefits in line with any deterioration of this balance.

D. Supporting Growth Through Targeted Fiscal Measures

Growth-Friendly Tax Policy

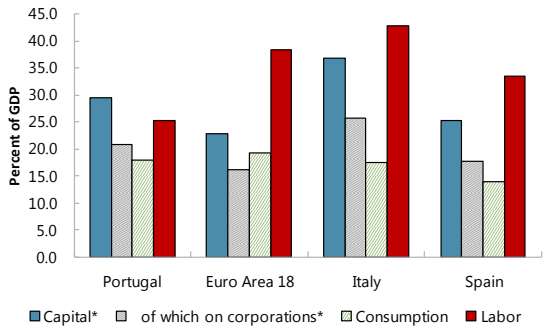
27. Growth-friendly tax policy recommendations typically consist of corporate tax reform and increased incentives for labor force participation. Corporate income taxes are generally considered to be the most harmful type of tax for economic growth, followed by personal income taxes and then consumption taxes.[24] Corporate taxes are deemed to discourage capital accumulation and productivity improvement, and often introduce a bias toward the use of debt finance.[25] Therefore, a shift from direct income tax to indirect consumption tax is usually considered to be supportive of growth, as consumption taxes create less of a distortion on saving and investment decisions. In addition, increasing tax incentives for private research and development spending is often recommended as way to support innovation and boost productivity growth. This section will review recent developments with regard to tax policy in Portugal, and consider possible reforms to support long-term growth.

28. The implicit tax rate on labor is favorable in Portugal, while capital taxation is comparatively high. In 2012, labor taxation in Portugal was significantly lower than both the euro area average and other southern European countries, while the implicit taxation of capital was significantly higher. Recent developments have been positive, moreover, with a decline in the implicit taxation on capital and an increase in the share of indirect taxation, in particular VAT. However, the implicit taxation of labor increased during the program period, primarily through higher personal income tax (PIT).

[24] OECD, Tax policy Studies, "*Tax Policy Reform and Economic Growth*", 2010.

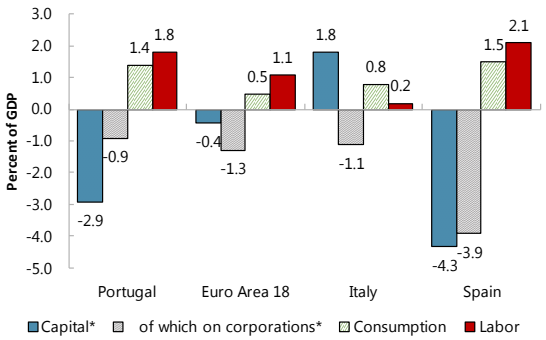
[25] IMF, G20 note, "*Growth-Friendly Fiscal Policy*", 2014.

Implicit Tax Rates by Functional Classification



* Excluding Greece, Luxembourg, and Malta.
Sources: European Commission, IMF staff estimates.

Change in Implicit Tax Rate by Functional Classification (2009–2012)

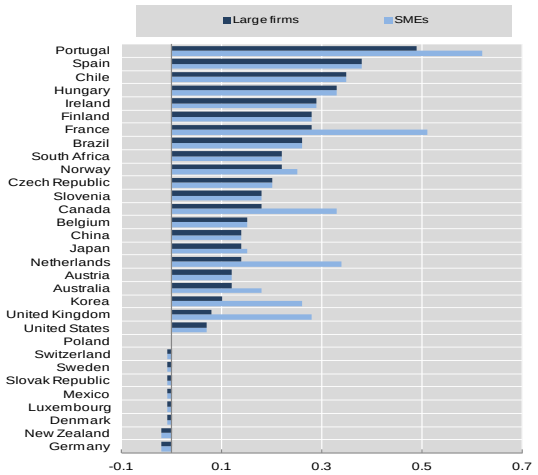


* Excluding Greece, Luxembourg, and Malta.
Sources: European Commission, IMF staff estimates.

29. Recent CIT reform should help create a business environment that is conducive to higher investment. In 2013, Portugal adopted a comprehensive reform package to address deficiencies in the corporate income tax (CIT) regime. The comparatively high CIT rate was reduced from 25 percent in 2013 to 21 percent in 2015, while the reform of tax provisions applicable to holding corporations should help to attract and retain large multinational companies in Portugal. In addition, several previously ineffective investment tax incentives were revised in 2014, to offer higher CIT credits, particularly for investment in poor regions, information and communication technologies, and SMEs.

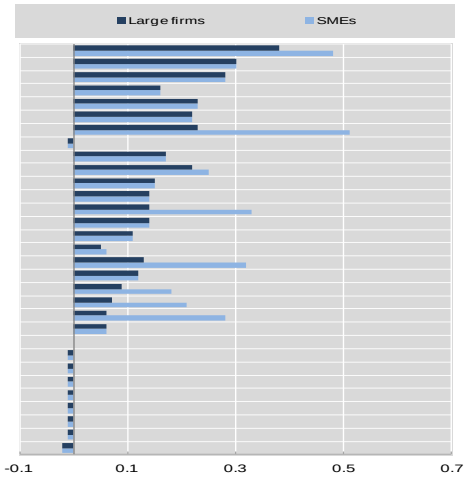
30. Tax incentives for research and development in Portugal comparable favorably with peer countries, with little need to expand the current framework. The Portuguese tax system appears supportive in this regard, both for large firms and SMEs, as well as for profit-making and loss-making companies. The 2013 CIT reform also introduced intellectual property incentives for income derived from patents, and extended the carry-forward period for R&D spending.

Tax Subsidy of R&D Expenditures, 2013
a. Profit Making Scenario



Sources: OECD Science, Technology and Industry Outlook 2014.

Tax Subsidy of R&D Expenditures, 2013
b. Loss Making Scenario



Sources: OECD Science, Technology and Industry Outlook 2014.

31. Going forward, reforms should focus on eliminating capital tax-induced distortions to growth, and reducing informality and tax avoidance. The authorities have committed to further reductions in the standard CIT rate. However, priority should be given to elimination of the state CIT surcharge, as its progressive rates create distortions in investment decisions. To partially finance these tax cuts, the authorities could remove tax incentives for investment in the medium-term, as removing the preferential tax treatment created by the surcharge should help to improve the quality of investment.[26] An increase in the standard VAT rate could also partially offset the CIT reform fiscal costs, and would further shift the tax burden from income to consumption (an additional 0.5 percentage point would increase revenue by about 0.2 percent of GDP). Revenue administration reforms could also support growth by further lowering compliance costs, and reducing tax avoidance; the authorities have launched a major campaign to improve tax compliance in 2015.

32. The introduction of a deduction for corporate equity would reinforce recent changes to reduce corporate debt bias and help bring down corporate indebtedness. Tax systems typically favor corporate debt over equity, as interest payments are deductible for CIT purposes while dividend payments to shareholders are not.[27] The large debt burden in Portugal continues to have a significant adverse impact on both corporate investment and bank balance

[26] OECD, Tax policy Studies, 2010.

[27] See IMF Staff Discussion Note 11/11, *Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions*, 2011.

sheets. Portugal has progressively limited the deductibility of interest for companies in order to reduce the debt bias and prevent multinational debt shifting practices, line with common practice in the EU.[28] This could be complemented by introducing an allowance for corporate equity (ACE) providing a deduction for the normal return on equity, equivalent to the rate of government bonds (a proxy for risk-free rate of return on capital). Estimates for selected advanced countries suggest that an ACE would have a significant impact on both corporate deleveraging, and output gains.[29] Tentative calculations indicate that an ACE for advanced countries would involve an average budgetary cost of 0.5 percent of GDP. Revenue cost can be significantly mitigated through adequate design, by applying the ACE only to new investment, as recently implemented in Italy.

33. Other tax policy reforms can complement labor market reform. Disincentives to labor participation in the current system are particularly high for low-income families that may lose social benefits if a second earner enters the labor force. Possible reforms include the introduction of an earned-income tax credit that would separate employers' labor cost from workers' take-home pay.

More Productive Public Expenditure to Support Growth

34. The need to scale up investment spending is limited following a significant increase in public investment in Portugal in the two decades before the crisis. Public infrastructure investment is typically considered to have a positive impact on output growth, in the short term through demand effects and the crowding in of private investment, and in the long term by raising productive capacity.[30] In addition, debt-financed projects could have large output effects without increasing the debt-to-GDP ratio, if clearly identified infrastructure needs are met through efficient investment. However, these arguments appear less applicable in the case of Portugal. First, the high level of public debt limits the scope to increase borrowing for further investment without a potentially large adverse impact on financing costs. Second, public investment in Portugal has been significantly higher than in the euro area for a long period of time before the crisis, resulting in a large and high quality public capital stock. Moreover, the level of the public capital stock is likely underestimated due to the large role of public-private partnerships (PPPs) and SOEs reported outside the general government (Figure 12) in public investment.[31]

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[28] The cap has been set to €1 million in net interest payments, and has been limited to a percentage of the EBITDA (from 70 percent in 2013 to 30 percent in 2017). In addition, the CIT rate cuts adopted in 2014 will contribute to limit the bias toward debt as less tax is saved at lower rates.

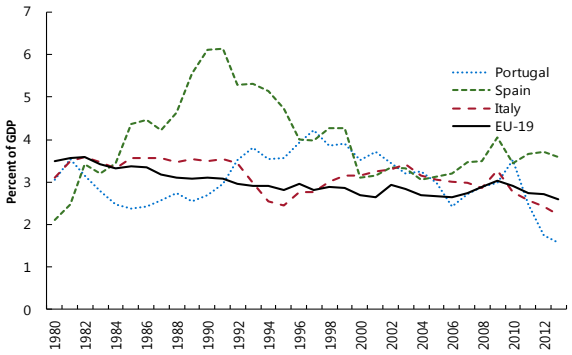
[29] R.De Mooij, M. Keen, and M.Orihara, "*Taxation, Bank Leverage, and Financial Crisis*". See IMF Working Paper 13/48, 2015.

[30] See IMF, World Economic Outlook, Chapter 3, October 2014. Demand effects are usually expected to be stronger where accompanied by economic slack and monetary accommodation, as in Portugal.

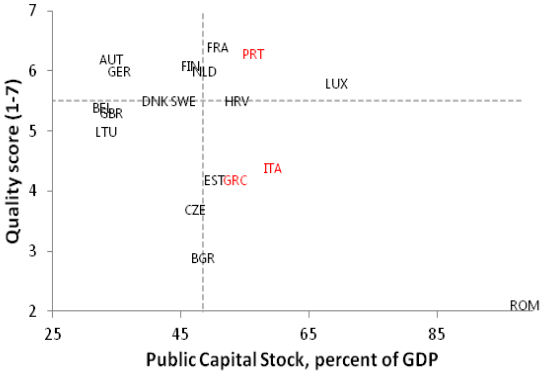
[31] Central government SOEs investment in fixed assets was about 0.4 percent in 2012 and 2013, net of government investment grants for private and public investment (0.3 percent of GDP).

Figure 1. Public Investment

Trends in Public Investment

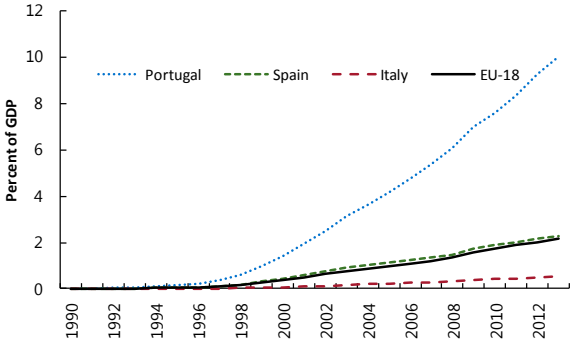


Public Capital Stock and Quality in European Countries, 2012

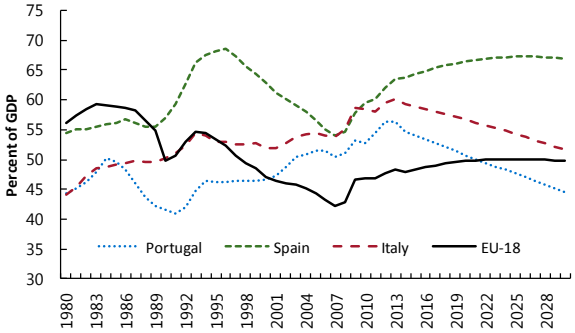


Note: Dashed lines represent EU medians.

Public Capital Stock Adjusted to PPPs 1/



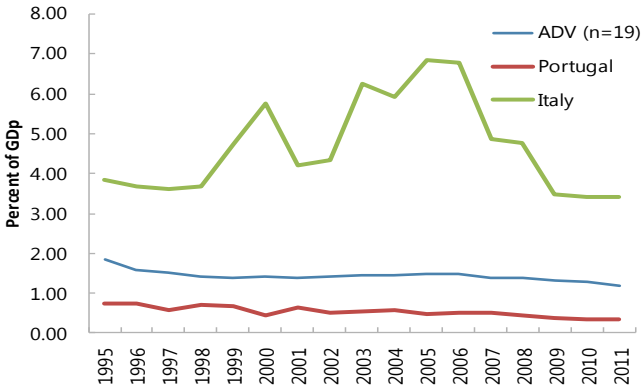
Capital Stock Projections



Sources: Sources: Center for International Comparisons (2013); OECD; WEO; and IMF staff estimates.

1/ Data include PPPs managed by the central government, and not local governments.

35. Priority should be given to maintaining the quality of capital stock. If Portugal and other euro area countries were to maintain their current level of public investment in the long term, estimates show that Portugal's capital stock would converge to the euro area level by 2022 (even with the drop in public investment in Portugal in 2013–14). However, in the absence of increased spending on maintenance, Portugal's public capital stock would significantly deplete afterward and return to its 1993 level by 2030. The near-term priority, therefore, should be to ensure that maintenance spending is sufficient to prevent rapid deterioration in the quality of infrastructure, particularly in the transport sector where private and public maintenance spending have been low in comparison to other advanced economies.

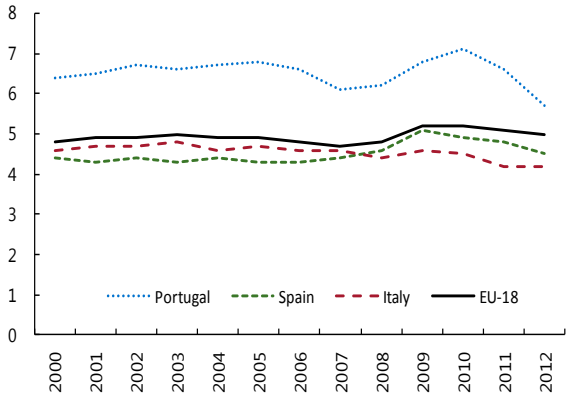


Sources: OECD International Transport Forum, and IMF staff estimates.

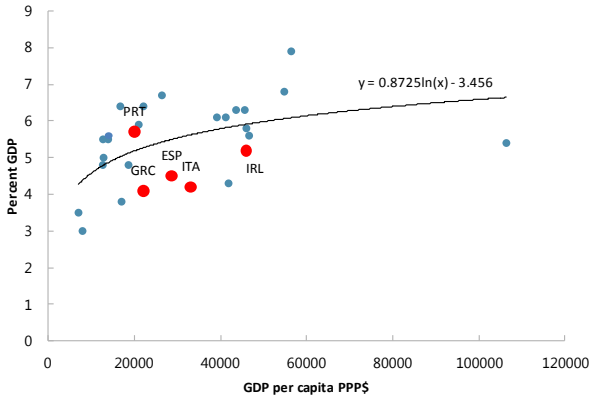
36. There is considerable scope to improve both the efficiency of education outlays and education outcomes in Portugal. Education spending rose significantly before the adjustment program (+0.7 percent of GDP over 2000–2010), particularly on second and tertiary education. Despite a subsequent decrease, it remains above the EU average, and significantly higher than other southern European countries with higher GDP per capita. Average class size in Portugal was significantly below the 2012 EU average in primary education, with significantly lower student-teacher ratios at the secondary level. However, this has not been accompanied by a commensurate improvement in outcomes. Despite higher average growth in attainment rates in Portugal than the EU average over 2000–2012, education attainment remains lower, both for tertiary and non-tertiary educations. Portugal PISA scores significantly improved between 2003 and 2012, but remain below the EU average in mathematics and science.

Figure 2. Education Spending

Trends in Education Spending
(Percent of GDP)

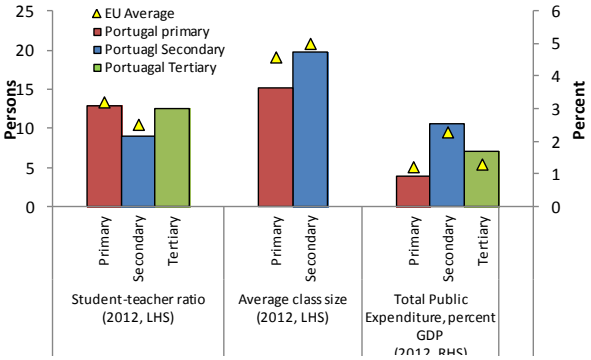


Education Spending Relative to GDP Per Capita
(in US dollars)

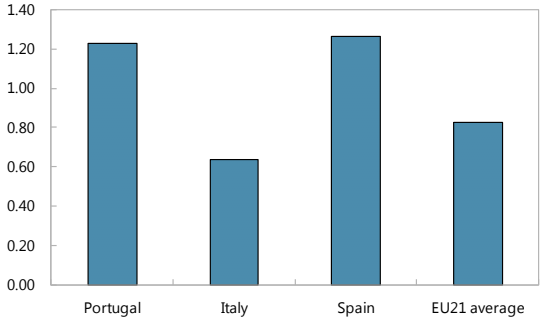


Note: Dashed lines represent EU medians.

Education Efficiency Indicators



Ratio of Teacher's Salaries to Earnings, 2011–2012



Note: Relative to full-time, full year adult workers with tertiary education.

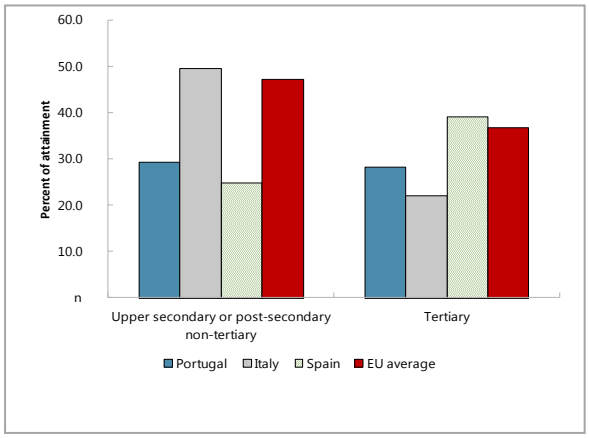
Sources: Eurostat, UNESCO, and OECD PISA.

37. Going forward, there is a need to better align the level of staffing with the shrinking school-age population. Teachers benefit from a significant wage premium compared to other workers with tertiary education, and significantly above the EU average. In addition, staff costs as a share of current spending (92.1 percent, for public institutions only) were the highest

in the EU in 2011 (average of 77.2 percent).[32] The overall number of students in the education system in Portugal fell by 2.4 percent between 1998 and 2012, meanwhile, and is projected to continue to decline. The number of students at the primary level is expected to shrink by 13 percent during 2010–20 and a further 9 percent during 2020–2030, with a commensurate decline in the number of secondary students as they move through the system.[33] Further adjustment to the school network and the number of teacher will be needed as a result, particularly in rural areas where the pace of population decline is much more accelerated.

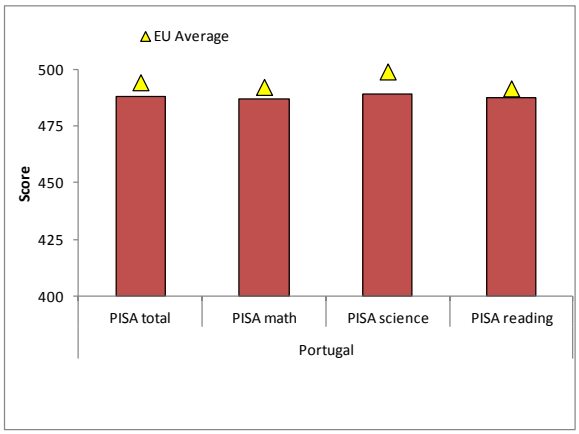
Education Attainment

(Percent of population 25–34 age)



Source: OECD PISA.

Education Performance in 2012



Source: OECD PISA.

38. Ambitious structural reforms have been launched to improve the quality of education services. Portugal has significantly stepped up its education reform agenda in recent years, including both the rationalization of the school network and a reduction in staffing. Future priorities include a new vocational training system to better match private sector needs,[34] a program to reduce school early dropout and low rate of education attainment, and a transfer of decision making to the local level.[35] Policy reforms could also include reducing grade repetition, better supporting disadvantaged students and schools, increasing family choices, strengthening teachers training and evaluation, and further decentralizing decision making.

[32] OECD, PISA indicators, 2014.

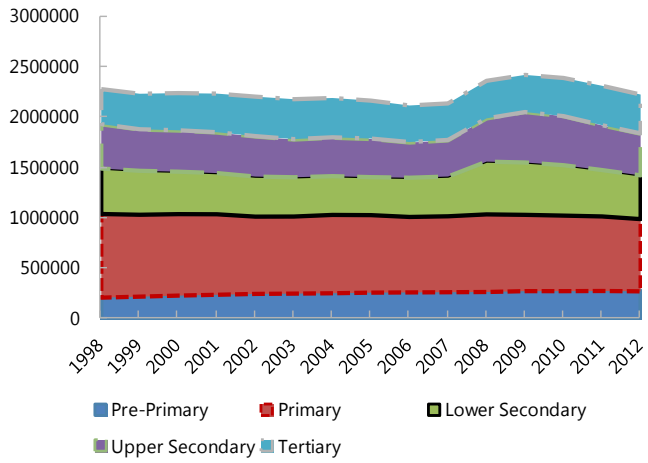
[33] IMF Country Report 13/6, 2013.

[34] European commission, Occasional Papers 202, "*The Economic Adjustment Program for Portugal 2011–2014*, 2014.

[35] OECD, "*Education Policy Outlook 2015, Portugal Country Snapshot*", 2015.

39. Finally, pension reforms could contribute to higher labor force participation. Portugal has put in place bonuses to postponing retirement. The following reforms can also contribute to higher labor participation, particularly for low-skilled workers: (i) increasing the reward for additional years of contributions for low income workers by widening the range of minimum pensions by years of contribution; and (ii) the minimum pension could be set to increase in strict proportion to the number of years of contributions, hence eliminating the current steps increases (at 20 and 30 years of contributions) which create incentives for informality.

Evolution of Student population in Portugal, 1998–2012
(Number of students by level of education)



Source: OECD PISA.

E. Improving Management and Implementation of Fiscal Reforms

40. The Fund-supported program provided institutional arrangements to discuss and monitor fiscal reforms, and offered leverage to ensure effective implementation. A reform unit (ESAME) was created within the Prime Minister's office to centralize and manage policy discussions on structural reforms. Following the end of the Fund-supported program, this unit was dissolved, and its functions integrated in the Ministry of Finance. Various ad-hoc committees were also put in place to carry public policy evaluations, such as the expenditure review in 2012, and more recently on pension reforms. Finally, the program provided the authorities with a framework for monitoring and assessing the implementation of structural reforms, including in the fiscal sector.

41. Institutionalizing fiscal reforms management will be essential to maintain this momentum over the medium term. This would include establishing mechanisms whereby changes are anticipated and options for reforms evaluated on a daily basis[36], helping to ensure appropriation by civil servants, and reinforcing a reform culture within the public administration. Reliance on ad-hoc and temporary commissions and working group to prepare policy reforms should be reduced, in order to ensure continuity in the reform agenda, and horizontal coordination between services on a routine basis. A reform unit within the Ministry of Finance,

[36] M. Cangiano, 2013.

under the authority of the Minister, could coordinate the public sector reform agenda and provide regular reporting to the Prime Minister's Office. This unit could usefully build on the current GPEARI structure and staff, and should heavily rely on the expertise and staff of core departments within the Ministry of Finance.

42. The Ministry of Finance should continue moving toward a more policy-oriented approach, particularly with regard to budgeting. In many advanced countries, recent reforms have promoted a broader strategic perspective, with a medium-term approach that focuses on improving the efficiency of service delivery, assessing the impact of policies, and managing and mitigating risks.[37] In Portugal, the budget function is currently geared toward detailed line-item budgeting and control, and lacks a more programmatic view of the budget and public sector reforms. Recent changes in fiscal reporting; fiscal forecasting and budgeting are in the right direction[38], however, while the reorganization of the Portuguese Budget Office (DGO) should provide an institutional framework that is more conducive for analyzing drivers of public spending. The Ministry of Finance should aim to build on these changes by embedding its spending review into the annual budget process, and putting in place a performance-based budget framework to better evaluate the efficiency of spending.

[37] R. Allen, and al., forthcoming IMF Working Paper, "*The Evolving functions and Organization of Finance Ministries*".

[38] See IMF Country Report 14/306, 2014.

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SUPPORTING MEDIUM-TERM GROWTH THROUGH CORPORATE DEBT RESTRUCTURING: PROGRESS, IMPEDIMENTS AND REMAINING CHALENGES[1]

Questions, Answers, and Possible Objections

What are the specific questions this chapter tries to answer? What is the magnitude of the corporate debt problem in Portugal? What is the impact of corporate leverage on investment? Why has the pace of deleveraging not picked up? What have the authorities done to address the problem so far? What challenges remain?

Why is answering these questions important for this Article IV consultation? Eliminating the corporate debt overhang is crucial to Portugal's recovery. The banking system continues to face high operating costs, overcapacity, and weakening asset quality. Unless banks take advantage of the current economic and financial conditions, credit misallocation will continue and banking sector assets will remain tied up in less productive sector, further constraining investment and weakening economic growth.

What are the main answers to these questions? In the years preceding the economic crisis, the corporate sector experienced rapid debt accumulation. The stock of NFC debt stands at 118.8 percent of GDP on a consolidated basis as of 2014Q3, one of the largest in the EU. Excessive corporate leverage constrains profitability, resulting in higher NPLs and lower business investment. Yet both banks and NFCs face disincentives to speed up the deleveraging process. The authorities have taken some important steps to facilitate corporate debt restructuring, including enhancing the legal and institutional framework. The current economic and financial environment affords an opportunity to tackle the corporate debt overhang more ambitiously with a standardized bank-led, time-bound framework.

What were the objections to these answers? The authorities agreed that corporate debt remains high and that further deleveraging is needed. They cited recent equity injections from foreign investors and equity-favoring tax incentives are contributing factors to the recent decline in corporate debt. In their view, the need to safeguard financial stability significantly constrains the pace of deleveraging.

[1] Prepared by Antoine Bouveret, Irene Yackovlev, Wolfgang Bergthaler and Maximilien Queyranne. The authors would like to thank Maria Ines Drummond and the staff at the Bank of Portugal, as well as Bernardo Maya Afonso and staff at the Ministry of Economy for sharing key data and providing helpful suggestions.

A. Introduction

1. The global financial crisis prompted a renewed focus on financial stability and how it should be defined. As the importance of macro-financial linkages came into stark relief, narrow definitions of financial stability proved inadequate to capture the underlying complexities of financial stress and its impact on the economy.[2] This paper takes a broad view of financial stability as "a condition in which the financial system – intermediaries, markets and market infrastructures – can withstand shocks without major disruption in financial intermediation and in the effective allocation of savings to productive investment" (ECB, 2014). It argues that reducing corporate debt is a necessary condition for restoring financial intermediation and resuming investment, yet banks and non-financial corporations (NFCs) in Portugal face incentives that prolong the deleveraging process. The authorities have taken steps to enhance the legal and institutional framework for corporate debt restructuring. However, in the absence of decisive policy action to reduce NPLs and the level of corporate debt, the economic recovery will be further delayed.

B. Portugal's Leveraging Up Process

2. In the years preceding the economic crisis, the corporate sector experienced rapid debt accumulation. Following the adoption of the euro, large capital inflows and low funding costs unlocked the flow of credit to private non-financial corporations (NFCs). By April 2008, credit to NFCs was growing at 14½ percent, and long-term borrowing (over 5 years) was growing even faster at 21 percent.

3. The accumulation of debt continued well after the start of the global crisis. By June 2013, the stock of debt of NFCs—defined as loans, debt securities and trade credits, on a consolidated basis—had peaked at more than €214 billion (126.9 percent of GDP; see Box 1 for statistical issues). The small and medium enterprise (SME) segment accounted for the largest share, with about half of outstanding debt. Following a gradual 8 percentage point decline beginning in mid-2013, the stock of NFC debt stands at 118.8 percent of GDP (€206 billion) as of 2014Q3 (Figure 1). However, the level of NFC debt is still high by EU standards (Figure 2).

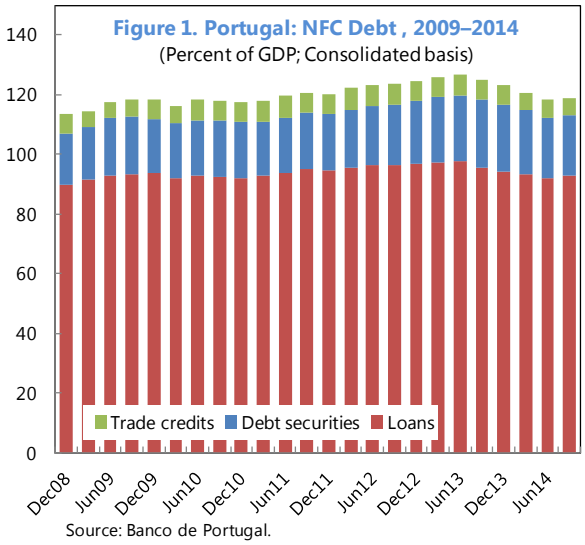


Figure 1. Portugal: NFC Debt , 2009–2014
(Percent of GDP; Consolidated basis)
Source: Banco de Portugal.

[2] The ECB's current definition is 306 words long.

4. Portugal's firms remain highly leveraged. Portugal's NFC debt was equivalent to 142 percent of equity as of end-September 2014, on a consolidated basis, and the leverage ratio was 189 percent.[3] High corporate leverage also continued to weigh on firms' capacity to repay their debt, as approximated as of end-September 2014 by the low interest coverage ratio (ICR), just 3.2 times.

5. The stock of corporate non-performing loans (NPLs) in Portugal is at its historical peak and still rising, further weighing down bank balance sheets (Figure 3). Non-performing loans comprised 19 percent of loans to corporations in 2014Q4, up from 3½ percent in 2008Q4. High and still rising NPLs reflect the weak profitability and excessive indebtedness of a large segment of Portuguese firms. They are also reflective of lower lending standards by banks in the run-up to the crisis.

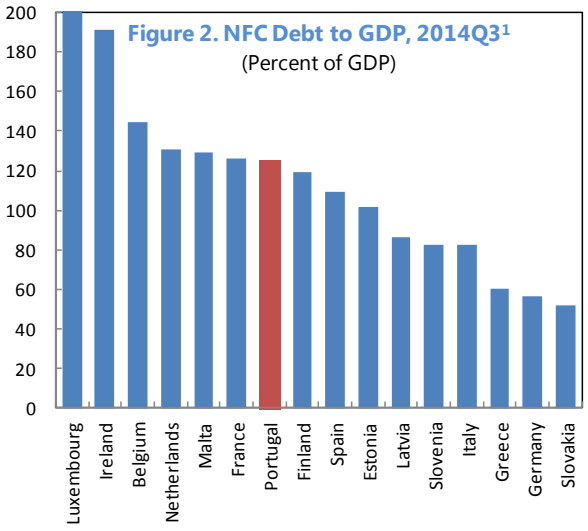


Figure 2. NFC Debt to GDP, 2014Q3[1]
(Percent of GDP)

Source: Eurostat.
[1]Consolidated basis. Luxembourg, 400 percent.

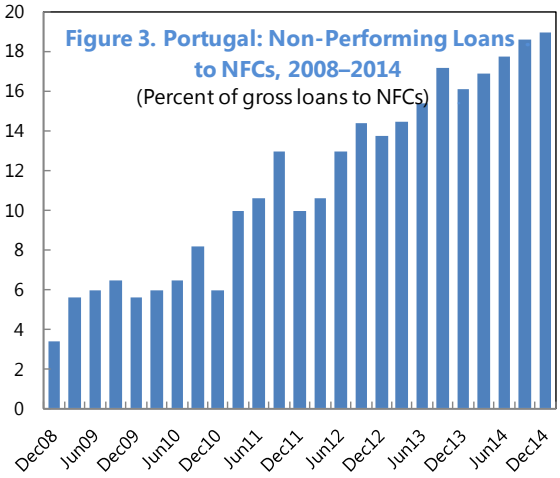


Figure 3. Portugal: Non-Performing Loans to NFCs, 2008–2014
(Percent of gross loans to NFCs)

Source: Banco de Portugal.

C. The Impact of Excessive Corporate Debt on The Real Economy

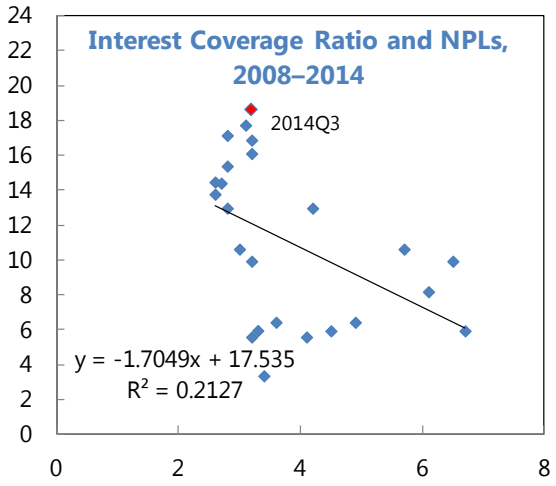
6. Excessive corporate leverage constrains profitability, resulting in higher NPLs and lower business investment (Figure 4). A declining interest rate coverage ratio and the high number of firms with overdue loans (31 percent as of January 2015), are indicative of the impact of the debt overhang on the corporate side. On the bank side, the continued rise of non-performing loans impacts profitability and, in turn, new lending (see Bergthaler et al. (2015)).

7. As the economic crisis unfolded, the interest coverage ratio declined (from 3.9 in 2010 to 3.2 in 2014Q3) reflecting the impact of the corporate debt overhang on NFCs.

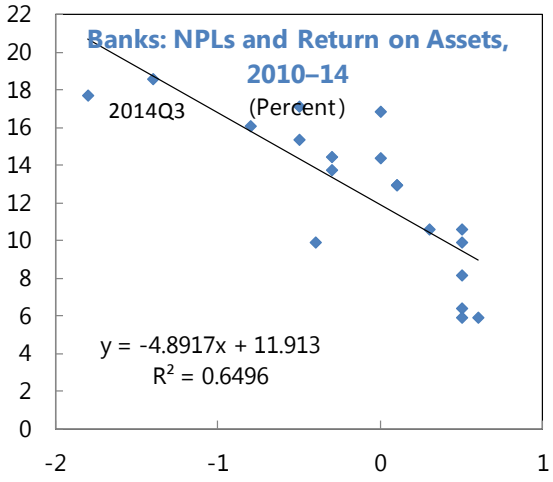
[3] Leverage is defined as the ratio of debt to shareholder equity.

Servicing high debt levels became an insurmountable challenge to many firms also confronting an unfavorable economic environment, and as a result NPLs rose sharply. During 2014, the ICR continued to fall even as NPLs continue to climb.

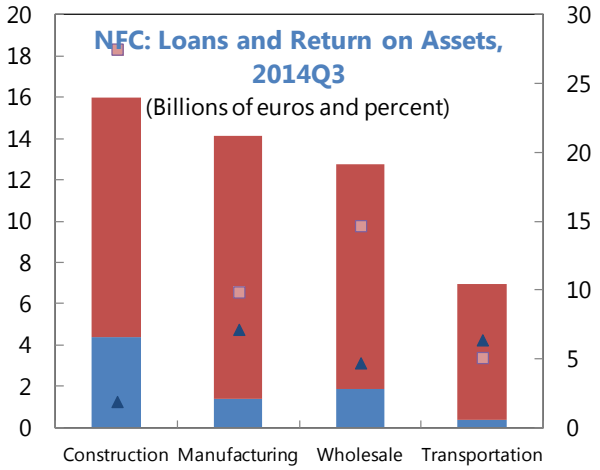
Figure 4. Portugal: Key Indicators of Corporate Indebtedness



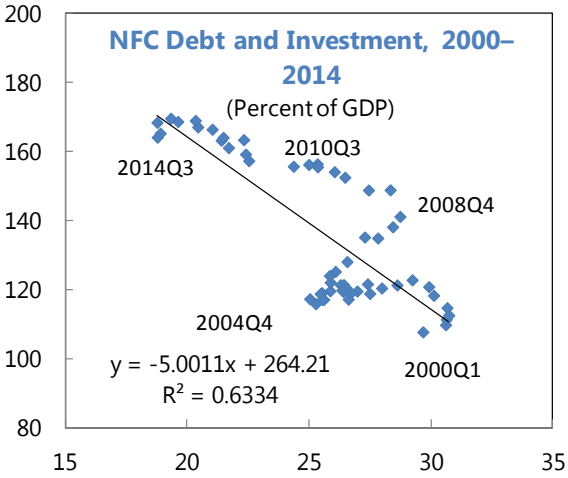
Source: Banco de Portugal. Note: ICR is measured by EBITDA/Interest expenses, NPLs are in percent of total loans.



Source: Banco de Portugal.



Source: Banco de Portugal. Note: RoA are EBITDA/Total assets.



Source: European Central Bank.

8. The growing stock of NPLs exacted a heavy toll on bank profitability. The deteriorating quality of banks' portfolios necessitated additional provisions and credit impairments, which in turn eroded banks' capital. Banks also increased their reliance on financial operations (such as trading of sovereign bonds) as a source of income. As done by banks with

these characteristics elsewhere in Europe,[4] Portuguese banks restricted the loan supply more strongly during the crisis period and credit growth turned negative.

9. Regarding the misallocation of resources, despite its low profitability, the construction sector remains the largest sector measured by bank loans, at around €16 billion (17 percent of bank loans), while 28 percent of the loans to this sector are non-performing.

10. The debt overhang also discourages investment, because (i) debt impacts the profitability of firms and hence their ability to obtain funding (supply side) and (ii) firms with a high level of debt might refrain from investing. Indeed, Jaeger (2003) provides evidence of substantial and persistent leverage effects on corporate investment in the U.S. and Germany, especially when leverage is measured by the debt-to-internal funds ratio. Goretti and Souto (2013), using firm-level data for eight euro area countries (including Portugal), find that higher debt overhang, proxied by debt-to-equity leverage or interest coverage ratio, is found to significantly reduce the firms' investment to capital ratio. In a broader context, Cecchetti et Al. (2010) show that corporate debt becomes a drag on growth for levels beyond 90 percent of GDP. More recently, the European Investment Bank documents a negative relationship between NFC credit growth and the share of NPLs (EIB (2015)). Bergthaler, et Al. (2015) find that high corporate debt and NPLs represent a significant drag on investment, as credit-constrained firms cut back on spending to repay debt.

D. Disincentives for Banks and Non-Financial Corporations to Restructure Corporate debt

11. Both banks and NFCs face disincentives to speed up the deleveraging process. On the bank side, the reliance on collateralized lending and the difficulty of marking-to-market collateral create an incentive for banks to postpone provisions and debt write-offs until the economic recovery takes hold, despite eroding profitability. The corporate sector is dominated by SMEs where, due to weak corporate governance and personal guarantees, firm owners typically distribute (rather than retain) earnings, shifting the risk from firms to banks.

From the perspective of NFCs, there are important deterrents to restructuring their debt:

- The legal and institutional framework, though recently strengthened, is still a burden (Box 2). The introduction of streamlined and strengthened in and out-of-court workouts was an important step towards putting in place an enhanced framework. However, many firms access the framework when it is too late and, when they do, they face institutional hurdles that slow down the process. In essence, other mechanisms may need to be developed to provide a systemic solution for processing large numbers of distressed firms quickly and equitably.

[4] Gambacorta and Marques-Ibanez (2011).

- Weak corporate governance. The Portuguese corporate sector is dominated by small and medium enterprises, mostly operating in the nontradeables sector. In contrast to their Spanish peers, Portuguese firm owners typically distribute more earnings. This reduces the equity ratio of those businesses, shifting the risk from the firm's owners to the bank. Until firm owners leave more earnings in their firms and/or inject additional equity, the deleveraging contribution from this flow channel will be limited.

- The pledging of personal guarantees as business collateral. For the large segment of SMEs that is family owned and operated, restructuring business debts can have devastating personal consequences. Personal guarantees are used as the primary collateral in 21½ percent of NFC loans, and as secondary collateral in many others. If personal assets (such as home mortgages and personal guarantees) have been used as collateral for business loans, the incentive of business owners to retain earnings in greatly diminished.

12. On the bank side, there are additional hurdles. Portuguese banks continue to operate in a difficult environment, with low profit margins, and little incentive or ability to incur the cost of large-scale write-offs. There are several reasons why this is likely the case[5]:

- Insufficient capital buffers and modest provisioning levels. While banks may have sufficient capital to meet the minimum regulatory requirement, writing off NPLs erodes capital. Capital buffers remain too thin to absorb the substantial losses that would be required to achieve meaningful deleveraging (average CET1 ratio was 11.4 percent as of 2014Q4, which is below the euro area average). At the same time, provisioning levels, although found adequate during the Asset Quality Review, are not high enough to avert a material reduction in capital should banks begin to accelerate the writing-off the bad debts. Further, by holding on to their provisioned loans banks can avoid the negative impact on their provisioning coverage ratios that would result from writing-off or selling the bad debt.

- Low profitability and collateral dependency. In many cases, Portuguese banks have relied on collateralized lending, which in its most common form entails the use of real estate collateral. With the decline of the real estate market in Portugal, it became very difficult to price real estate and when an estimate was completed it typically fell far short of the price the bank had on its books. This created an incentive for banks to postpone foreclosure and liquidation until the economic recovery took hold, but banks continue to wait even as their profitability continues to erode.

[5] For a discussion of similar factors affecting Italian banks, see Jassaud and Kang (2015).

E. The Outlines of a Way Forward – Using the Toolkit at Hand

13. The authorities have taken some important steps to facilitate corporate debt restructuring (Box 2 and 4). The institutional and legal framework was enhanced, including (i) introducing a less favorable tax treatment of debt financing, (ii) lowering the threshold for creditor approval in restructuring plans, (iii) streamlining and strengthening in and out-of-court workouts (PER, SIREVE), (iv) providing a fresh start for entrepreneurs declaring bankruptcy, and (iv) developing an early warning system.

14. The current economic and financial environment affords an opportunity to tackle the corporate debt overhang more ambitiously. Waiting for growth to restore profitability will likely not be enough, given the size and complexity of the problem. A systemic approach, led by a body with sufficient resources and sway over banks, could move the restructuring process forward, but would also likely impose costs on both corporations and banks. A standardized bank-led, time-bound framework that calls on banks to raise more capital, increase provisioning, and accelerate the pace of write-offs to deal with debt restructuring would pave the way for restoring the flow of private credit to viable firms, and supporting economic growth. Although the pace of such a framework would need to be carefully calibrated to preserve financial stability, this approach would ultimately help lower risks to financial stability by improving the overall asset quality of the banking system.

For Portugal, the policy toolkit should be aimed at:

- Activating the stock channel, which would require incentivizing firm owners to accept debt-equity swaps and allow write-offs; whereas activating the flow channel would require firm owners to retain more earnings or inject additional equity.

- Tightening supervisory policies on provisioning and write-offs to speed NPL resolution. This could include: (i) introducing new guidelines on provisioning to increase provisions for restructured loans (as in Spain or Malta), (ii) tightening supervisory requirements to speed up write-offs: impose higher capital charges or time limit on NPL write-offs, (iii) facilitating the liquidation of non-viable firms by imposing stricter impairment triggers and discounted cash flow analysis to distinguish between viable and non viable borrowers, (iv) a swifter recognition and exit of non-viable borrowers (such a in Sweden where borrowers with low ICR and high leverage are quickly ushered into bankruptcy or liquidation);

- Strengthen supervisory guidance on the use of personal guarantees as collateral for business lending.

- Removing tax impediments to loan restructuring by introducing the tax deductibility of write-offs[6], and allowing public creditors with claims against distressed debtors to agree to similar restructuring treatment as other creditors (Box 3).[7]

- Legal reforms to improve in and out of court restructuring. Systemic workouts offering standardized solutions, particularly for small and medium enterprises overseen by a body with sufficient sway over banks to reach efficient and equitable terms for revaluation and write-offs.

Box 1. Corporate Debt: Data and Statistical Issues

The statistical analysis of corporate debt in Portugal is made more challenging by discrepancies across data sources and statistical definitions and coverage.

Information on debt held by corporations is gathered by the National Statistics Office, INE, as part of the national accounts data. These data have in turn recently migrated to ESA 2010, causing some material changes. Changes to the breakdown of the economy by sector are due to an amended delineation between the financial corporations sector and the non-financial corporations sector, a more detailed breakdown of the financial sector and the new requirement for a breakdown between households and non-profit institutions in the financial accounts For example, on an ESA 2010 basis, corporate holding companies are no longer classified as NFCs.

In addition, information on the debt owed by corporations to monetary financial institutions is gathered and disseminated by the Bank of Portugal and also by the ECB, and this data may differ in coverage or definition from data published by INE. For the purposes of this paper, we rely mainly on data published by the Bank of Portugal through December 2014.

In this paper, corporate debt is measured using consolidated data on loans, debt securities and trade credits to the non-financial corporate sector. Unlike non-consolidated data, consolidated data nets out intragroup financing and financing between NFCs belonging to different groups, i.e. the sector is viewed as a single entity. This is more relevant as it reflects trends that could impact economic activity. Regarding unconsolidated data, intragroup and intrasector financing have very different implications in terms of monitoring but unfortunately, due to the lack of available data, it is not possible to distinguish between the two. Indeed, unconsolidated data is subject to statistical measurement issues regarding different coverage of inter-NFC debt and different concepts of statistical units for NFCs (See EC (2013) and ECB (2014b) for further details). Overall, the use of consolidated data appears to be analytically sounder and statistically more robust.

However, sometimes more granular information on corporate debt is only available on an unconsolidated basis (for example for debt by sector or size of the firm).

[6] In particular, creditors reported that, unlike provisions, write offs were not tax-deductible unless the insolvency of the debtor was certified by a judge, which further disincentivize creditors to write-off NPLs.

[7] There is recognition that employee withholding taxes such as PAYE and sales taxes such as VAT should be excluded since the former represent amounts withheld from employees' salaries in satisfaction of their tax obligation, while the latter are presumed to have been recovered from the debtor's clients.

Box 2. The Legal and Institutional Framework

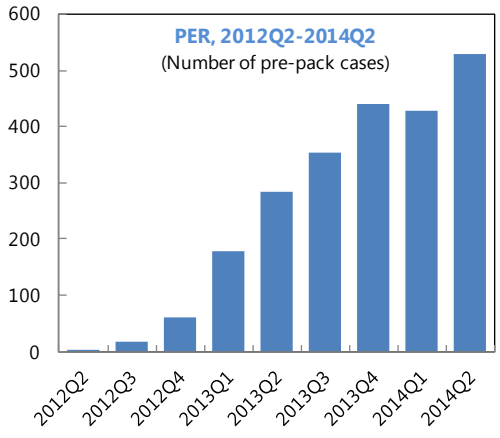
The reform of the legal and institutional framework needs to be sustained. The introduction of streamlined and strengthened in (i.e., a prep-pack[1]) and out-of-court workouts (PER, SIREVE, and out-of-court guidelines) was an important step towards putting in place an enhanced framework for rehabilitation and insolvency. However, a few issues continue to hamper the use to the full potential of the revised framework:

First, firms attempt restructuring too late (for instance, the prohibition for directors for trading insolvent is not enforced).

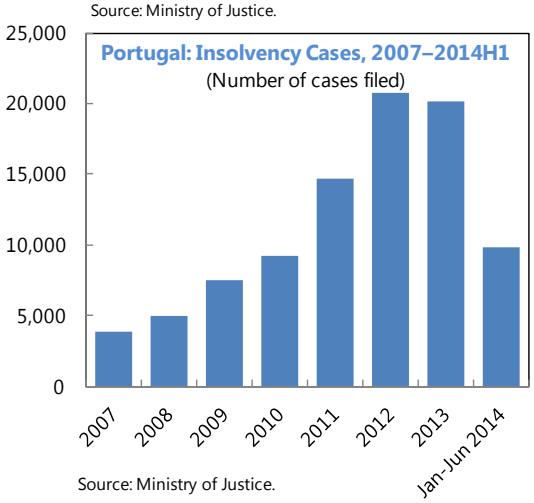
Second, due to the significant increase in insolvency cases, there are important institutional constraints (i.e., lack of enough specialized judges, lack of capacity of IAPMEI, and small number of qualified insolvency administrators).

Third, due to legal constraints (i.e., no principal write-off, ceiling of 150 installments), public creditors continue not to be able to participate meaningfully in rehabilitation.

While the authorities have tackled these issues decisively in the course of the Fund-supported program (e.g., new restructuring tools, new judicial organization which increases specialization and concentration of judges and courts and a new statute for insolvency administrators in terms of qualification, supervision, and remuneration which opened the profession to new entrants), the reforms need to be sustained.



Source: Ministry of Justice.



Source: Ministry of Justice.

Finally, the revised legal and institutional framework cannot provide a systemic solution for processing the large numbers of SMEs quickly and equitably and other mechanism would need to be designed such as systemic workouts offering standardized solutions.

[1] Pre-packs refer to procedures under which the court expeditiously approves a debt restructuring plan negotiated between the debtor and its creditors in a consensual manner before the initiation of an insolvency proceeding. This technique draws on the most significant advantage of a court-approved restructuring plan—the ability to make the plan binding on dissenting creditors or cram-down—while leveraging a speedy out-of-court negotiation process.

Box 3. How Can Tax Policy Contribute to Corporate Deleveraging?

Tax systems typically favor corporate debt over equity, because interest payments are deductible for corporate income tax (CIT) purposes while equity returns are not.[1] CIT generally allows a deduction of interest payments when determining taxable profits. The return on equity—whether dividends paid to shareholders or capital gains on shares—is typically not deductible. For domestic investors who are subject to personal income tax (PIT) on their capital income, taxes on interest mitigate this tax advantage of debt. Taxes on capital gains and dividends magnify debt bias. Mitigating debt bias calls for either reducing the tax deductibility of interest, or introducing similar deductions for equity returns.

Portugal has progressively reduced tax debt bias by limiting the tax deductibility of interest.[2] Until recently, there was no limitation on tax deductibility of interest in Portugal. In 2013, the government restricted the deductibility of interest for companies whose net interest payments exceeded €3 million and limited interest deductibility to 70 percent of EBITDA in 2013. This will be further reduced to 30 percent in 2017, yielding an estimated +€115 million additional revenue in 2017 according to FAD estimation (from +€24 million in 2014). The 2014 CIT reform has further reduced the threshold to €1 million, in line with FAD recommendation. In addition, the CIT rate cut adopted in 2014 (from 25 to 23 percent) will contribute to limit the bias toward debt as less tax is saved at lower rates. These reforms are consistent with tax measures adopted in the EU, particularly in Germany (2008) and France (2013).

In 2014, Portugal increased its capital injection tax relief scheme for individual investors and venture capital companies by capping the deduction to 5 percent of the taxable income (from 3 percent). Addressing across the board debt bias would require introducing a more ambitious deduction for corporate equity, in line with FAD recommendations. This allowance for corporate equity (ACE) involves granting firms a deduction for the normal return on equity, equivalent to the rate of government bonds (a proxy for risk-free rate of return on capital).[3] It thus neutralizes the preferential tax treatment of debt finance, and avoids tax incentives to artificially high leverage, especially for financial institutions. With the ACE, normal equity returns are fully CIT deductible and taxed only at a personal level, while returns above that are still taxed at both the corporate and the individual level. The base to which this rate would apply is the book value of equity, minus equity participations in other firms (to avoid duplication of tax relief).

[1] IMF Staff Discussion Note 11/11, 2011, "Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions".

[2] FAD TA report, 2013, "Issues in corporate tax reform".

[3] For example, for the first three fiscal years (2011–13) of ACE implementation in Italy, the notional interest rate was set at 3 percent.

Box 4. 2014 Action Plan for Corporate Debt Restructuring

Recognizing the complexity of reducing corporate debt levels, the authorities implemented a wide-ranging action plan for corporate debt restructuring during 2014. The action plan centered on four pillars of intervention:

- *Assessment/warning.* As an incentive for companies to restructure earlier, debtors receive a credit rating each year issued by NMGS. An early warning system for distressed corporate debt implemented by the Banco de Portugal, allows banks and their supervisor to identify over-indebted firms. A special assessment program of banks' policies and procedures to deal with distressed loans is also being overseen by the Banco de Portugal.

- *Formal procedures.* The legal and institutional framework has been significantly strengthened through improvement to PER and SIREVE during the implementation of the action plan (Box 2). The authorities are considering extending the framework to begin in the pre-restructuring phase, to reduce the stigma of restructuring.

- *Recapitalization instruments and incentives.* Recapitalization instruments, alternatives to bank debt financing and incentives for companies to maintain a more prudent and balanced capital structure are also integral to the action plan. The authorities introduced fiscal incentives in the context of the 2014 budget (to be phased in through 2017), including measures to favor preferred shares and convertible debt and thin capitalization rules. The authorities are also studying ways to increase access to financing for viable restructured companies, notably SMEs, and potential Pillar 1 and Pillar 2 regulatory measures to promote corporate debt restructuring or sale/transfer of the underlying exposures.

- *Stakeholder involvement.* Reforms in this area aim to reduce the debt bias of firms by introducing changes to the legal framework for preferred equity and dividends, as early as next year. In addition, a more dynamic role for the credit mediator is envisaged.

Next steps. The authorities are completing the implementation of the action plan, and considering additional policy actions taking into account the scale and complexity of the issue, as well as the need to preserve financial stability and debt sustainability.

The Ministry of Economy and the Ministry of Justice continue to work on improvements to the PER and SIREVE systems aimed at removing the associated stigma and increasing capacity. However, the capacity of the framework remains limited and the number of SMEs that are in need of debt restructuring is very high.

Also, pending an assessment of the effect of fiscal incentives in 2015, the authorities are analyzing options for reducing the debt bias of firms through changes to the legal framework for preferred equity and dividends.

The Bank of Portugal has set up four work streams to promote and incentivize banks to restructure distressed debt, to collect more granular data and statistics, and to better focus the Bank of Portugal's role as an independent advisor of the government on matters pertaining to corporate debt restructuring. More recently, the Bank of Portugal published a revised macro-prudential toolkit.

Appendix I. Data Appendix

A. Data Sources

The main data sources for this chapter are Banco de Portugal Statistical Bulletin and the Quarterly Report on the Portuguese Banking system. All the data sources are listed in the table below.

Variable	Source
Non financial corporation debt: loans, debt securities and trade credit, consolidated data	Banco do Portugal, financial accounts for Portugal, Eurostat for other European countries
GDP	INE, National Accounts
Growth rate of corporate loans	Banco do Portugal, Monetary and Financial Statistics
Investment rate of NFC	European Central Bank, National Accounts
Non financial corporate debt: Debt outstanding to GDP, unconsolidated data	European Central Bank, National Accounts
Non-performing loans	Banco do Portugal, Statistical bulletin
Interest rate coverage ratio	Banco do Portugal, Statistical bulletin
Interest rate on NFC loans	Banco do Portugal, Monetary and Financial Statistics
Return on assets of NFC	Banco do Portugal, Statistical bulletin
Return on assets of banks	Banco do Portugal, Portuguese Banking system: Latest developments

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CREATING JOBS FOR LOWER-SKILLED WORKERS[1]

Questions, Answers, and Possible Objections

What are the questions this chapter tries to answer? What were the recent trends in measures of labor slack (Section B)? Why was labor slack so high by the end of the program, especially among the lower skilled (Section C)? What is the medium-term outlook for creating jobs for workers across different skill categories (Section D)? What policies could increase the chances of lower-skilled workers to find jobs (Section E)?

Why is answering these questions important for this Article IV consultation? Creating jobs is Portugal's most pressing macroeconomic challenge. Under present policies, staff's medium-term baseline projection suggests that lower-skilled workers would find it particularly difficult to find jobs. Persistent under-use of labor resources would not only imply lower incomes (and quality of lives) for those without jobs or on involuntary part-time work, but also higher taxes or cuts in public spending for everybody, erosion of valuable human capital, and loss of trust in public policies, with potential adverse knock-on effects to political polarization and EU integration fatigue. Moreover, if the rate of job creation is too slow to absorb workers, outward migration, especially of skilled workers, could remain elevated over the medium term.

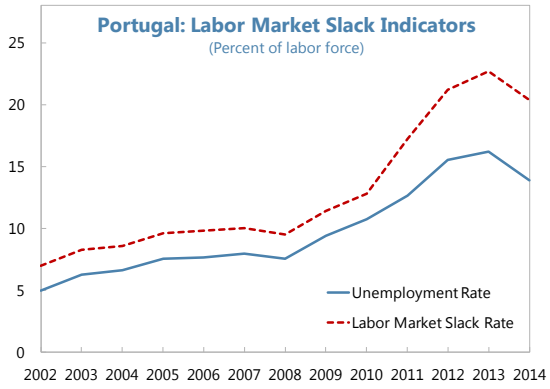
What are the answers to these questions? Measuring labor slack during and after a crisis needs to go beyond conventional measures of unemployment (¶4-5). Broader measures suggest that labor slack increased significantly more than indicated by the unemployment rate, while the brunt of labor shedding fell on the lower skilled (¶7). These adverse labor market trends were mainly a legacy of the pre-2011 build-up of macroeconomic flow and stock imbalances (¶12). Under present growth projections and policies, it is unlikely that job creation will be sufficient to absorb the slack over the medium term (¶17). To support job creation for the lower skilled, structural reforms should be complemented by a prudent minimum wage policy (¶25), measures that increase the limited pool of managerial skills (¶28), and a more inclusive and transparent social dialogue (¶31).

What could be possible objections to these answers? The adjustment program itself was a key driver of higher labor slack (¶12). Higher migration flows to richer and faster-aging EU countries may reduce slack from the labor supply side, independently of policies in Portugal (¶16). The chapter is too pessimistic about medium-term growth given delayed positive effects from past structural reforms and the recent boosts to external competitiveness (lower oil prices and financing cost, and euro depreciation) (¶21). The chapter is too optimistic about the scope for creating jobs because much of the measured labor slack may be difficult to absorb given skill mismatches (¶22).

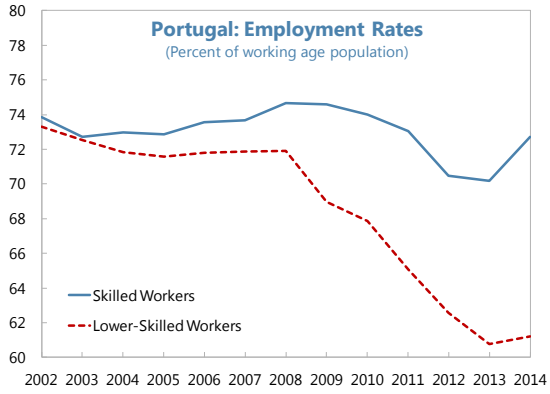
[1] Prepared by Albert Jaeger and Ana Gomes. We thank Pedro Amaral (Banco de Portugal), Ana Isabel Valente and Nuno Antunes (both Ministry of Labor), and participants of a seminar at the Banco de Portugal for helpful comments.

A. Background

1. The financial stabilization of the Portuguese economy has left a legacy of large slack in the labor market, especially among the lower skilled. In 2014, the unemployment rate stood at about 14 percent (left text chart). A broader measure of labor slack indicated that about 20 percent of available labor resources were unemployed, under-employed, or discouraged from looking actively for jobs. This slack estimate still does not take into account migrants that have left the country to work abroad. Lower-skilled workers were especially affected by low labor demand, an adverse labor market trend that, however, started already in 2008 (right text chart). Despite the recovery in output since 2013, the transition back to jobs of the lower skilled has made little progress so far.



Sources: INE; and IMF staff estimates.



Source: INE.

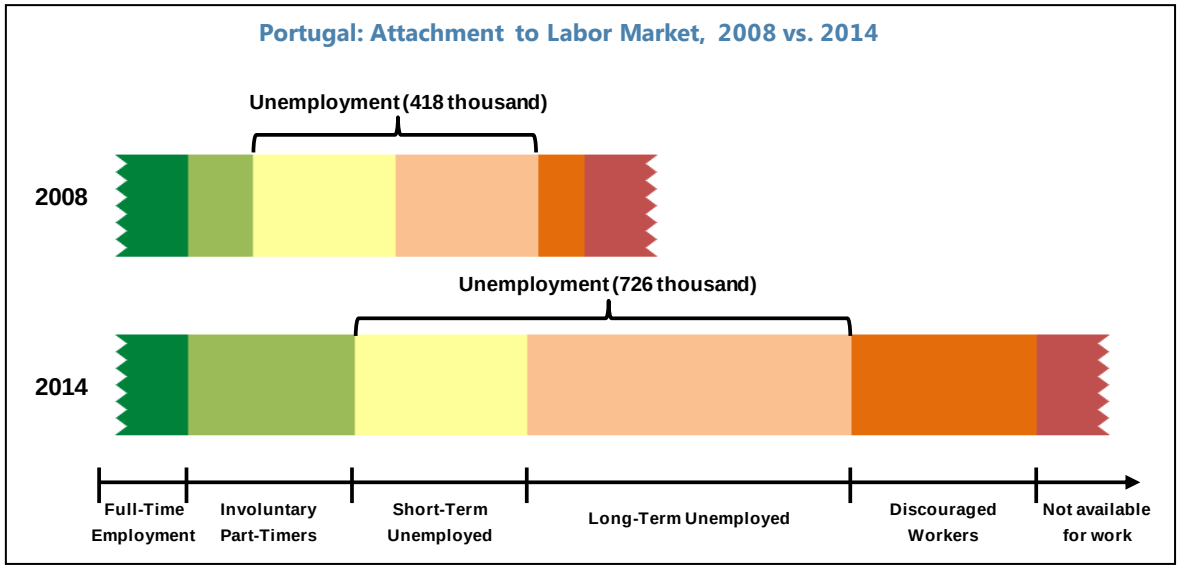
2. Against this backdrop, the Portuguese labor market is likely to face four main issues over the medium term. Two issues on the labor demand side: First, will the overall pace of output growth be sufficient to absorb labor slack by creating jobs? And second, even if the pace of output growth is satisfactory, will lower-skilled workers have the policy support needed to make the transition back to employment? Two issues on the labor supply side: First, will education and training programs promote relevant skills to avoid mismatches that could turn labor slack into persistent unemployment? And second, will lower-skilled workers be sufficiently incentivized to remain attached to the labor market given that creating jobs for them will take time?

3. This chapter focuses on the issue of creating jobs for lower-skilled workers. The chapter documents trends in alternative labor slack measures (Section B), discusses the macroeconomic drivers of high labor slack (Section C), presents two alternative scenarios for absorbing skilled and lower-skilled workers over the medium term (Section D), and outlines three measures that could help create jobs for the lower skilled (Section E).

B. Measuring Labor Market Slack[2]

4. The dividing lines between the employed, unemployed, and inactive are necessarily fuzzy. Some of the employed may work involuntarily short hours, some of the unemployed may have little interest or ability to find a job, and some of the inactive may be quite willing to work if jobs would become available. An extensive empirical literature has studied the transition probabilities among different labor market states, focusing in particular on whether some of those outside the labor force as conventionally measured are as likely to move into jobs as those conventionally labeled as unemployed (see, for example, Clark and Summers (1979), for the U.S.; Garrido and Toharia (2004), for Spain; and Schweitzer (2003), for the U.K). Since the global financial crisis, measuring labor slack has attracted additional attention, especially among central banks trying to gauge underlying inflation pressures.

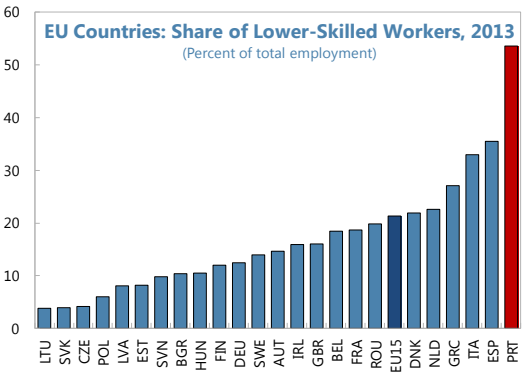
5. In Portugal, the sizes of all labor market groups that are neither fully employed nor fully disinclined to work have risen sharply. The conventional unemployment rate measures labor slack as the number of workers actively looking for work but not able to find a job. However, there are also always workers that are under-employed, i.e. workers on part-time jobs that would like to work more hours. Other workers will say they are available to work but are discouraged to look actively for jobs. While conventional unemployment has almost doubled since 2008, the number of involuntary short-term has almost tripled and the number of discouraged workers has quadrupled since 2008 (text chart). [3]



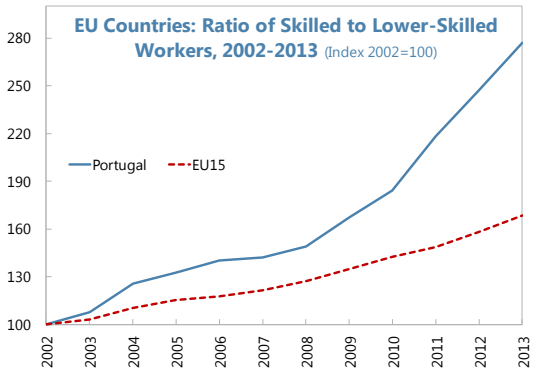
[2] All data sources and definitions are summarized in the data appendix.

[3] These figures also reflect a statistical break in Portugal's labor market data at the beginning of 2011 when the design of the labor force survey was significantly revamped by the Statistical Office (INE).

6. Although the skill ratio is improving fast, the supply of lower-skilled workers remains exceptionally high. Portugal's share of lower-skilled labor in employment is by far the highest in the EU (left text chart). This mainly reflects a stock legacy of heavy under-investment in schooling and training before the April 1974 Revolution. Over the last four decades, a massive educational transition took place, with average years of schooling increasing significantly (Alves et al. (2010)). As a result, the skill composition of Portugal's employment has not only improved significantly but is improving much faster than in the average of EU countries (right text chart).



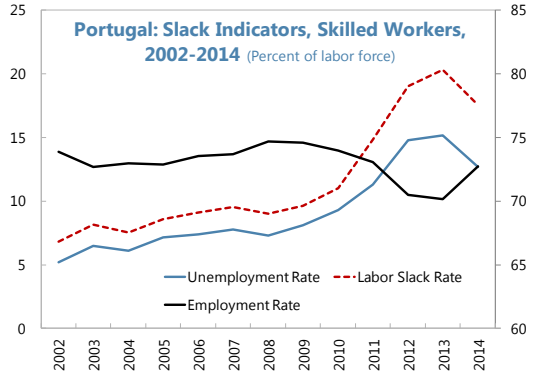
Sources: Eurostat; and INE.



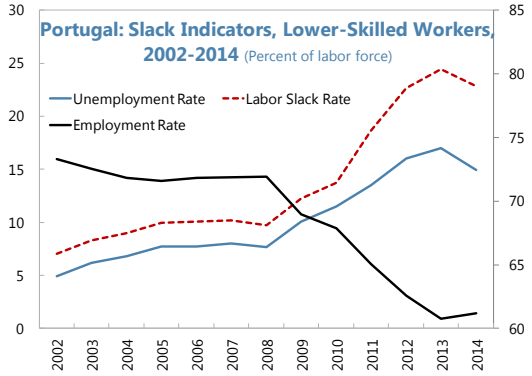
Sources: Eurostat; and INE.

7. A broader measure of labor slack has diverged from unemployment since 2008, especially for lower-skilled workers. A simple approach is to add discouraged workers to the officially unemployed workers and the labor force, and also adjust for involuntary part-time work (by adding 0.5 times involuntary part-time workers to the number of unemployed and discouraged workers) (Table 1). For both skilled and lower-skilled workers, this broader measure of labor slack was always somewhat higher than the conventional unemployment measure during the pre-crisis period up to 2008, but the difference between the two series was quite stable (text charts). Since the onset of the global financial crisis, the two labor slack measures have diverged. And labor slack for the lower skilled has increased significantly more than for skilled workers, as also highlighted by the slump in the employment rate for the lower skilled.

8. During and after a crisis, outward migration of workers can provide a potent adjustment channel, further masking actual labor slack. Two recent studies suggest that intra-EU migration in response to different degrees of labor market slack across member countries has increased (Goodhart and Lee (2013), and Beyer and Smets (2014)). With vastly improved communication and transport technologies, migrant workers are likely to maintain more attachment to the labor market of the country they originate from than earlier generations of migrants. This suggests that labor slack measures that are based only on the resident population are too narrow. Severe data constraints allow, however, only gauging in a rough manner the additional labor slack that may result from migration (Box 1).



Sources: INE; and IMF staff estimates.



Sources: INE; and IMF staff estimates.

Box 1. Labor Slack and Migration

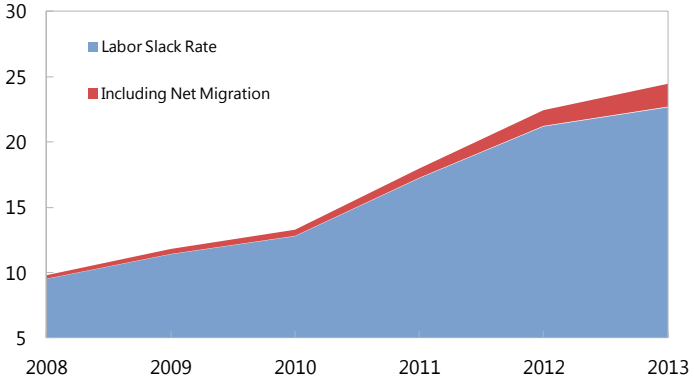
In a post-crisis economy, a broader measure of labor slack should arguably take account of outward migration of workers. Migrant workers abroad, and particularly those intending to migrate out only temporarily, form a pool of workers that is connected to the domestic labor market by a two-way safety valve. If domestic labor market conditions are difficult, outward migration increases, and vice versa.

Data constraints, however, make it difficult to gauge the number of workers abroad that should plausibly be added to labor market slack, given that there is no official estimate of the stock of nationals living abroad. Nevertheless, the Emigration Survey (IMMS), which is carried out as a supplementary survey to the labor force survey in the first quarter of each year since 2008, provides an estimate of annual migration flows that allows at least estimating plausible ranges for an extended slack measure.

According to the international convention, migrants can be classified as temporary (or short term) when they left the country with the intention of residing in another country for a continuous period of more than 3 months and less than one year, or permanent (long term) when they intend to stay abroad over one year. Contrary to permanent migrants, temporary migrants are already included in the resident population, and their labor market status is therefore taken into account in the labor statistics.

As a somewhat extreme benchmark, assume that the total stock of permanent migrants outside the country would be available to return to take jobs or search for work if labor market conditions would improve. Estimating this stock accurately is not possible. As an illustration, assume the stock was zero in 2007. Then, cumulating the available data on permanent net migration (i.e. the difference between the outflow of permanent migrants and the inflow of permanent immigrants who are Portuguese citizens) during 2008–2013, the slack rate in 2013 would have been 1.7 percentage points higher than a slack rate excluding permanent migration flows (Box 1 Figure 1).

Box 1 Figure 1. Portugal: Labor Slack Adjusted for Migration[1/], 2008-2013 (Percent of adjusted labor force)

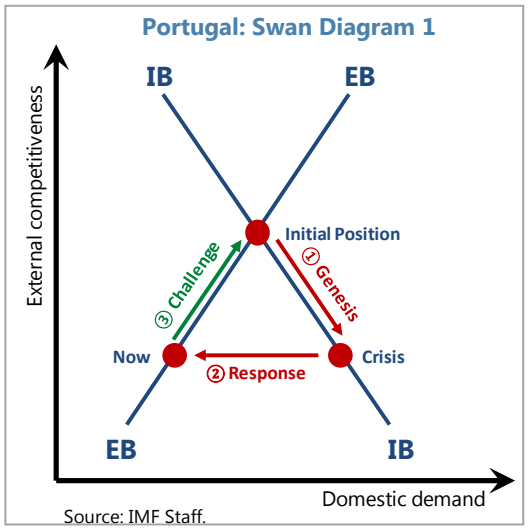


[1/] We assumed that the stock of permanent migrants at the beginning of 2008 was zero and that all migrants would have been part of the labor slack (either unemployment or discouraged) had they stayed in Portugal.

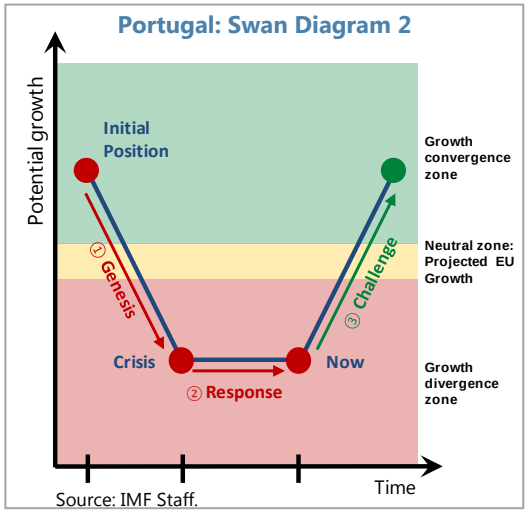
Sources: INE; and IMF staff estimates.

C. Macroeconomic Context: The Drivers of Labor Slack[4]

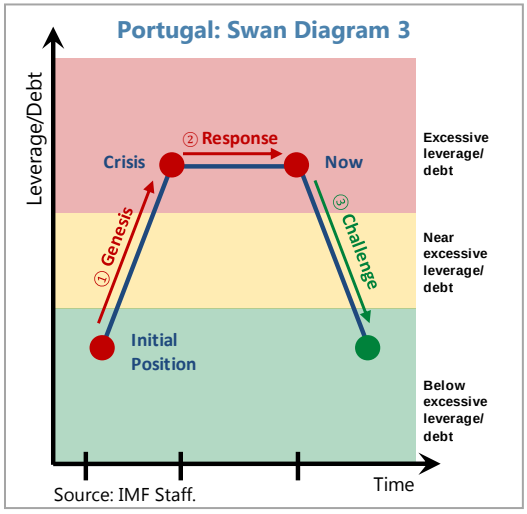
9. From external to internal imbalance. Since the mid-1990s, Portugal ran very large external deficits (the economy was off the external balance (EB) curve). At the same time, internal balance (IB) was largely maintained. Once the crisis erupted in early-2011, the adjustment program restored external balance, while a large internal imbalance (as indicated by slack in labor market) opened up (the economy moved away from the IB curve). Looking ahead, the internal-external balance challenge therefore is to restore internal balance by creating jobs, without re-opening the external imbalance.



10. From convergence growth to potential growth slump. Much of the massive inflow of foreign savings went to consumption, housing, or financing the operations of low-performing firms. At the same time, the globalization of trade during the 1990s and 2000s caught Portugal unprepared. As a result, potential growth slowed already sharply before the crisis, falling well below the pace needed to converge to average EU living standards. Looking ahead, the potential growth challenge is to increase growth back to convergence speed levels.

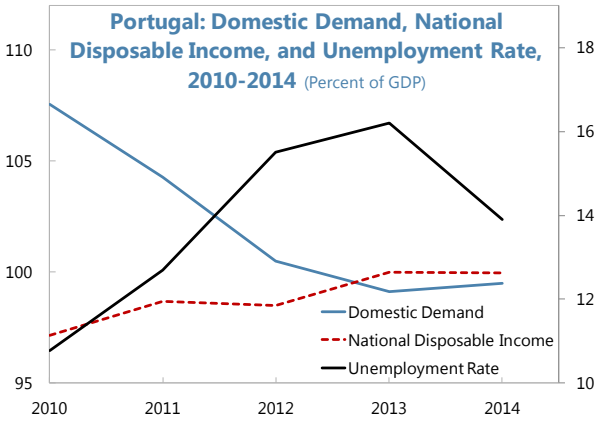


11. From prudent to excessive leverage and public debt levels. With persistent external imbalances and potential growth slumping, leverage of firms and public debt rose to excessive levels. The recognition that this cumulative process was unsustainable triggered the crisis in early 2011. During the program, aggregate firm leverage and public debt stabilized, albeit at excessive levels. Looking ahead, the leverage and public debt challenges are to reduce indebtedness back to less excessive levels through balanced growth.



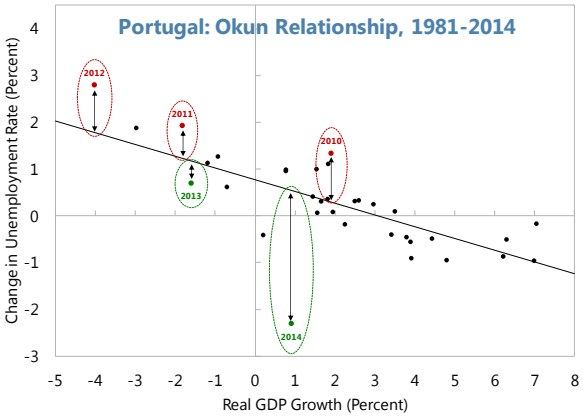
[4] The following reading of macroeconomic events is highly stylized.

12. In this reading of macroeconomic events, rising labor market slack was a legacy of pre-crisis imbalances. Restoring the credibility of the country's policies required closing gradually the external imbalance and—at a minimum—to stabilize excessive leverage and public debt levels. Closing the external imbalance in turn required bringing the unsustainable level of domestic demand in line with the country's national disposable income (text chart). At the same time, the emergence of a large internal imbalance could have been mitigated by raising external competitiveness, and thereby stimulating exports. However, this would have required a significant improvement in external competiveness, either by improving the price-cost competitiveness of existing exporting firms or by fostering the emergence of new exporting firms. But this was difficult to achieve through structural reforms in the short run. Moreover, the idea of a fiscal devaluation—which was part of the original adjustment program design—proved impossible to implement.



Source: INE.

13. But unemployment outcomes during the initial phase of the program also surprised negatively. The unemployment rate during 2010–12 consistently increased by more than predicted by a historical Okun's law relationship (text chart). This led to a divergence between unemployment projections and outcomes that may have created a sense that the program itself was a key driver of labor market slack. However, as research on Okun's law had pointed out before (for example, IMF (2010)), historical Okun relationships often turn unstable in an environment of large, adverse output shocks when many firms fail or decide to shed labor to bring production in line with revised expectations. In fact, once an output recovery got underway in 2013, the deviations from Okun's law were in the opposite direction, especially in 2014.[5]



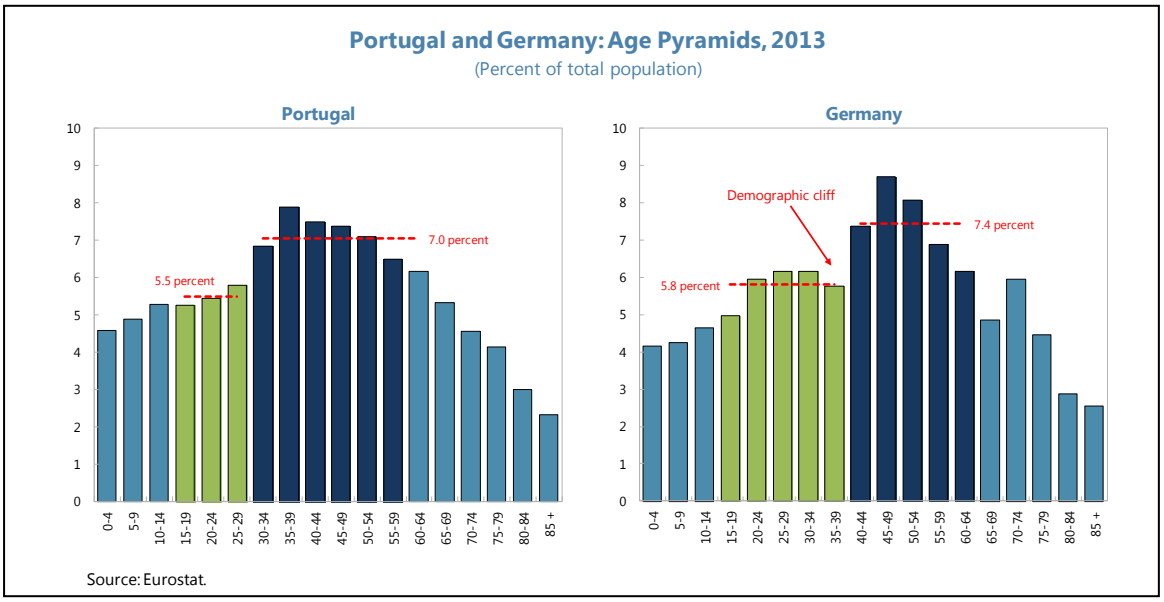
Sources: INE; and IMF staff estimates.

[5] A change in the labor force survey sample before and after 2013–14 may also have played a role. Until 2013–14, labor force surveys were based on an increasingly outdated sample reflecting the 2001 Population Census. As time went by, the 2001 Census put too much weight on non-urban residents, which tend to experience higher unemployment. This sampling design likely resulted in exaggerated unemployment increases during 2010–12. With the survey gradually switching to a more representative sample based on the 2011 Population Census during 2013–14, this likely reduced unemployment, but also brought it closer to reality.

D. Labor Absorption Scenarios: 2015–20

14. A small, tractable model of the labor market is used to explore two labor absorption scenarios. To pin down labor demand for skilled and lower-skilled labor, a two-level production function was calibrated based on 2002–14 data. In the production function, skilled and lower-skilled labor inputs are substitutes, while skilled labor and capital equipment are complements. This general specification allows labor demand to reflect both skill-capital complementarities as well as skill-biased technological progress (Box 2).

15. Labor supply under baseline. The Statistical Office's (INE) central population projection is used to project the working-age population. This projection is based on the largely mechanical assumption that net migration of permanent migrants will converge from the present net outflow rate of about 13,000 to close to zero by 2020. To the extent that labor demand is insufficient to absorb labor under the baseline over the medium term, an additional labor supply assumption is that the additional slack generated by discouraged workers and involuntary part-time workers will revert to pre-crisis, i.e. 2008 levels.



16. Sensitivity of migration projection. The labor supply projections are sensitive to labor demand developments in Portugal as well as to population aging and economic trends elsewhere in the EU. To illustrate, population aging in Germany leads the aging process in Portugal by about 10 years, with the demographic cliff in Portugal separating the 25–29 years age cohort from the 30–34 years age cohort, while in Germany the demographic cliff is separating the 35–39 and 40–44 years age cohorts (text charts). Thus, by contrast to Portugal, in Germany the largest worker cohorts are transiting to or approaching retirement over the next 5–10 years, which could generate a powerful migration pull for countries like Portugal.

17. Labor demand under baseline. Staff's baseline scenario for output growth and unemployment during 2015–20 is used to determine the demand for the two skill categories.

Moreover, the baseline assumes that the skill premium (as defined in Box 2) will continue on its historical trend, i.e. decline by ½ percent per year on average. The number of skilled and lower-skilled jobs created under these assumptions falls far short of what would be needed to bring the overall employment rate back to pre-crisis levels, with the employment rate for lower-skilled workers remaining especially depressed relative to pre-crisis levels (panel chart).

18. Labor demand and supply under absorption scenario. In the alternative absorption scenario, the model is used to determine the paths for output growth and skill premium needed to bring labor slack rates for both skilled and unskilled workers back to 2008 levels. The levels of discouraged and involuntary part-time workers also revert to pre-crisis levels, but in the absorption scenario this takes place through job creation for the discouraged or shifting involuntary part-time workers to full-time work (panel chart).

Box 2. Labor Skills in a Production Function

A two-level aggregate production function provides a simple quantitative framework for thinking about labor absorption. Following Krusell et.al. (2000), the production function features skilled labor (L_S) and unskilled labor (L_U) inputs, and also allows for separate inputs of capital structures (K_S) and capital equipment (K_E). A_t is a neutral technology factor that is treated as a residual.

$$Y(K_{Et}, K_{St}, L_{St}, L_{Ut}) = A_t K_{St}^{\alpha}\left[\mu L_{Ut}{}^{\sigma} + (1-\mu)(\lambda K_{Et}^{\rho} + (1-\lambda)(L_{St}\varphi_{St})^{\rho})^{\frac{\sigma}{\rho}}\right]^{\frac{1-\alpha}{\sigma}}$$

Labor is measured in efficiency units (with φ_S as the efficiency index for skilled labor), and capital inputs are adjusted for utilization. α, μ and λ are share parameters estimated from the data; 1/(1-σ) is the (common) elasticity of substitution between equipment and skilled labor on the one hand and equipment and unskilled labor on the other hand; we estimate $\sigma = 0.88$ based on Portuguese data. 1/(1-ρ) is the elasticity of substitution between equipment and skilled labor. As we do not have direct evidence from Portuguese data on this parameter, we use the same value as Krussel et.al. (2000), i.e. $\rho = -0.67$.

This production function allows for both capital-skill complementarity (by assuming that capital equipment and skilled labor are complements) and skill-biased technological progress (by assuming that the efficiency of skilled labor increases ½ percent each year while that for unskilled labor remains unchanged).

Assuming that all input factors are paid their marginal products, the growth rate in the skill premium (g_{π_t})—where the premium is defined as the ratio of skilled wages to unskilled wages—can be approximated by:

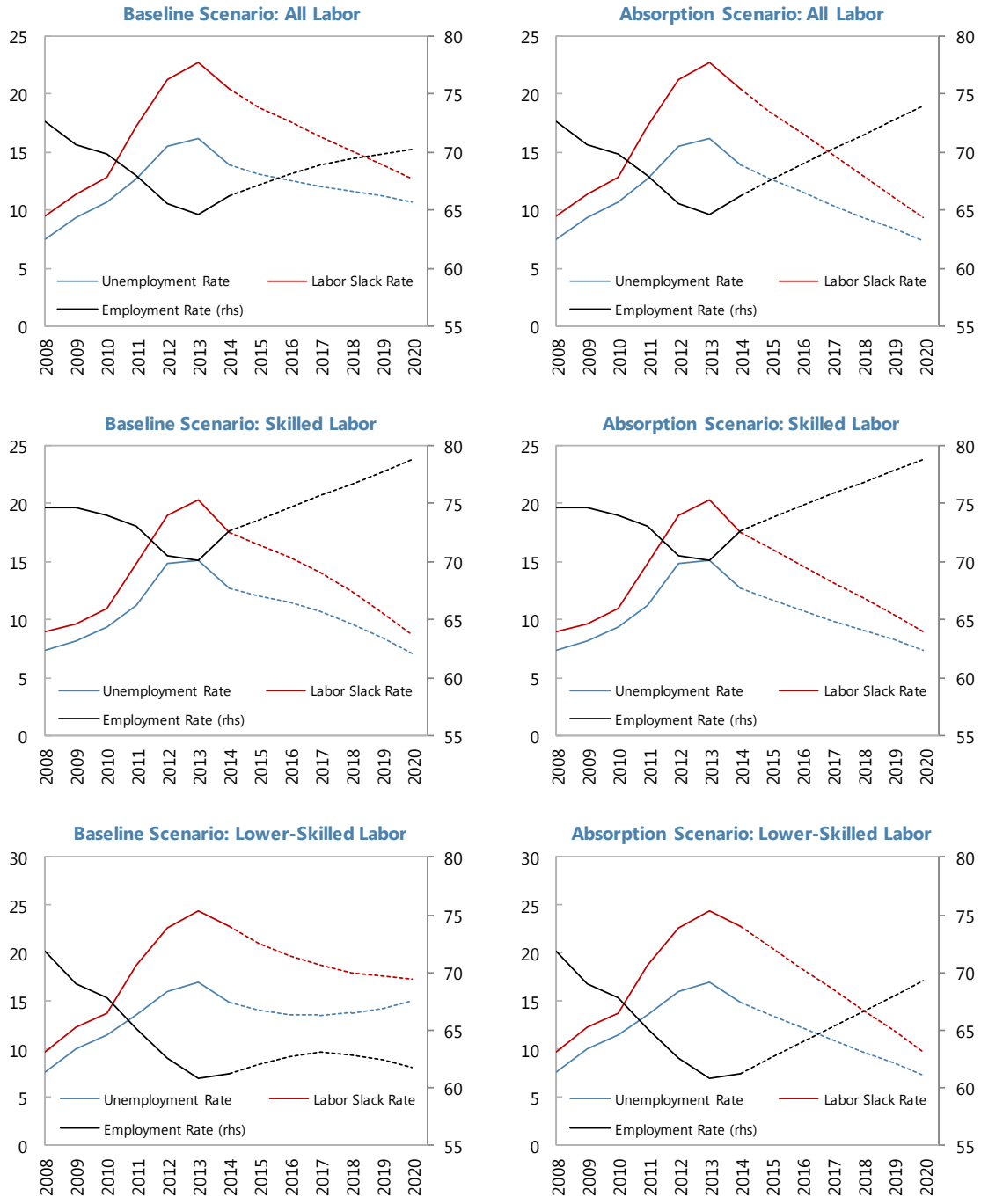
$$g_{\pi_t} \approx (1-\sigma)\left(g_{L_{Ut}} - g_{L_{St}}\right) + (\sigma-\rho)\lambda\left(\frac{K_{Et}}{L_{St}\varphi_{St}}\right)^{\rho}\left(g_{K_{Et}} - g_{L_{St}} - g_{\varphi_{St}}\right) + \sigma g_{\varphi_{St}}$$

The first term provides the effect on the skill premium due to the relative growth rate of skilled and unskilled labor. Given that skilled labor has (and is expected) to grow clearly faster than unskilled labor and ($\sigma < 1$), this effect on the skill premium is unambiguously negative.

The second term captures the effect of capital skill complementarity on the skill premium. If $\sigma > \rho$, skilled labor is more complementary with equipment than is unskilled labor. In this case, faster growth in capital equipment than in skilled labor (adjusted for efficiency) would increase the skill premium.

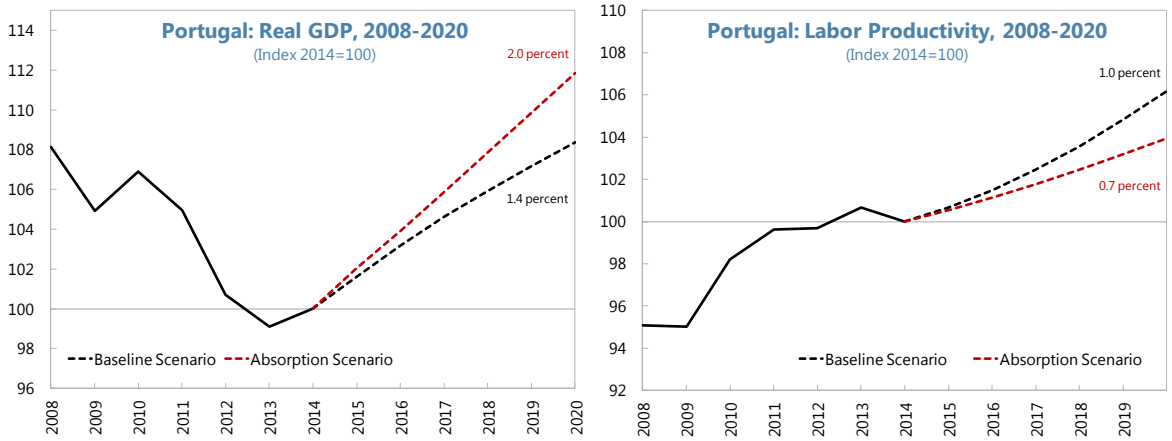
The third term captures the effect of skill-biased technological progress on the skill premium, and, given that σ is positive, this term will increase the skill premium.

Figure 1. Portugal: Labor Absorption Scenarios, 2015–20

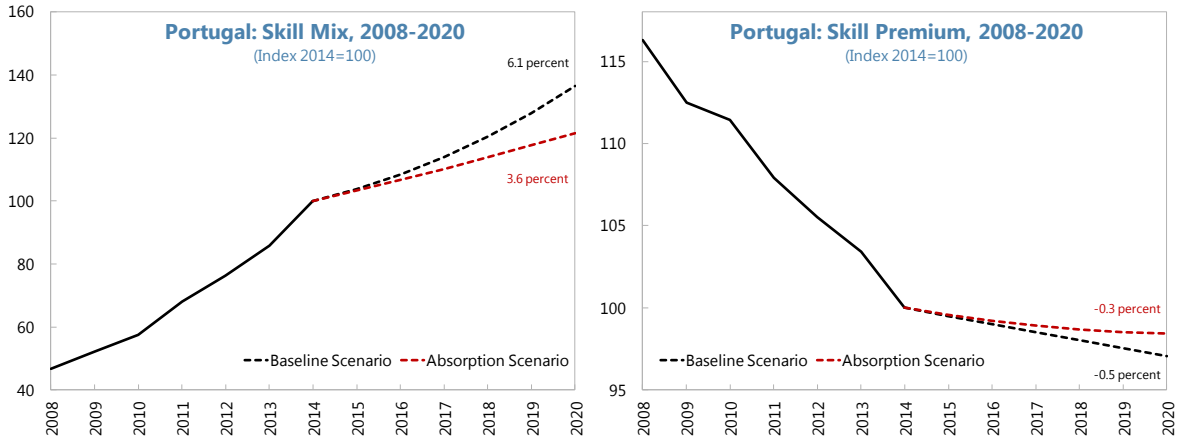


Sources: INE; and IMF staff estimates.

19. Output and productivity growth under absorption scenario. The implied paths for output under the baseline and absorption paths suggest that absorbing large amounts of labor slack may not require unrealistically fast output growth rates since absorbing lower-skilled labor is not less growth-intensive than absorbing skilled labor (left text chart). At the same time, a phase of absorbing large numbers of lower-skilled workers would likely be accompanied by a phase of low overall labor productivity growth (right text chart).

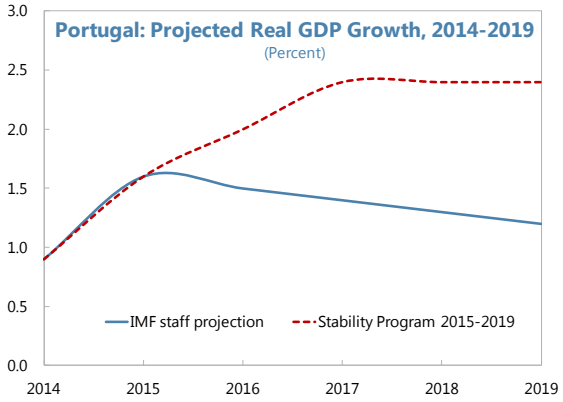


20. Skill mix and skill premium under absorption scenario. The relative skill mix would continue its upward trend under both scenarios, albeit in the absorption scenario at a slower pace (left text chart). The skill premium also continues to decline in both scenarios, albeit at a slower pace in the absorption scenario compared with the baseline (right text chart).

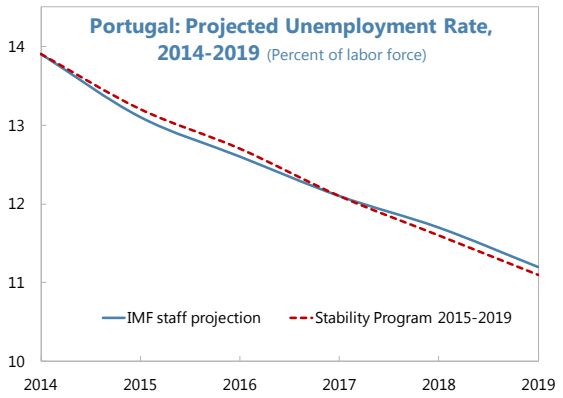


21. What if medium-term growth is higher in the baseline? Staff's projection of medium-term growth is significantly lower than the authorities' projection in the latest Stability Program for 2015–19. The Stability Program expects medium-term growth during 2015–19 to plateau at 2½ percent, rather than 1¼ percent as in staff's baseline (left text chart). These higher growth rates can be motivated by the assumption that large, delayed effects from structural reforms will boost potential growth over the medium term, or by the assumption that the recent declines in

oil prices, financing costs, and euro exchange rate will provide a medium-term push to output growth through increased competitiveness. At the same time, the implications of higher medium-term growth for the labor market are not straightforward. First, while the Stability Program also projects somewhat faster employment growth than staff, the unemployment rate projections are almost identical (right text chart). Second, as regards job creation for lower-skilled workers, faster output growth alone may not be sufficient to facilitate their absorption without policy changes that provide additional support for this labor market group.

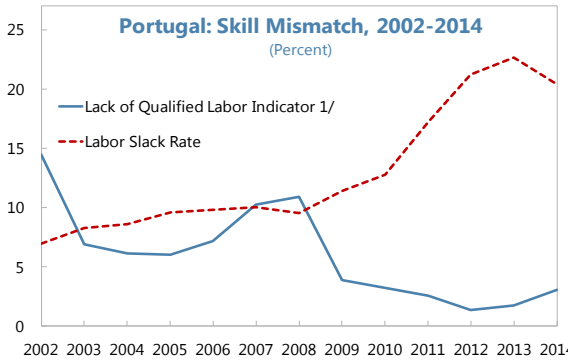


Sources: IMF staff projections; and Stability Program 2015-2019.



Sources: IMF staff projections; and Stability Program 2015-2019.

22. Could skill mismatches constrain the absorption of labor? There are very early indications that finding qualified labor may be emerging as an obstacle to growth. For example, a survey indicator for manufacturing firms measuring firms' views on different factors limiting production suggests that "lack of qualified labor" as a growth bottleneck has been creeping upward since the recovery started in 2013 (text chart). While this survey evidence may be a source of some concern, it does not yet point to a generalized increase in skill mismatches. The same indicator in other sectors has barely changed so far, and even in manufacturing the indicator remains significantly below levels reached before the crisis. Nevertheless, as detailed in OECD (2015), Portugal faces multiple skill challenges over the medium term.



Sources: INE; and IMF staff estimates.
1/ Percent of firms in manufacturing saying that lack of qualified workers is the most important bottleneck for production.

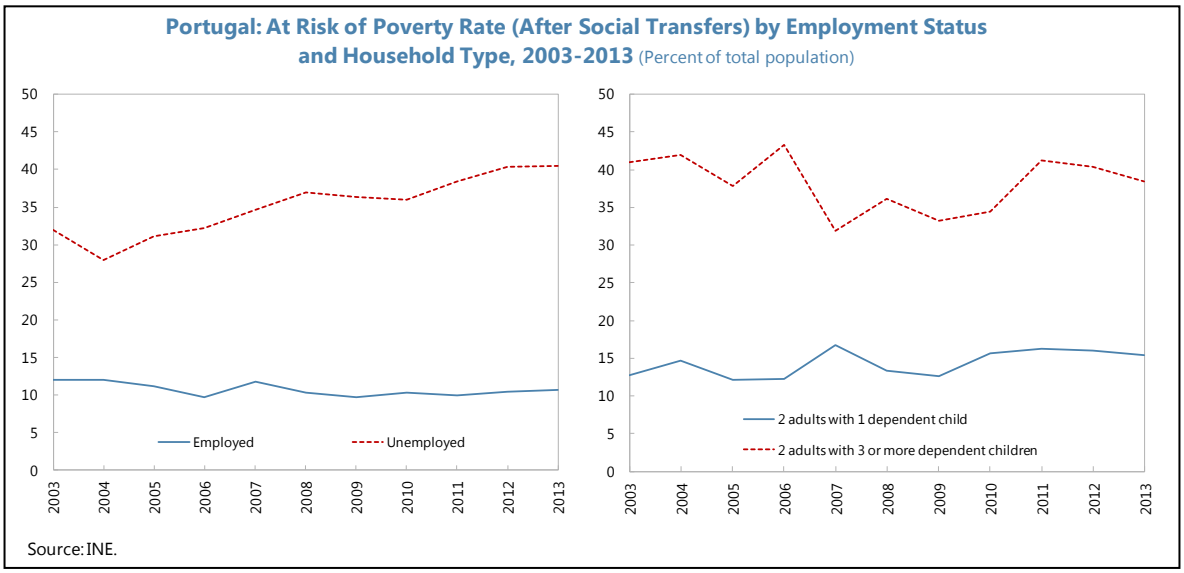
E. Policy Considerations

A Prudent Minimum Wage Policy Would Help Absorb Lower-Skilled Workers.

23. Theory: Minimum wages set a floor for the employer's wage costs for lower-skilled workers, and are therefore critical for facilitating or hindering absorbing labor slack at the lower-skilled end of the labor market. But minimum wages also provide a floor on income levels for

lower-skilled workers, and can therefore be seen as critical for alleviating poverty. In line with these balancing considerations, since Stigler (1946) the economic debate on minimum wages has been framed by two questions: First, to what extent do minimum wages diminish poverty? And second, are there more efficient alternatives than minimum wages to reduce poverty?

24. **Empirics:** On the first question, a large empirical literature has accumulated on the relationship between minimum wages and poverty, particularly for the U.S. The results tend to be sensitive to subtle variations in estimation techniques, but the broad consensus is that it is difficult to establish a significant relationship between the two variables (see, for example, Burkhauser (2014). For Portugal, the empirical link between minimum wages and poverty is especially hard to explore because of the lack of a counterfactual of what would have happened to poverty if the minimum wage would not have changed (in the U.S. case, different states can legislate different minimum wage levels, allowing empirical research to disentangle more convincingly the effect of minimum wages and other variables on poverty rates). Poverty risk in Portugal, however, seems to be strongly associated with labor market status, with poverty risk having increased over the last few years if persons are unemployed (left text chart). Poverty risk also seems to be strongly associated with the number of children in families (right text chart). While these associations may be suggestive of a loose link between minimum wages and poverty, they are far from conclusive. As regards the second question, there seems to be little disagreement among researchers that earned income tax credits (EITCs) tend to be more efficient in reducing poverty than increasing minimum wages (see, for example, Hotz and Scholz (2003)).



25. **Policies:** In Portugal, the public debate on the level of minimum wages is usually framed as a minimum income issue, with the issue of job creation taking a back seat. In line with this, the present plan is to increase (real) minimum wages regularly in line with overall productivity increases. However, overall productivity increases can diverge from the productivity of lower-skilled workers in either direction, depending inter alia on the extent of capital-skill complementarities or the pace of skill-biased technological progress. A more prudent approach

would consider updating the minimum wage regularly for inflation, while deciding on real adjustments every few years or so based on an in-depth study of the employment and productivity trends of lower-skilled workers. At the same time, such an approach may also call for the use of an EITC to fight poverty. While EITCs raise a host of difficult design issues and in the case of Portugal would need to be accommodated under a tight fiscal envelope, an EITC tends to be a more efficient policy tool than increasing minimum wage in two respects: (i) Using EITCs to fight poverty lowers the risk of raising the minimum wage to levels where the skill premium for the lowest-skilled workers gets compressed to an extent that they are substituted by capital or higher-skilled labor. (ii) EITCs can be targeted to low earners that are particularly at risk of poverty, for example families with many children. This does not rule out that a minimum wage floor can be combined with an EITC, with the combination of tools seeking to minimize the minimum wage's adverse effects on employment of the lower-skilled workers, and the EITC targeting poverty reductions in groups at particularly high poverty risks.

Weak Managerial Skills in Portugal Add to the Difficulties of the Lower-Skilled

26. Theory: A worker's productivity depends not only on the worker's own skills or human capital but also on the skills or human capital of co-workers and managers. In terms of human capital accounting, the productivity of a worker can be increased by raising the worker's own skills, or by adding more capital to the production process. From this perspective, active labor market policies (ALMPs) that promote a worker's own skills and facilitate better matching between searching and available vacancies have a strong policy rationale. There are, however, two other channels through which the productivity of lower-skilled workers can be increased (Jones (2014)). First, the productivity of lower-skilled workers depends on how scarce they are. In the case of Portugal, improvements in schooling and education have already increased the scarcity of lower-skilled workers and will continue to do so. And second, there may be complementarities between lower-skilled workers and managers, i.e. the productivity of a lower-skilled worker may be higher when paired with effective managers.

27. Empirics: Managerial skills vary widely across countries and firms (Box 3). As regards the case of Portugal: (i) the overall managerial skill scores are relatively low in comparison with other countries; (ii) the scores for human resource management are particularly low; and (iii), multinational firms in Portugal tend to have much higher managerial skill scores than domestic firms.[6] The cross-country literature on managerial skills highlights several structural features of economies and corporate governance that are correlated with high scores in managerial skills (Bloom and Van Reenen (2010), p. 205). First, stronger product market competition raises average managerial skills scores both by pushing existing firms to improve their managerial practices and by eliminating the tail of exceptionally badly managed firms. Second, less rigid labor market regulations tend to be associated with better scores on human resource

[6] The firms surveyed in the Bloom et al. (2012) cross-country database has more than 50 employees, and thus are not covering micro or smaller SME firms that dominate Portugal's firm distribution.

management as rigid employment protection arrangements may constrain the ability of managers to hire, fire, pay, and promote workers according to their productivity and merit. At the same time the causality could of course also be running from poor managerial skills to more rigid labor market institutions. Third, family-owned firms run by family members or government-owned firms tend to have poorer management practices as there is less pressure to increase the value of the firm. And fourth, export-oriented firms (and particularly multinational firms) tend to have higher managerial skills scores, in line with the stylized fact that higher-performing firms tend to be more export-oriented (Bernard et.al. (2007)).

28. Policies: The cross-country evidence suggests three routes toward improving managerial skills in firms: (1) Superior managerial skills associated with multinational firms would suggest that attracting more FDI to export sectors should be a policy priority. (2) Increased competition in product markets seems to be a powerful approach to reduce the number of badly managed firms. And (3), in parallel with ALMPs, there seems to be scope to extend and deepen existing programs to promote managerial skills in Portugal. However, just like in the case of ALMPs, public programs to raise managerial skills will need to be carefully monitored and evaluated (Martins (2015)).[7] Using instead private consultants could provide a more efficient route to improving managerial skills.

[7] Martins (2015) focuses on selected programs funded by the EU and finds that firm performance can increase significantly following participation in training programs.

Box 3. Managerial Skills: Cross-Country Evidence

This box summarizes cross-country evidence on Portuguese firms' scores on managerial skills. This evidence confirms that managerial skills could be a bottleneck for absorbing labor, and that public policy interventions that focus on improving managerial skills could have high social pay-offs.

Bloom et.al. (2012) put together a cross-country data set that also includes managerial skill scores for 193 Portuguese firms with more than 50 employees. These are relatively large firms by Portuguese standards, and managerial skill deficiencies in smaller firms, which dominate the Portuguese firm distribution, are likely to be much more prevalent.

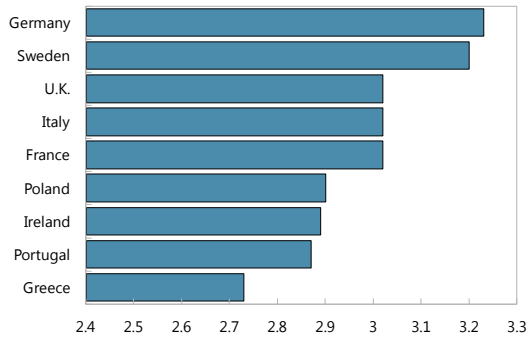
Three cross-country findings stand out:

First, among the EU countries represented in the sample, Portugal's overall managerial skills scores are quite low (Box 3 Figure 1).

Second, among the three managerial skill areas scored—monitoring, targets, human resource management—Portuguese firms are particularly weak on human resource management skills (Box 3 Figure 2).

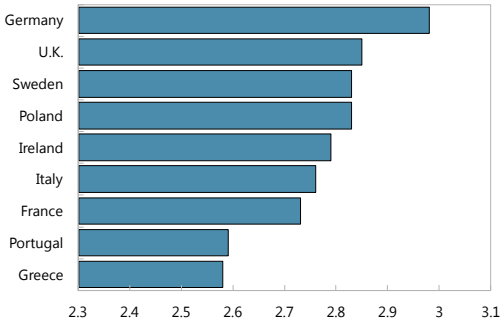
And third, multi-national firms active in Portugal receive much higher managerial skill scores than domestic firms.

Box 3 Figure 1. Managerial Skills Scores



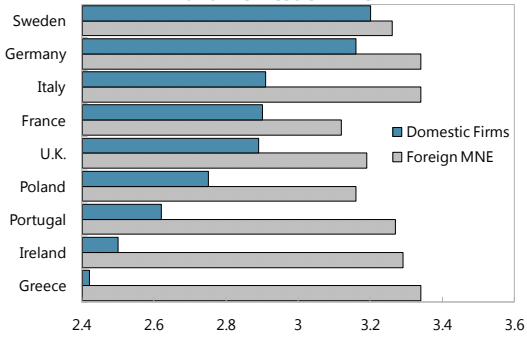
Sources: World Management Survey.

Box 3 Figure 2. Human Resources Management Scores



Sources: World Management Survey.

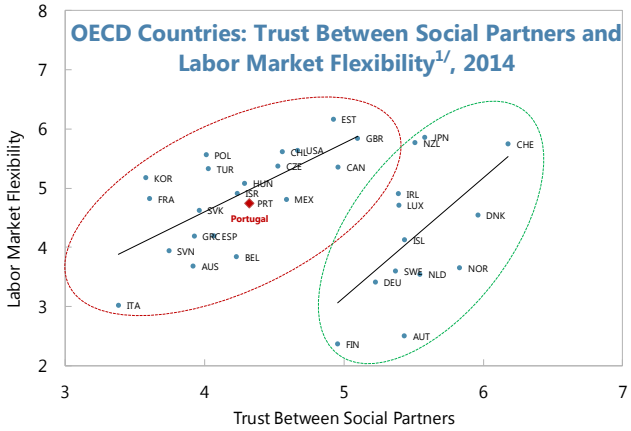
Box 3 Figure 3. Management Skills Scores of Multinationals and Domestic Firms



Sources: World Management Survey.

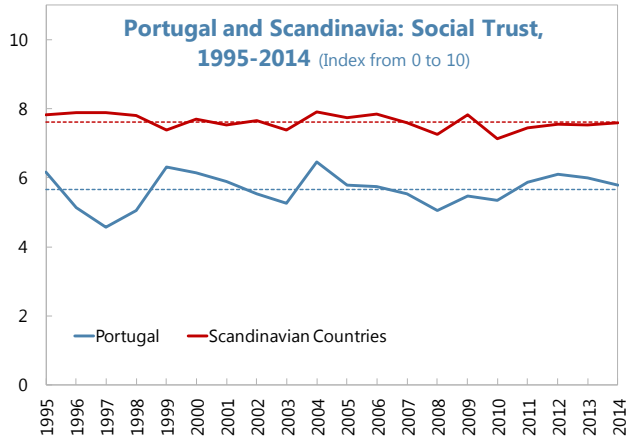
A More Inclusive and Transparent Social Dialogue is Also Important for the Lower Skilled

29. **Theory:** Higher levels of trust between representatives of workers and firms are strongly correlated with better labor market outcomes (see, for example, Blanchard et al. (2013)). At the same time, higher levels of social trust seem also to be correlated with more flexible labor market institutions, although OECD countries seem to break down into two groups of countries with separate upward sloping relationships between trust and labor market flexibility (text chart). Again causality between trust and the rigidity of labor market institutions could be running both ways. In the context of setting minimum wages, Aghion et al. (2008) have argued that low trust among social partners tends to be correlated with strong state regulation of minimum wages, which in turn is correlated with unfavorable labor market outcomes. Higher levels of social trust could allow reaching more complex and comprehensive agreements among social partners that trade off concessions in areas that could include labor and product market reforms.[8] OECD simulations of the effects of labor and product market reforms generally indicate that reforming labor markets only has overall positive effects on output and employment, but these effects come almost exclusively at the cost of labor compensation. Combining labor market reforms with product market reforms, more balanced outcomes can be reached for all social partners involved.



Sources: World Economic Forum.
1/ A higher value corresponds to a more flexible labor market.

30. **Empirics:** Trust levels between social partners tend to be highly persistent over time. Indicators of trust in labor relations for Portugal have fluctuated over the last 20 years, but around a rather stable level, and with little change in the relative distance to the Scandinavian countries, which are generally considered high-trust societies (text chart). Thus, there seem to be no obvious levers to pull that could increase social trust among social partners in a quick and sure-footed manner.



Sources: World Competitiveness Report.

[8] In early-2012, under the program, social partners (but including only part of the trade union movement) and the government reached a tri-partite agreement covering part of the program's structural reform agenda.

31. **Policies:** Nevertheless, as a small open economy with high political cohesion, and given the potentially high pay-offs due to higher trust levels among social partners, at least some potentially trust-enhancing steps could be taken. Options to reduce the influence of present insiders and making the social dialogue more inclusive and transparent could encompass: (i) Widening participation in the present social partner forum, for example by seeking a way to give a more effective voice to the unemployed, lower-skilled, or younger workers. And (ii), publishing more information about actual membership and funding of the present social partner associations.

32. **There are no cookie-cutter solutions to Portugal's job creation problem.** Cross-country experience suggests that each country has to find its own way to match labor market problems to policy solutions. For example, Germany's Hartz reforms are often credited with having brought a sea change to the functioning of the labor market (Hertweck and Sigrist (2012)). However, these reforms only materialized after Germany had faced a long stretch of high unemployment, a broad consensus had formed that piecemeal policy solutions were inadequate, and the Hartz reforms only came together after a painstaking search for specific policy solutions.

Table 1. Portugal: Labor Market Slack Rate, 2002–2014

(thousands of persons, percent of labor force where indicated)

Year	Active Population	Unemployment	Part-timers who would like to work longer hours	Inactive individuals immediately available but not seeking work	Unemployment Rate (percent)	Labor Market Slack Rate (percent)
2002	5,414.3	270.5	63.4	81.0	5.0	7.0
2003	5,433.8	340.4	66.1	81.8	6.3	8.3
2004	5,421.4	359.1	73.0	78.0	6.6	8.6
2005	5,461.4	414.1	85.4	74.2	7.6	9.6
2006	5,499.6	420.6	85.8	83.9	7.6	9.8
2007	5,533.1	440.6	93.9	73.6	8.0	10.0
2008	5,534.6	418.0	95.2	68.2	7.6	9.5
2009	5,486.1	517.4	93.3	70.5	9.4	11.4
2010	5,489.7	591.2	96.8	72.5	10.8	12.8
2011	5,428.3	688.2	214.3	170.3	12.7	17.2
2012	5,382.6	835.7	251.7	229.0	15.5	21.2
2013	5,284.6	855.2	258.6	277.4	16.2	22.7
2014	5,225.6	726.0	245.2	273.3	13.9	20.4

Appendix I. Data Appendix

A. Data Sources

The main data sources for this chapter are INE's Labor Force Survey (LFS) and National Accounts database, and the AMECO database. Additional data sources are listed in the table below.

Variable	Source
Working age population	INE, Labor Force Survey INE, Resident population projections 2012-60
Active population	INE, Labor Force Survey
Employed population	INE, Labor Force Survey
Unemployed population	INE, Labor Force Survey
Available inactive population but not searching	INE, Labor Force Survey
Underemployed part-time employed population	INE, Labor Force Survey
Average net monthly income of employees	INE, Labor Force Survey
GDP	INE, National Accounts
Compensation of employees	INE, National Accounts
Gross Fixed Capital Formation	INE, National Accounts
Manufacturing Utilization Rate	INE, Industry Survey
Net Capital Stock	AMECO
Permanent Emigration	INE, Labor Force Survey – Emigration Survey
Permanent Immigration	INE, Labor Force Survey – Emigration Survey
Managerial Skills Scores	World Management Survey

B. Data Construction

- **Lower-skilled labor** comprises all workers with less than primary, primary, and lower secondary education levels (ISCED levels 0-2), following EU conventions.
- **Skilled labor** comprises all workers with higher education levels (ISCED levels 3-8).
- **Adjusted Labor Force** is calculated using data from the LFS as the sum of active population and the subset of inactive population who is available to work but not seeking jobs.

- **Labor Slack** is calculated using data from the LFS as the sum of unemployed population, the subset of inactive population who is available to work but not seeking, and the subset of the part-time employed population who would like to work longer hours times a factor of 0.5.
- **Labor Slack Rate** is calculated as the ratio of labor slack to adjusted labor force.
- **Labor Productivity** is calculated as output per employed worker.
- **Skill Mix** is calculated as the ratio of skilled to unskilled employment provided by the LFS.
- **Skill Premium** is calculated using data from the LFS as the ratio of average net monthly income of skilled employees to the average of net monthly income of lower-skilled employees. Net monthly income includes all payments that are received on a regular basis and with a periodicity less than or equal to one month, namely: commissions; bonuses; overtime payments; Christmas or vacations subsidies paid on a monthly basis; etc.

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STRUCTURAL REFORMS TO BOOST EXTERNAL COMPETITIVENESS[1]

Questions, Answers, and Possible Objections

What are the specific questions this chapter tries to answer? Why does Portugal need to maintain an improved external performance on a sustainable basis? Why can such sustainability not be taken for granted and why is it necessary to keep strengthening external competitiveness? Going forward, what should be the structural reform priorities for Portugal?

Why is answering these questions important for this Article IV consultation? Portugal achieved an impressive current account turnaround in the past few years, from a deficit of 10½ percent of GDP in 2010 to a half percent surplus in 2013. While this has helped to stabilize, though at very weak levels, its external stock positions, it came with a cost of large internal slack. Nonetheless, the improved external performance still led to varying degrees of optimism: some sensed structural reforms as less urgent now, while others believed that what was still needed was time, as past reforms had already set Portugal on a right path. Being overly optimistic, however, could entail consequences – the country might face the risk of again building up external imbalances, albeit from a much weaker initial position.

What are the main answers to these questions? To help reduce its still high external stock vulnerabilities, Portugal needs to maintain its improved external performance on a sustainable basis. Such sustainability, however, cannot be taken for granted. When the economy recovers, absent continued strengthening of external competitiveness, the picking up of domestic consumption and higher investment—needed to help re-absorb the labor slack through job creation—will generate pressures that may lead to resurgence of flow imbalances. Adding to the concern is the uncertainty on competitiveness gains associated with the observed gross exports increase. The fact that Portugal continues to lag behind many of its peers and trade competitors in structural areas closely linked to exports suggests that its improved external performance might be of a more temporary nature than hoped for. Going forward, Portugal should continue structural reforms, such as further increasing labor market flexibility and enhancing competitions, to strengthen its external competitiveness.

What are the possible objections to these answers? The growth of exports observed in the past few years, and therefore the improvement in current account balance, could be of a more permanent nature. In particular, the growth of exports had been to a large extent due to a new generation of firms, an indication of past structural reforms bearing fruit.[2] The dichotomy of tradable versus non-tradable sectors had become more and more obscure. It might be problematic to use manufacturing industries as a proxy for tradable sectors.

[1] Prepared by Li Zeng and Dmitry Gershenson.

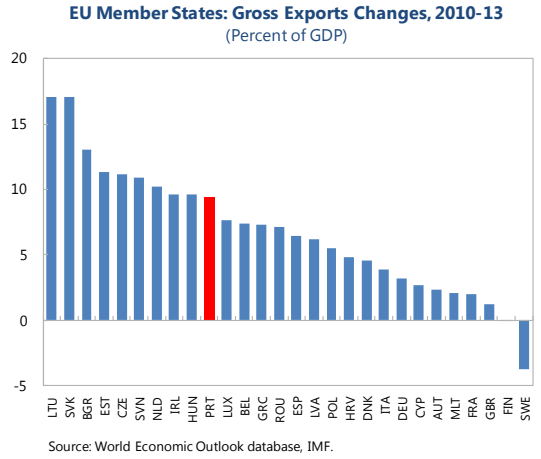
[2] Please refer to Box 1 of chapter *Taking Stock of Structural Reforms: a Firm-Level Perspective* for detailed discussions.

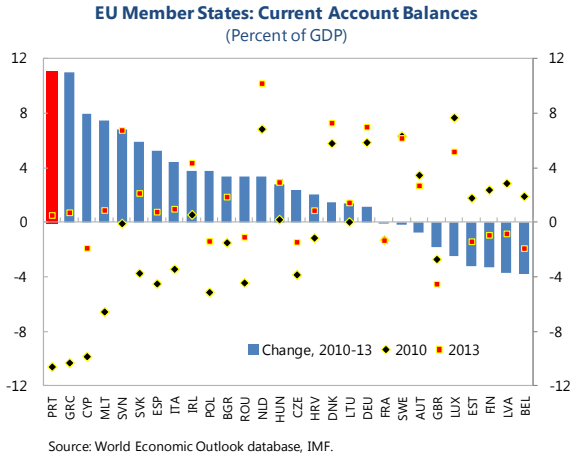
To absorb the still-large internal slack, and to reduce the very high stock of external imbalances at the same time, competitiveness gains achieved in the past few years need to be maintained on a sustainable basis. An investigation of structural factors with strong empirical linkages to external competitiveness suggests, however, that the sustainability of Portugal's external improvement cannot be taken for granted. The country needs to continue push forward with structural reforms in a few key areas that have been identified during the program.

A. Portugal's External Adjustments, 2010–2013

1. Portugal achieved impressive external adjustments in the past few years (Figure 1). During the period from 2010 to 2013 Portugal's gross exports, as a share of GDP, increased from just over 30 percent to above 40 percent. Such an increase in gross exports brought about a big turnaround in the current account balance, from a deficit of 10½ percent of GDP in 2010, largest among all the EU member states, to a half-percent-of-GDP surplus in 2013. The 11-percent-of-GDP improvement in current account balance was the biggest among all the EU economies during this period.

Figure 1. EU Member States: Changes in Gross Exports and Current Account Balances



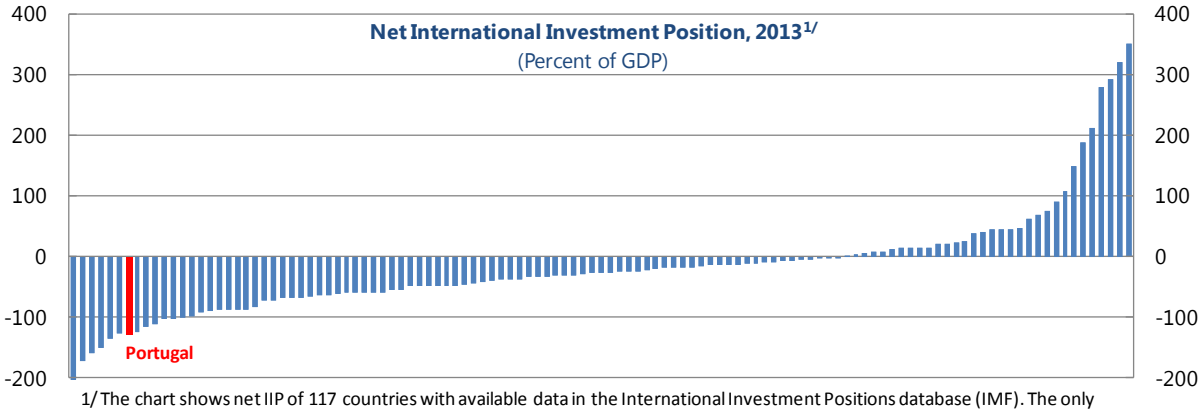


2. The improved external performance needs to be maintained on a sustainable basis, which requires continued strengthening of external competitiveness.[3] Portugal's stock external position is still among of the weakest in the world, as indicated by both its large negative IIP position and its high level of gross external debt (Figure 2). On the other hand, labor market slack, a broader measure of labor under-utilization, is still around 20 percent, compared

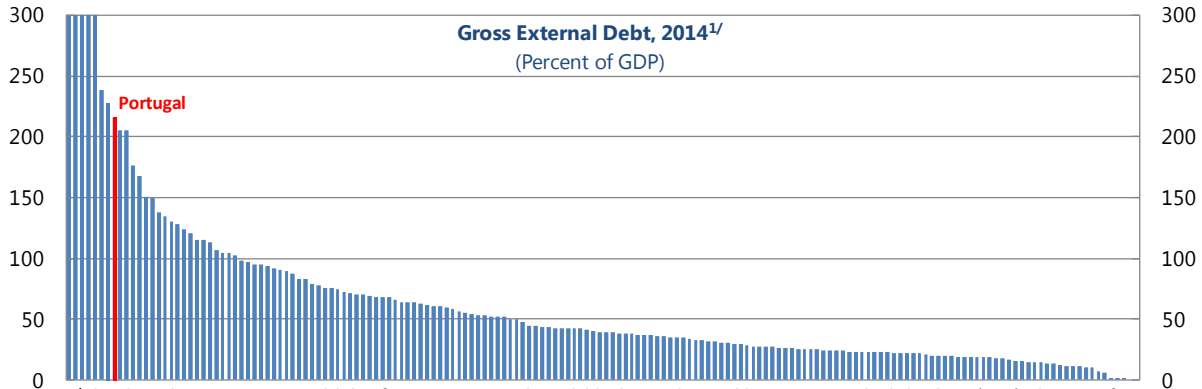
[3] There are different measures of external competitiveness. As explained in more details later, it is interpreted in this paper as a country being able to export more domestic value-added, *measured as percent share of GDP*.

to a level below 10 percent prior to the crisis.[4] To absorb the labor slack through job creation, the economy will have to lift its growth trajectory through higher investment, which in turn requires continued improvement in external competitiveness to avoid resurgence of flow external imbalances.

Figure 2. External Positions



1/ The chart shows net IIP of 117 countries with available data in the International Investment Positions database (IMF). The only country with a negative IIP over 200 percent of GDP is Iceland (450 percent of GDP, cropped in the chart).



1/ The chart shows gross external debt of 168 countries with available data in the World Economic Outlook database (IMF). There are five countries/regions with gross external debt over 300 percent of GDP (cropped in the chart): Ireland, Malta, Lesotho, Hong Kong and Cyprus.

Sources: International Investment Position Statistics (IMF), and World Economic Outlook database (IMF).

B. Why is There Concern About Sustainability?

3. Concerns on sustainability of Portugal's improved external performance arise, in part, from the asymmetric adjustments in exports and imports. As shown in Figure 1, Portugal's gross exports increase during 2010–13, 9½ percent of GDP, ranked only 10th among all the EU countries. Its 11-percent-of-GDP improvement in current account balance was nonetheless the largest. This indicates that part of Portugal's current account improvement was

[4] For further discussion of labor market slack in Portugal, see Box 1 in *IMF Country Report 15/21*.

due to import compression caused by the crisis. Once the economy recovers, imports will likely pick up, raising the risk of pushing the small current account surplus into deficit again.

4. Adding to the concern is the uncertainty on competitiveness gains associated with the observed gross exports increase. The illustrative example in Table 1 shows that, with the same observed adjustments in gross exports and imports, different changes in imports of intermediate inputs could give rise to very different pictures of real contributions by exports and imports.

Table 1. Illustrative Example: Why Gross Exports Could be Misleading?

(% of GDP)	Gross		Real contributions to trade balance adjustments	
	Before crisis	After crisis	Increase in intermediate input imports	
			+2	+8
Exports	30	40	+8	+2
Imports	40	39	-3	-9
Trade balance	-10	1	+11	+11

5. Studying domestic value-added (DVA) exports can help to isolate the real impact of competitiveness gains on external adjustments. DVA exports exclude imported intermediate inputs from gross exports, thereby reflecting the true external demand for domestic products.[5] The differentiation between DVA and gross exports is particularly important to countries where processing trade, such as oil processing and export, plays a big role.[6]

C. Structural Factors and DVA Exports

6. While data on DVA exports often come with a significant time lag, historical information suggests that levels of countries' DVA exports are closely linked to a few structural factors.[7] The latest DVA exports data are for 2011. Figure 3 shows that, among the EU member states, DVA exports are strongly correlated with a small set of structural indicators:

[5] Please refer to Figure 1 of Koopman, Wang and Wei (2014) for a more rigorous definition of DVA exports as used in the econometric analysis of this paper, and for more discussions on its applications.

[6] Oil processing and export is important to Portugal. According to IMF (2013), between January 2009 and August 2013, fuel exports was the second-largest contributor to the recovery in exports, with an improvement of 1½ percent of GDP that accounted for about a quarter of the cumulative increase in exports.

[7] It is DVA exports as share of *GDP*, instead of as share of *gross exports*, that is being examined here.

- *Degree of employment protection:* The restrictiveness of employment protection reflects, to certain extent, the rigidity of a country's labor market. The top-left panel of Figure 3 suggests that countries with lower degrees of employment protection tend to export more DVA.

- *Unit wage cost gap between services and manufacturing industries:* Since wages are largely driven by sectoral productivities, a bigger such gap would indicate that the development a country's manufacturing industries is further ahead of its service sectors. Following such a interpretation, the top-right panel of Figure 3 seems to suggest that countries with more developed manufacturing industries (relative to service sectors) tend to export more DVA.

- *Intensity of local competition:* More intense local competitions could help boost external competitiveness by forcing domestic producers to raise productivity and cut costs. The bottom-left panel of Figure 3 is an indication of such relationship.

- *Degree of integration with the global value chain*[8]*:* This indicator can be interpreted as a composite index that captures the "gravity factors" of international trade, for instance, distance to market - countries located closer to major exporters such as Germany tend to be more integrated into the global value chain. It is clear from the bottom-right panel of Figure 3 that countries better integrated into the global value chain tend to export more DVA.

Such Empirical Linkages Between DVA Exports And These Structural Factors Are Quite Robust

- These indicators seem capturing different structural aspects that affect DVA exports. The panel regression results in Table 2 show that, they not only have strong bilateral relationships with DVA exports, their coefficients all remain highly significant when included simultaneously in the same regression.

- The strength of the empirical linkages does not seem particularly sensitive to the sample periods. In Table 3, the regressions in columns (2) and (4) test the relationships between the structural indicators and DVA exports using pre-crisis samples, while columns (3) and (5) are based on samples covering 2009–11. All the coefficients stay highly significant.

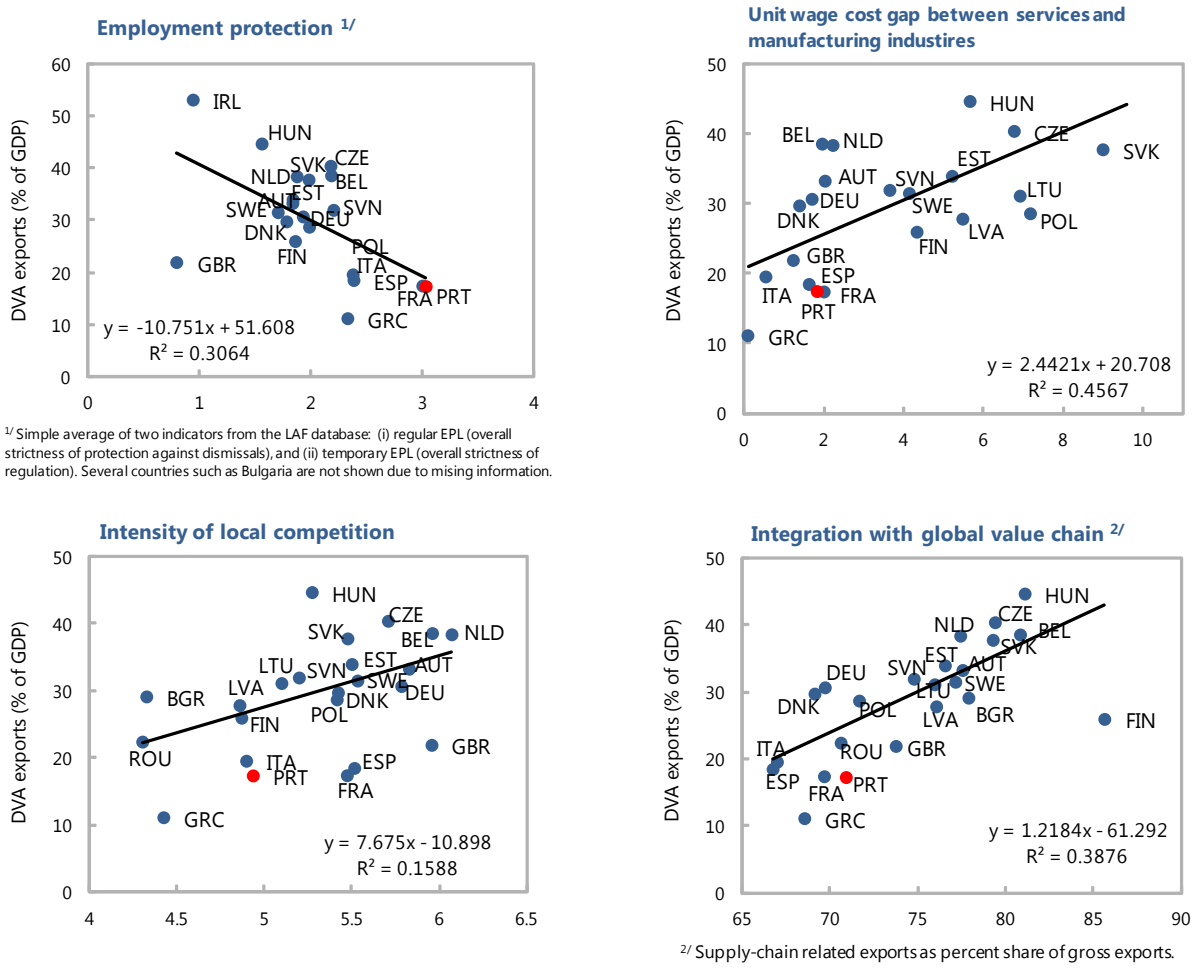
- The relationships between DVA exports and the structural indicators stay qualitatively the same, even after adding additional control variables, such as income levels, exchange rates, major trade partners' growth or time dummies to the model (Table 4).[9]

[8] It is defined as the percent share of global value chain related exports in gross exports. In the context of Koopman, Wang and Wei (2014), global value chain related exports is the sum of components of (2) to (9).

[9] Income levels and exchange rates are not included in the baseline specification because of endogeneity concerns.

7. These structural factors also have similar strong relationships with gross exports. Reported in Table 5 are regressions for gross exports, based on the same samples as in Table 2. The results are similar, suggesting that countries with: (i) lower degree of employment protection; (ii) larger unit wage cost gap between services and manufacturing industries; (iii) more intense local competitions; and (iv) better integration into the global value chain, tend to export more.

Figure 3. EU Member States: Domestic Value-Added Exports and Structural Indicators, 2011



1/ Simple average of two indicators from the LAF database: (i) regular EPL (overall strictness of protection against dismissals), and (ii) temporary EPL (overall strictness of regulation). Several countries such as Bulgaria are not shown due to mising information.

2/ Supply-chain related exports as percent share of gross exports.

Note: Cyprus, Luxeumberg and Malta are excluded from the sample for particularly large financial sectors in these economies. Croatia is not included for the lack of information on domestic value-added exports.
Sources: LAF database, European Commission; Global Competitiveness Index database, World Economic Forum; World Input-Output Database; World Economic Outlook database, IMF; and IMF staff estimations.

Table 2. DVA Exports and Structural Indicators 1/

Dependent variable: DVA exports (% of GDP)	(1)	(2)	(3)	(4)	(5)
Degree of employment protection	-8.858***				-4.078***
	(0.916)				(0.922)
Unit wage cost gap b/w services		0.974***			0.964***
and manufacturing industries		(0.125)			(0.183)
Intensity of local competition			5.295***		4.473***
			(1.367)		(1.253)
Degree of integration with				0.978***	0.587***
global value chain				(0.083)	(0.114)
Observations	170	214	168	216	134
R-squared	0.358	0.224	0.083	0.394	0.667

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

1/ Cyprus, Malta and Luxeumberg are excluded from the sample. Croatia is not in the regressions because of missing DVA information. The sample covers the period 2003-11. The indicator of local competition intensity became available in 2005. Bulgaria, Latvia, Lithuania and Romania has no information on employment protection.

Table 3. Robustness Check: Subsample Periods 1/

Dependent variable: DVA exports (% of GDP)	(1) 2005-11	(2) 2005-08	(3) 2009-11	(4) 2003-08	(5) 2009-11
Degree of employment protection	-4.078***	-3.852***	-4.290***	-4.628***	-5.591***
	(0.922)	(1.159)	(1.501)	(0.964)	(1.543)
Unit wage cost gap b/w services	0.964***	0.766***	1.583***	0.463**	1.334***
and manufacturing industries	(0.183)	(0.237)	(0.306)	(0.182)	(0.316)
Intensity of local competition	4.473***	4.100**	6.048***		
	(1.253)	(1.646)	(1.979)		
Degree of integration with	0.587***	0.590***	0.520***	0.640***	0.592***
global value chain	(0.114)	(0.161)	(0.161)	(0.126)	(0.170)
Observations	134	74	60	110	60
R-squared	0.667	0.666	0.716	0.601	0.667

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

1/ Cyprus, Malta and Luxeumberg are excluded from the sample. Croatia is not in the regressions because of missing DVA information. The sample covers the period 2003-11. The indicator of local competition intensity became available in 2005. Bulgaria, Latvia, Lithuania and Romania has no information on employment protection

Table 4. Robustness Check: Other Factors 1/

Dependent variable: DVA exports (% of GDP)	(1)	(2)	(3)	(4)	(5)
Degree of employment protection	-4.078***	-2.721***	-4.319***	-4.025***	-3.921***
	(0.922)	(0.984)	(0.930)	(0.923)	(0.942)
Unit wage cost gap b/w services	0.964***	1.279***	0.887***	0.983***	1.042***
and manufacturing industries	(0.183)	(0.202)	(0.189)	(0.184)	(0.193)
Intensity of local competition	4.473***	3.090**	4.849***	4.546***	4.908***
	(1.253)	(1.282)	(1.269)	(1.254)	(1.310)
Degree of integration with	0.587***	0.577***	0.564***	0.586***	0.553***
global value chain	(0.114)	(0.110)	(0.115)	(0.114)	(0.121)
GDP per capita (PPP-based)		0.280***			
		(0.086)			
Real effective exchange rate			0.089		
(deviation from long-term mean)			(0.057)		
Growth of major trade partners'				-0.239	
domestic demand				(0.230)	
Time dummies	No	No	No	No	Yes
Observations	134	134	134	134	134
R-squared	0.667	0.692	0.673	0.669	0.673

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

1/ The regressions are based on the same sample as the baseline, Table 2 column (5).

Table 5. Gross Exports and Structural Indicators 1/

Dependent variable: Gross exports (% of GDP)	(1)	(2)	(3)	(4)	(5)
Degree of employment protection	-16.183***				-5.473***
	(1.979)				(1.913)
Unit wage cost between services		2.113***			2.286***
and manufacturing industries		(0.253)			(0.380)
Intensity of local competition			9.596***		6.811***
			(2.866)		(2.599)
Degree of integration with				2.082***	1.344***
global value chain				(0.168)	(0.237)
Observations	170	214	168	216	134
R-squared	0.285	0.247	0.063	0.419	0.661

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

1/ The regressions are based on the same samples as the corresponding columns in Table 2.

D. Where Does Portugal Stand?

8. The increase in Portugal's DVA exports during 2010–13 and competitiveness gains achieved in this period are likely much smaller than indicated by the growth in gross exports. The empirical relationship established in the previous section suggests a 2 to 3 percent of GDP increase in Portugal's DVA exports between 2010 and 2013.[10] This implies that the 10-percent-of-GDP growth in gross exports was to a large extent due to increase in imports of intermediate inputs. As illustrated by the example in Table 1, this would also imply that imports compression for domestic consumption and investment had played a bigger role in the current account adjustments than indicated by the small decline in gross imports.

9. The latest information on structural factors identified in the previous section also suggests that the sustainability of Portugal's external improvement cannot be taken for granted (Figure 4). In 2014, Portugal ranked 21st among the EU countries in terms of labor market efficiency.[11] Similarly, the intensity of local competition in Portugal ranked only 22nd among the EU countries. The bottom panels indicate that the key bottlenecks constraining the development of manufacturing industries, or tradable sectors more broadly, are not removed yet – the Portuguese consumers are still paying the highest income-adjusted energy prices, only next to Cyprus, and most of the FDI is still flowing into the non-tradable sectors.

E. Summary

Is The Paper Saying That Portugal's Improved External Performance Is Unsustainable?

10. No. But there are reasonable doubts. Gross exports is a flawed measure of competitiveness gains. DVA exports is a better measure and has exhibited strong and robust empirical linkages with a small set of structural indicators. Investigation on DVA exports suggests that the competitiveness gains achieved by Portugal are likely much smaller than indicated by the growth of gross exports. In addition, the fact that Portugal continues to lag behind many of its peers and trade competitors in these areas suggests that Portugal's improved external performance is likely of a more temporary nature than hoped for.

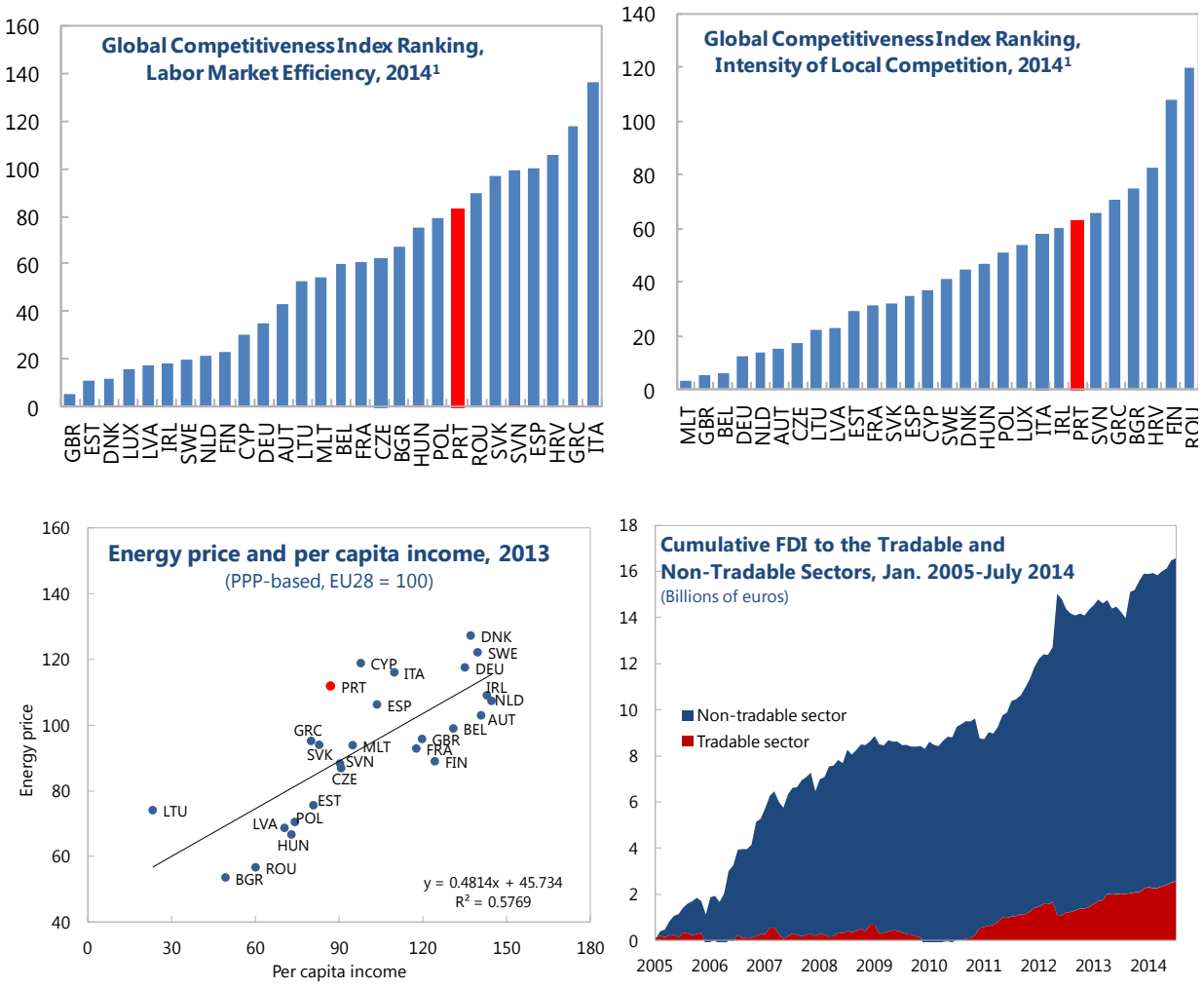
[10] This is the difference between the fitted values of Portugal for 2010 and 2013, based on the regression reported in column (5) of Table 2. For 2013, the unit wage cost gap between services and manufacturing industries in 2012 (latest available) was used. The range between 2 to 3 percent of GDP reflects different assumptions on the change in degree of integration with the global value chain between 2010 and 2013, from no change to a sharp rise.

[11] The labor market efficiency index from the Global Competitiveness Index database is used in the top-left panel because the latest employment protection information from the LAF database is for 2013.

What Should Portugal Do?

11. Continue structural reforms to boost external competitiveness. The country needs faster growth, and therefore higher investment, to absorb the labor slack through job creation. Considering the very high external stock imbalances, it should avoid reopening the flow imbalances, which requires continued strengthening of external competitiveness. As a currency union member with limited fiscal space, structural reforms are the only available tool at the sovereign level.

Figure 4. Latest Structural Indicators



[1]A lower rank corresponds to a more advantageous competitive position.

Sources: Banco de Portugal; Eurostat; World Economic Forum; and IMF staff calculations.

What Structural Reforms Should Portugal Do?

12. The structural factors identified in this paper should not be interpreted narrowly. For instance, in addition to employment protection, there are also other labor market indicators that exhibit strong empirical relationships with DVA exports. Nonetheless, these indicators indeed point to a few key areas, such as labor market flexibility and development of manufacturing/tradable sectors, which are consistent with the policy recommendations during the program.

Appendix I. Data Appendix

Data: Summary Statistics and Sources

Variable	Unit	Obs.	Mean	Std. Dev.	Min	Max	Sources
DVA exports	Percent of GDP	216	28.7	8.8	9.8	53.1	Koopman, Wang and Wei (2014) and IMF staff calculations
Gross exports	Percent of GDP	216	45.2	18.2	13.3	96.0	Koopman, Wang and Wei (2014) and IMF staff calculations
Employment protection	Index	170	2.0	0.7	0.8	3.8	LAF database, European Commission
Unit wage cost gap between services and manufacturing industries	Index	214	4.5	4.3	-4.1	23.9	LAF database, European Commission
Intensity of local competition	Index	168	5.4	0.5	4.1	6.4	Global Competitiveness Index database, Global Economic Forum
Integration with global value chain	Percent	216	73.8	5.7	59.8	85.6	Global Competitiveness Index database, Global Economic Forum
PPP-based GDP per capita	Thousand USD	216	26.2	9.1	7.8	42.7	World Economic Outlook database, IMF
Real exchange rate (deviation from long-term mean)	Percent	216	6.8	12.0	-18.8	54.5	International Financial Statistics (IMF) and IMF staff calculations
Real growth of major trade partners' domestic demand	Percent	216	1.9	2.0	-4.2	4.4	DOTS (IMF), World Economic Outlook database (IMF) and IMF staff calculations

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GROWTH AND INSTITUTIONAL CHANGE IN PORTUGAL[1]

Questions, Answers, and Possible Objections

What are the questions this chapter tries to answer? In the wake of the sovereign debt crisis and the extended period of low growth before that, what needs to be done to put Portugal on a higher growth trajectory?

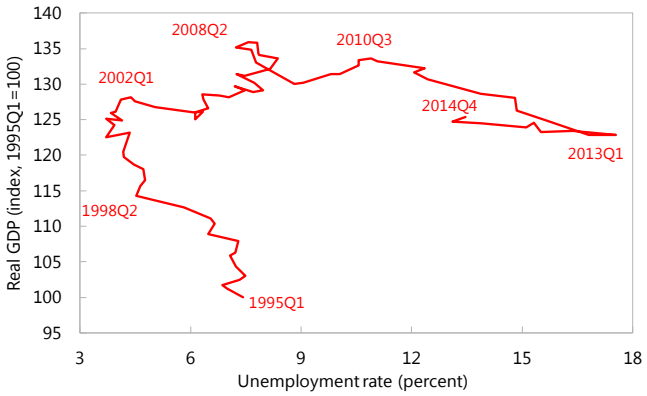
Why is answering these questions important for this Article IV consultation? Fast growth is essential for restoring the internal balance and improving the country's external position.

What are the answers to these questions? Minimizing rent-seeking and improving education will channel the country's resources to productive uses and enhance growth prospects.

What could be possible objections to these answers? Structural reforms that have already been implemented will raise the productivity growth (and the overall GDP growth) without the need for any additional measures.

1. Starting in the early 2000s, Portugal's growth stagnated while unemployment grew. The debt crisis had accentuated the problem, but did not create it, and the post-crisis recovery has been modest, at least in terms of GDP growth. This underscores the fact that while the flow adjustment has been large, the recovery has done little to eliminate Portugal's significant stock imbalances.

Real GDP and Unemployment Rate, 1995 - 2014



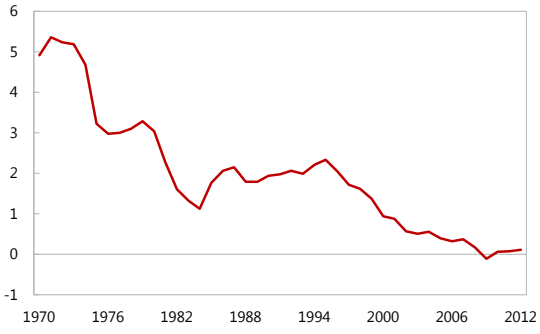
Sources: Haver Analytics; and IMF staff calculations.

2. Looking forward, unfavorable demographic trends and dearth of investment render Portugal's growth challenge even more acute. The earlier boom episodes have largely been due to factor accumulation, not productivity growth (Amador and Coimbra, 2007). In fact, productivity growth has been declining over the past half-century. Portugal's working-age population is projected to fall by 3.9 percent between 2014 and 2020 due to both aging and emigration,[2] and the country's capital stock is depleting because of underinvestment. In such an environment, encouraging investment in the productive sectors is essential for moving to a higher growth path.

[1] Prepared by Dmitry Gershenson and Li Zeng.

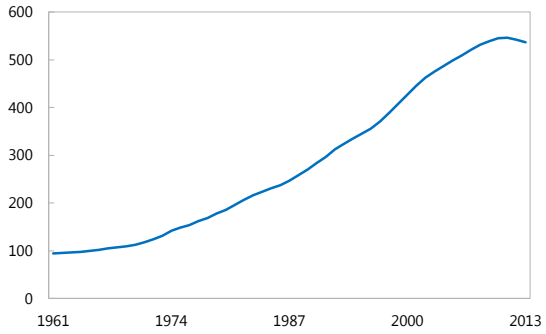
[2] That is the central scenario prepared by the National Institute of Statistics. There are also the optimistic and the pessimistic scenarios, which envisage working-age population declines of 3.7 and 5.9 percent, respectively (INE, 2014).

Portugal: Total Factor Productivity Growth
(Percent; 10-year average)



Sources: Haver Analytics; and IMF staff calculations.

Net Capital Stock
(Billions of 2010 euros)

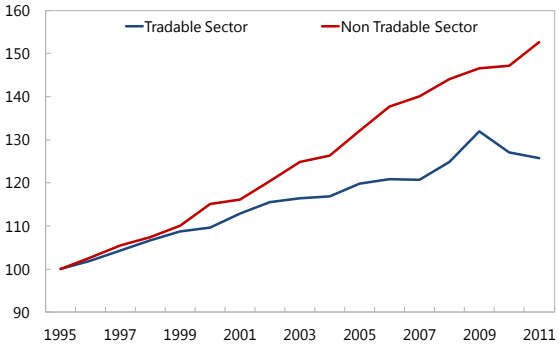


Source: Haver Analytics.

3. Misallocation of resources has been stifling growth. Dias *et. al.* (2014) explain the sluggish growth by the inefficient allocation of resources, especially in the nontradable sector, and Amador and Soares (2012) make a case for improving competitive environment in that sector. Pina and Abreu (2012) and Reis (2013) caution that earlier inflows into Portugal were misallocated to the relatively unproductive nontradable sector.

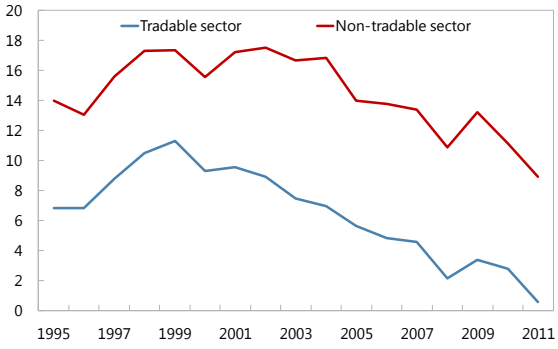
4. What allows a less productive sector to attract investment and even thrive? The nontradable sector is less productive than the tradable sector, but it offers opportunities for rent-seeking—activities wherein private return exceeds social return—due to the prevailing noncompetitive environment, such as barriers to entry, heavy regulation, etc. [3] This results in higher mark-ups, which makes the nontradable sector an attractive investment destination and leads to misallocation of resources, with companies devoting scarce resources to socially unproductive activities.[4]

Unit Labor Cost in the Tradable and Non-Tradable Sectors
(Index, 1995=100)



Sources: Banco de Portugal; Eurostat; INE; OECD; and IMF staff calculations.

Tradable and Non-Tradable Sector Markups
(Percent)



Sources: Banco de Portugal; Eurostat; INE; OECD; and IMF staff calculations.

[3] There is extensive literature devoted to the social costs of rent-seeking, starting with the seminal work by Krueger (1974).

[4] The charts are based on the analysis by A. Jaeger and A. Gomes.

5. Breaking the nontradable sector's stranglehold over the economy requires institutional change. Institutions are constraints imposed on human interactions to create order and reduce uncertainty (North, 1991), and good institutions are those that ensure a relatively equal access to economic opportunity and guarantee that private returns are commensurate with social returns (IMF, 2005). While institutions are naturally persistent, real change is possible (Acemoglu and Robinson, 2008)

6. Portugal is in an advantageous starting position. A cross-country study finds that institutional transitions are associated with trade openness, press freedom, "good" neighbors, and higher levels of education (IMF, 2005). In the Portuguese context—with abundant press freedom and "good" EU neighbors—the focus should be on developing the tradable sector to encourage trade openness[5] and on further investment in education.

7. The time for reforms is now. The literature suggests that reforms have to be introduced at the height of the crisis or in its wake, when the need for reforms is widely appreciated and the opposition to reforms is weak (Drazen and Easterly, 2001). Rajan (2004) points to the post-crisis recovery as the perfect time to proceed, since the available resources may be used to address concerns of those left behind by reforms.

8. Critically, the reforms need to enjoy domestic political support. The early 1990s India is a case in point, where the technocratic conviction of key public officials and the strong pro-openness and pro-liberalization industrial lobby paved the way for successful economic reforms (Mukherji, 2008). Ideally, there can be created a self-perpetuating pro-reform coalition, which would make reforms irreversible.

9. To summarize, government policies must strengthen Portugal's tradable sector by minimizing rent-seeking and improving education. Steps to minimize rent-seeking ensure that the country's scarce resources are channeled to productive activities and strengthen the clout of the pro-reform tradable sector companies. Better education, with particular emphasis on vocational training, allows the tradable sector companies to compete more successfully in the global economy.

[5] The importance of trade in improving institutions is also noted by Levchenko (2013).

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