INTERNATIONAL MONETARY FUND

European Department

From Crisis to Convergence

Charting a Course for Portugal

Edited by Dmitry Gershenson, Albert Jaeger, and Subir Lall

European Department

From Crisis to Convergence: Charting a Course for Portugal

Edited by: Dmitry Gershenson, Albert Jaeger, and Subir Lall

INTERNATIONAL MONETARY FUND

Cataloging-in-Publication Data
Joint Bank-Fund Library

Names: Gershenson, Dmitriy, editor. | Jaeger, Albert, editor. | Lall, Subir, editor. | International Monetary Fund. | International Monetary Fund. European Department.
Title: From crisis to convergence : charting a course for Portugal / editors: Dmitry Gershenson, Albert Jaeger, Subir Lall.
Other titles: Charting a course for Portugal. | Departmental paper series (International Monetary Fund. European Department)
Description: Washington, DC : International Monetary Fund, 2016. | At head of title: European Department. | Includes bibliographical references.
Identifiers: ISBN 978-1-51359-722-5 (paper)
Subjects: LCSH: Portugal – Economic conditions. | Portugal – Fiscal policy. | Economic stabilization – Portugal.
Classification: LCC HC392.F76 2015

Publication orders may be placed online, by fax, or through the mail:
International Monetary Fund, Publication Services
P.O. Box 92780, Washington, DC 20090, U.S.A.
Tel. (202) 623-7430 Fax: (202) 623-7201
E-mail: publications@imf.org
www.imfbookstore.org
www.elibrary.imf.org

Acknowledgments

The authors are grateful to Mahmood Pradhan, deputy director of the European Department, for his valuable comments and support. We greatly benefited from insightful conversations with many counterparts in the government of Portugal and the Bank of Portugal, and other public and private entities. In particular, we would like to thank João Amador, Cristina Casalinho, José Miguel Costa, Maria Inês Drumond, Pedro Gonçalves, Susana Filipa Lima, Ines Lopes, Bernardo Afonso Maia, Álvaro Matias, Rui Miguel Pinto, and Ana Rangel Gonçalves, Carla Soares, and Susana Videira. Last but not least, we benefited from discussions with IMF colleagues, including Marcos Souto and Constant Verkoren.

This Departmental Paper was edited by Dmitry Gershenson, Albert Jaeger, and Subir Lall, and prepared by a staff team under the overall direction of Subir Lall and led by Albert Jaeger. Contributors are Matthew Gaertner, Irene Yackovlev, and Li Zeng (all EUR), Maximilien Queyranne (FAD), Luciana Juvenal (ICD), Ana Gomes and Elsa Martins (both IMF Office in Portugal), Wolfgang Bergthaler (LEG), Antoine Bouveret (MCM), and Kevin Wiseman (SPR). Federico Diaz Kalan (SPR), Dustin Smith and Jessie Yang (both EUR) contributed to preparation of figures and tables. Daniela Santos (EUR) managed the overall document production and word processing. Departmental Paper series editor Joseph Procopio of the Communications Department's Editorial and Publications Division oversaw the editing and production of this report, and Andreas Adriano (COM) guided the dissemination and outreach process.

Contents

Acronyms

ACE	Allowance for corporate equity
ALMPs	Active labor market policies
CC	Constitutional Court
CGA	Public sector pension scheme
CIT	Corporate income tax
DVA	Domestic value-added
EB	External balance
EBITDA	Earnings before interest, taxes, depreciation, and amortization
EITC	Earned income tax credit
ESA	European System of National and Regional Accounts
EU	European Union
FAD	Fiscal Affairs Department, IMF
FDI	Foreign direct investment
GDP	Gross domestic product
IB	Internal balance
IMMS	Survey on Outgoing Migratory Movements
INE	National Institute of Statistics
ISCED	International Standard Classification of Education
LFS	INE's Labor Force Survey
MTBF	Medium-term budget framework
NFC	Nonfinancial corporation
NPL	Nonperforming loan
OECD	Organisation for Economic Co-operation and Development
PEC IV	Fourth Stability and Growth Program for 2011–14
PER	In-court debt restructuring framework
PISA	Programme for International Student Assessment
PIT	Personal income tax
PPPs	Public-private partnerships
R&D	Research and Development
ROA	Return on assets
SCIE	Integrated Business Account System
SGP	Stability and Growth Pact
SIREVE	Out-of-court debt restructuring framework
SMEs	Small and medium enterprises
SOE	State-owned enterprise
VAT	Value-added tax

Foreword

In 2011, following years of large-scale external imbalance financed by debt, Portugal lost the confidence of its creditors and faced a sudden stop in capital inflows not only to the public sector, but also to banks and corporations. To restore credibility and economic growth, the country embarked on a difficult path of fiscal adjustment and structural reforms.

By many metrics, Portugal's 2011–14 macroeconomic stabilization program has been a success. Fiscal deficits declined, as revenues rose and spending was constrained, arresting the accumulation of public debt. Exports grew strongly, and the current account began to register surpluses for the first time in decades. Following a sharp contraction in 2011–12, output expanded steadily, and the headline unemployment rate has been decreasing since 2013. As a result, and also benefiting from a supportive monetary policy stance, market access was restored in 2013, with Portugal currently enjoying historically low borrowing costs.

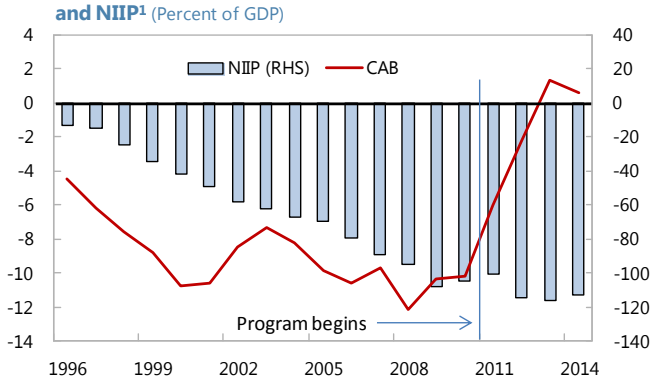
Despite this promising start, the agenda for policymakers is by no means finished. Portugal continues to have high public and private debt, which constrains activity and employment. Medium-term growth prospects are held back by underutilization of labor, low investment, and high nonperforming loans. This paper reviews Portugal's experience of postcrisis recovery and points to ways to reduce vulnerabilities, absorb labor slack, and generate sustainable growth.

Poul M. Thomsen
Director of the European Department

1 Preface[1]

Portugal is recovering from a sudden stop and the severe recession that followed it. While the external flow imbalance has been corrected and full access to financing restored, stock vulnerabilities remain large, labor slack high, and economic growth modest. This paper reviews Portugal's experience of postcrisis recovery and points to ways to reduce stock vulnerabilities, absorb labor slack, and generate sustainable growth.

Figure 1.1. Portugal: Current Account Balance and NIIP[1] (Percent of GDP)



Source: Haver.

[1]Net International Investment Position (NIIP).

The recent economic history of Portugal can be viewed through the prism of a Swan diagram, a simple macroeconomic model of a small open economy. An economy attains internal balance (IB) when it has full employment and stable prices. External balance (EB) requires equilibrium in the balance of payments.[2]

Since the mid-1990s, Portugal ran very large external deficits accompanied by low competitiveness and, since 2000, near-zero growth (a point below and to the right of the EB line). At the same time, internal balance was largely maintained, with low inflation and low unemployment (a point on the IB line).[3]

Once the crisis erupted in early 2011, the adjustment program helped to restore external balance. This, however, came at the cost of a large internal imbalance, which had been driven by a decline in domestic demand (the move to a point on the EB line). Internal imbalance arose because restoring the credibility of the country's policies required a gradual closing of the external imbalance and—at a minimum—stabilizing excessive leverage and

[1] Prepared by Dmitry Gershenson, Albert Jaeger, and Subir Lall.

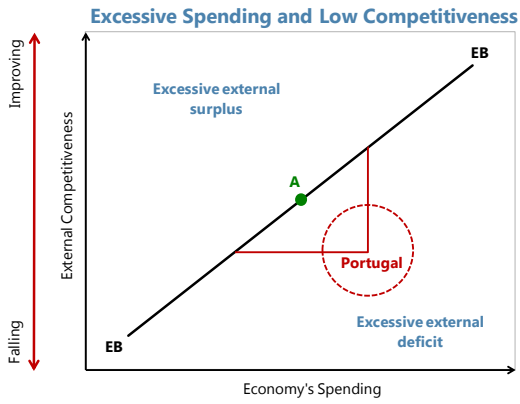
[2] For a discussion of the Swan diagram, see Reinert 2009.

[3] For a more detailed narrative of the buildup to the crisis, see IMF 2013.

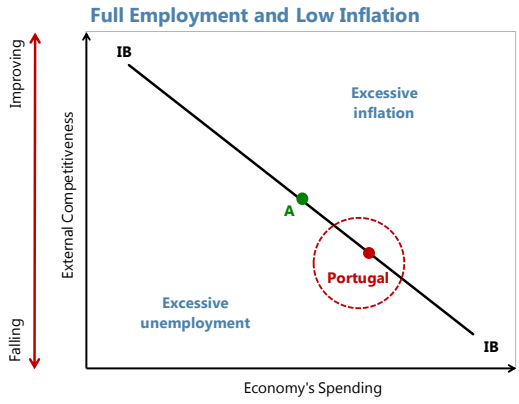
public debt levels. That in turn required bringing the unsustainable level of domestic demand in line with the country's national disposable income.

Figure 1.2. Portugal: Swan Diagrams

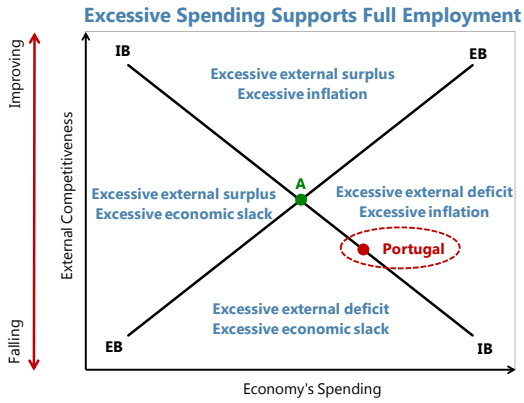
Genesis of the crisis: external imbalance



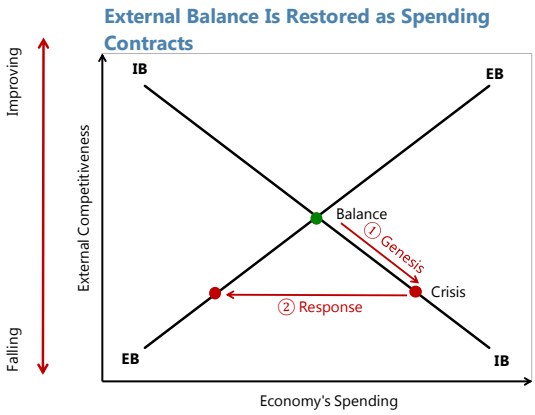
Genesis of the crisis: internal balance



Crisis: external balance becomes untenable



Response: emergence of excessive slack



Source: IMF staff.

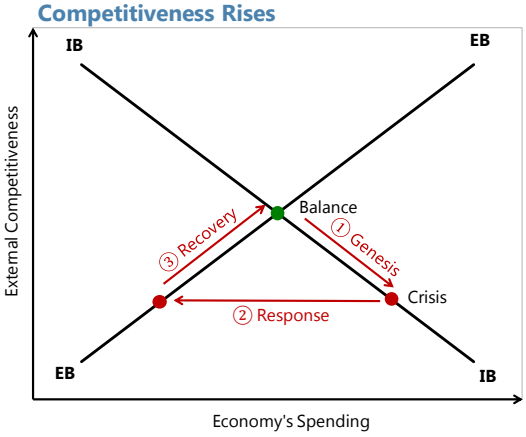
The emergence of a large internal imbalance could have been mitigated by increasing external competitiveness through structural reforms or a fiscal devaluation. This would have led to improved external price-cost competitiveness of existing firms or to the emergence of new exporting firms. Such an improvement was, however, difficult to achieve in the short run.[4]

[4] A fiscal devaluation in particular proved impossible to implement.

Looking forward, the key macroeconomic challenge for Portugal is to maintain external balance while returning to internal balance by raising competitiveness (and, correspondingly, potential growth) through structural reforms (a movement along the EB line). Conversely, internal balance can be achieved by a reduction in the potential growth without improvements in competitiveness (a shift of the IB line to the left). The former scenario would allow for a reduction in the large labor market slack, while the latter—clearly undesirable—scenario would condemn Portugal to years of low growth, high labor market slack, and high unemployment.

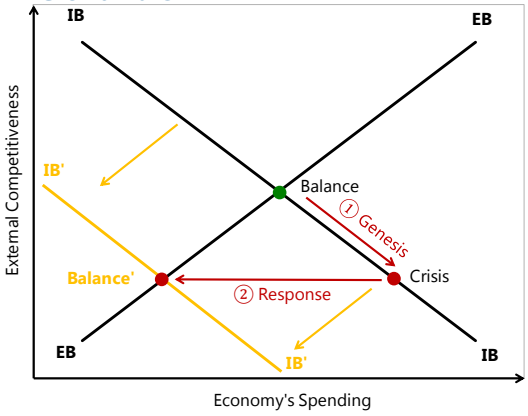
Figure 1.3. Portugal: Restoring Internal Balance

Internal Balance Is Restored as Competitiveness Rises



Source: IMF staff.

Internal Balance Is Restored as Potential Growth Falls



Source: IMF staff.

Meeting this macroeconomic challenge implies restoring internal balance, maintaining external balance, reducing public and corporate debt overhangs, and generating sustainable growth. The subsequent chapters address these issues.

Chapter 2 reviews the challenge of restoring internal balance, stressing the need to create *jobs for the lower skilled*. The brunt of employment losses during the recession fell on the lower skilled, and the lower skilled have seen few job gains during the recovery so far. Simulations based on a production function that allows for both skilled and lower-skilled labor and different types of capital suggest that given present growth projections and policies, it is unlikely that job creation will be sufficient to absorb existing labor slack over the medium term. To support job creation for the lower skilled, badly needed structural reforms in the public and financial sectors (see Chapter 7) should be complemented by a prudent minimum wage policy, measures that increase the limited pool of managerial skills, and a more inclusive and transparent social partner dialogue that takes into account the interests of labor market outsiders.

Chapter 3 looks at *external balance and competitiveness* through the lens of value-added content in exports. Portugal achieved impressive external adjustment in the past few years, but—absent continued competitiveness gains—the economic recovery may lead to reopening of external imbalances, as domestic consumption and investment rebound. The analysis suggests that Portugal continues to lag behind many of its peers in structural areas closely linked to higher value added in exports, with rigid labor markets, high (relative to income) energy prices, a low degree of domestic competition, and bias of foreign direct investment (FDI) toward the nontradables sectors.

Turning to the public debt overhang issue, Chapter 4 reviews the status of fiscal adjustment. Because weak expenditure controls played a key role in the buildup of fiscal imbalances prior to the crisis and because the adjustment under the program was more revenue-based than had been initially planned, the authorities should now focus on increasing public expenditure efficiency with particular emphasis on public wages and pensions. Expenditure rationalization will help create room for pro-growth fiscal measures, such as reduction in the tax debt bias. 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.

Chapter 5 discusses *corporate debt restructuring*. The level of corporate debt increased markedly in the precrisis years and remains high today, constraining investment and growth. Corporations and banks do not have incentives to speed up debt restructuring, due to weak corporate governance and banks' reliance on lending backed by assets for which there is no obvious valuation. The current benign environment affords an opportunity to implement a systemic approach to debt restructuring. It would require 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. This would pave the way for restoring the flow of private credit to viable firms to support economic growth and for improving the overall asset quality of the banking system.

The remaining two chapters focus on structural reforms needed to generate sustainable growth.

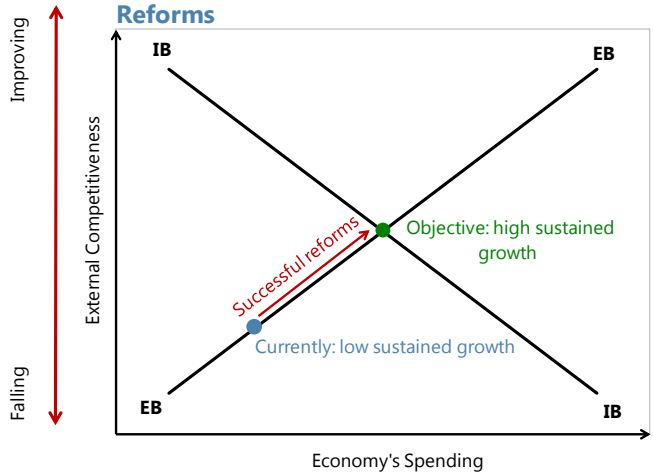
Chapter 6 focuses on the need for institutional change. With Portugal's working-age population and capital stock contracting, and productivity growth stifled by inefficient allocation of resources due to rent-seeking, institutional change becomes a key element of reform going forward. Such change should aim to empower the country's tradables sector, allowing it to compete successfully in the global economy.

And Chapter 7 uses a firm survey conducted by staff to take stock of the effectiveness of structural reforms under the program, and to identify the areas where additional reform

efforts are most urgent. On staff's count, specific structural reforms were initiated in 35 different reform areas, with 494 reform actions taken. Looking backward, firms perceived that many of the reforms had some positive effects, but few reforms were perceived as having had a significant impact so far on firms' competitiveness or growth prospects. Looking ahead, firms singled out the need for urgent additional reform efforts in the public sector (low efficiency of public administration and courts, payment of bills on time) and in the financial sector (insolvency and debt restructuring procedures and credit allocation by banks).

This paper provides a guide to key areas of reform and identifies benchmarks for measuring success based on outcomes. It falls on the authorities to identify specific needs in each sector of the economy and ensure that reforms induce the needed reallocation of resources from less productive to more productive activities. If successful, the reforms will improve the economy's competitiveness and allow Portugal to enjoy balanced growth for years to come.

Figure 1.4. Portugal's Path of Successful Reforms



Source: IMF staff.

*An earlier version of this collection of papers was issued as a Selected Issues paper (*IMF Country Report No. 15/127*) and served as background material for the 2015 Article IV Consultation for Portugal. The analysis and recommendations are based on the data available at the time of the completion of the 2015 Article IV Consultation. Nevertheless, some higher-frequency series have been updated for this publication.*

References

International Monetary Fund (IMF). 2013. "Portugal: 2012 Article IV Consultation." IMF Country Report 13/18. Washington.

Reinert, K., editor. 2009. *The Princeton Encyclopedia of the World Economy,* 1049–1052. Princeton University Press. Princeton.

2 Restoring Internal Balance: Creating Jobs for Lower-Skilled Workers[1]

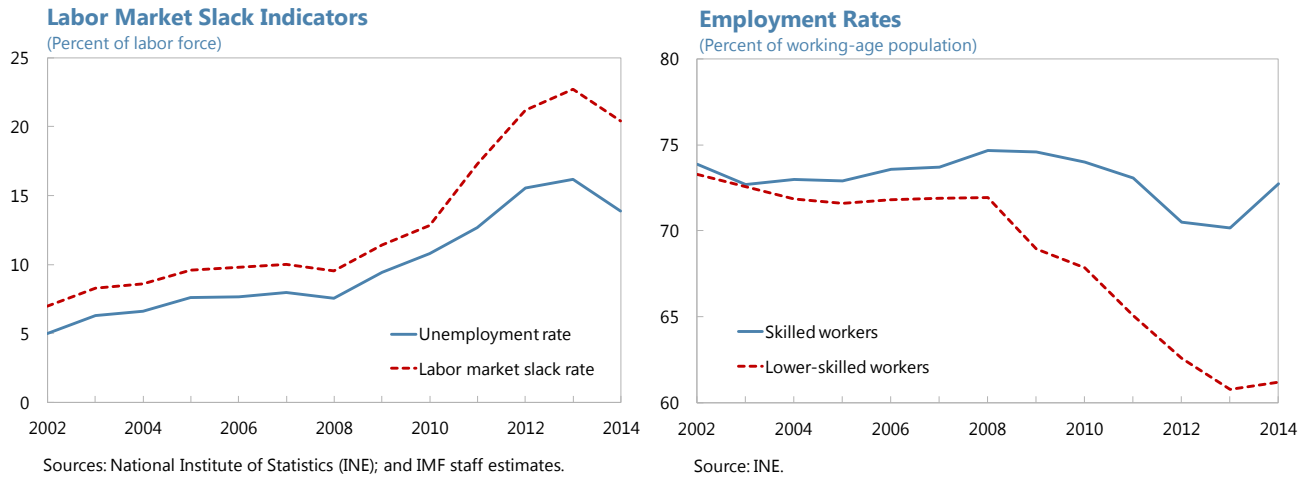
Broader measures of labor underutilization suggest that labor slack increased significantly more than indicated by the unemployment rate, while the brunt of labor shedding fell on the lower skilled. These adverse labor market trends were mainly a legacy of the pre-2011 buildup of macroeconomic flow and stock imbalances. Under present growth projections and policies, it is unlikely that job creation will be sufficient to absorb the slack over the medium term. To support job creation for the lower skilled, structural reforms should be complemented by a prudent minimum wage policy, measures that increase the limited pool of managerial skills, and a more inclusive and transparent social dialogue.

Background

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 (Figure 2.1, left chart). A broader measure of labor slack indicated that about 20 percent of available labor resources were unemployed, underemployed, or discouraged from looking actively for jobs. This slack estimate still does not take into account migrants who have left the country to work abroad. Lower-skilled workers were especially affected by low labor demand, an adverse labor market trend that had already started in 2008 (right text chart). Despite the recovery in output since 2013, the transition back to jobs for the lower skilled has made little progress so far.

[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.

Figure 2.1. Labor Market in Portugal, 2002–14



Sources: National Institute of Statistics (INE); and IMF staff estimates.

Source: INE.

Against this backdrop, the Portuguese labor market is likely to face both supply and demand issues over the medium term. There are two issues on the demand side: (1) will the overall pace of output growth be sufficient to absorb labor slack, and (2) 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? There are also two issues on the supply side: (1) will education and training programs promote relevant skills to avoid mismatches that could turn labor slack into persistent unemployment, and (2) will lower-skilled workers be sufficiently incentivized to remain attached to the labor market, given that creating jobs for them will take time?

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).

Measuring Labor Market Slack[2]

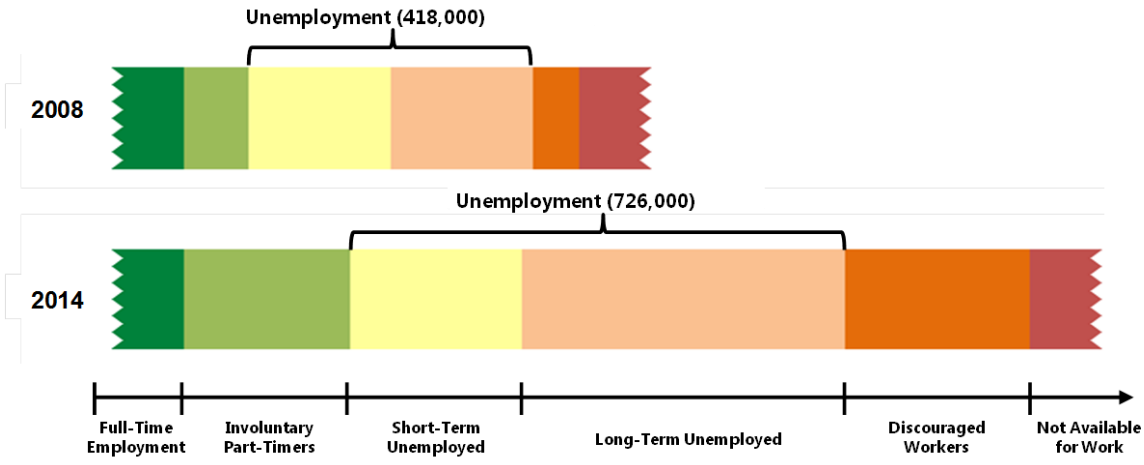
The dividing lines between the employed, unemployed, and inactive are necessarily fuzzy. Some of the employed may work involuntarily short hours, some of the unemployed may have little interest or ability to find a job, and some of the inactive may be quite willing to work if jobs would become available. An extensive empirical literature has studied the

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

transition probabilities among different labor market states, focusing in particular on whether some of those outside the conventionally-measured labor force are as likely to move into jobs as those conventionally labeled as unemployed (see, for example, Clark and Summers 1979, for the United States; Garrido and Toharia 2004, for Spain; and Schweitzer 2003, for the United Kingdom). Since the global financial crisis, measuring labor slack has attracted additional attention, especially among central banks trying to gauge underlying inflation pressures.

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 underemployed, that is, workers with part-time jobs who 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 part-timers has almost tripled and the number of discouraged workers has quadrupled since 2008 (text chart).[3]

Figure 2.2. Attachment to Labor Market in Portugal, 2008 vs. 2014



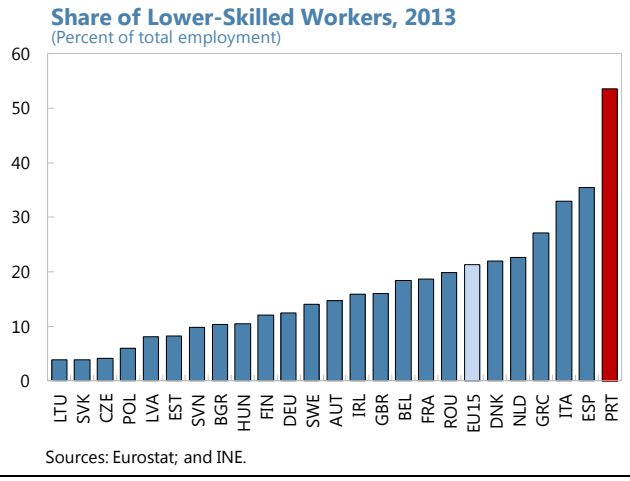
Sources: INE; and IMF staff.

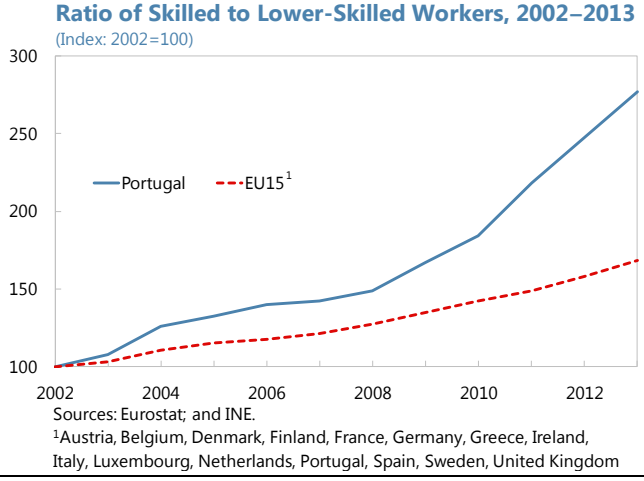
A feature of Portugal's labor market is the very high (albeit declining) share of lower-skilled labor in employment, by far the highest in the European Union (EU; left text chart). This mainly reflects a stock legacy of heavy underinvestment in schooling and training before the April 1974 revolution. Over the past four decades, a massive educational transition took place, with average years of schooling increasing significantly (Alves, Centeno, and Novo

[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 National Institute of Statistics (INE).

2010). As a result, the skill composition of Portugal's employment has not only improved a great deal but is improving much faster than in the average of EU countries (right text chart).

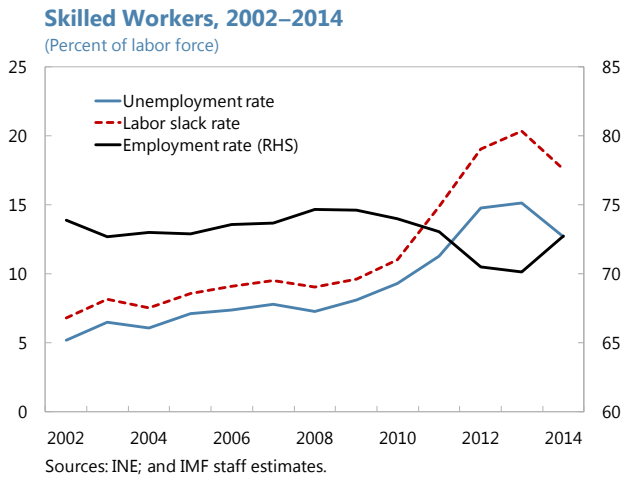
Figure 2.3. Skills Indicators

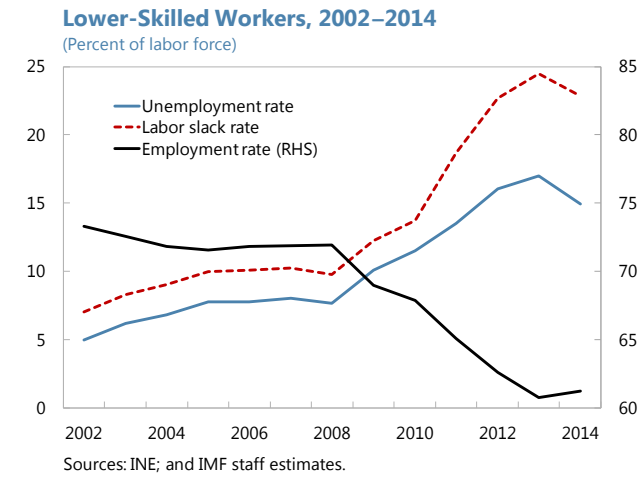




A broader measure of labor slack has diverged from unemployment since 2008, especially for lower-skilled workers. A simple approach is to add discouraged workers to the officially unemployed workers and to the labor force, and also adjust for involuntary part-time work (by adding 0.5 times involuntary part-time workers to the number of unemployed and discouraged workers) (Table 2.1). For both skilled and lower-skilled workers, this broader measure of labor slack was always somewhat higher than the conventional unemployment measure during the precrisis 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.

Figure 2.4. Slack Indicators





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; 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 did. 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 2.1).

Box 2.1. Labor Slack and Migration

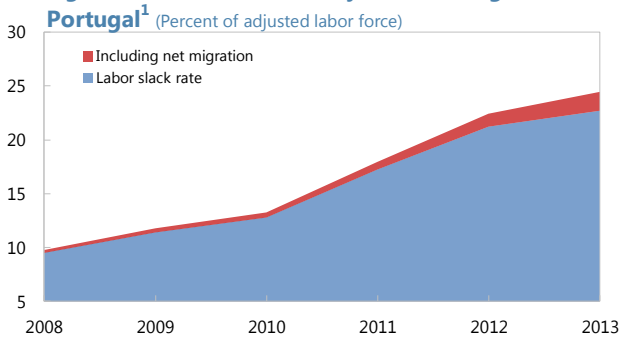
In a postcrisis economy, a broader measure of labor slack should arguably take account of outward migration of workers. Migrant workers abroad, and particularly those intending to migrate out only temporarily, form a pool of workers that is connected to the domestic labor market by a two-way safety valve. 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 Survey on Outgoing Migratory Movements (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 assessment of annual migration flows that at least allows for estimating plausible ranges for an extended slack measure.

According to international convention, migrants can be classified as temporary (or short term) when they leave the country with the intention of residing in another country for a continuous period of more than three 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 (that is, the difference between the outflow of permanent migrants and the inflow of permanent immigrants who are Portuguese citizens) during 2008–13, the slack rate in 2013 would have been 1.7 percentage points higher than a slack rate excluding permanent migration flows.

Figure 2.1.1. Labor Slack Adjusted for Migration in Portugal[1] (Percent of adjusted labor force)



Sources: INE; and IMF staff calculations.

[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.

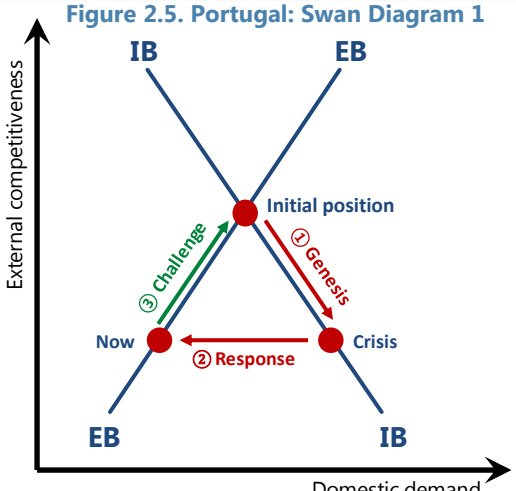
Macroeconomic Context: The Drivers of Labor Slack[4]

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 is to restore internal balance by creating jobs, without re-opening the external imbalance.

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 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.

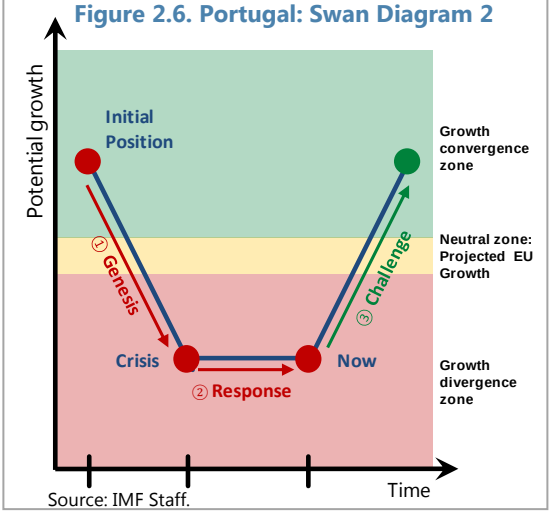
From prudent to excessive leverage and public debt levels. With persistent external imbalances and potential growth slumping, leverage of firms and public debt rose to excessive levels. The recognition that this cumulative process was unsustainable triggered the crisis in early 2011. During the program,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

Figure 2.5. Portugal: Swan Diagram 1



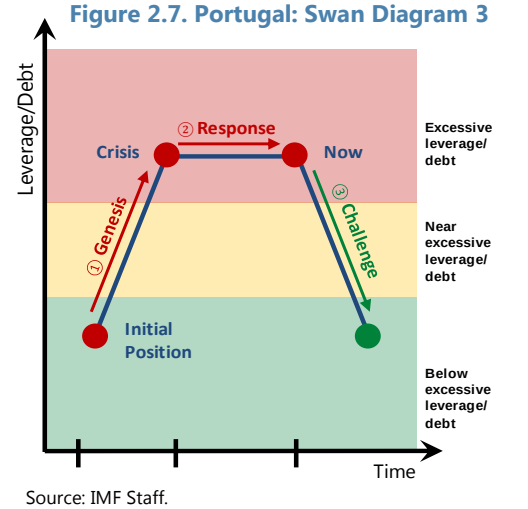
Source: IMF Staff.

Figure 2.6. Portugal: Swan Diagram 2



Source: IMF Staff.

Figure 2.7. Portugal: Swan Diagram 3



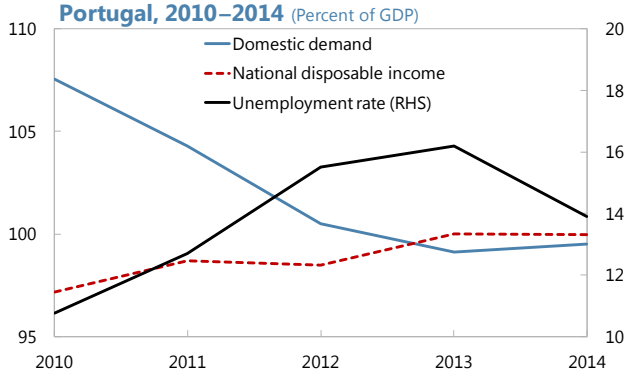
Source: IMF Staff.

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

challenges are to reduce indebtedness back to less excessive levels through balanced growth.

In this reading of macroeconomic events, rising labor market slack was a legacy of precrisis imbalances. Restoring the credibility of the country's policies required gradually closing the external imbalance and—at a minimum—stabilizing 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.

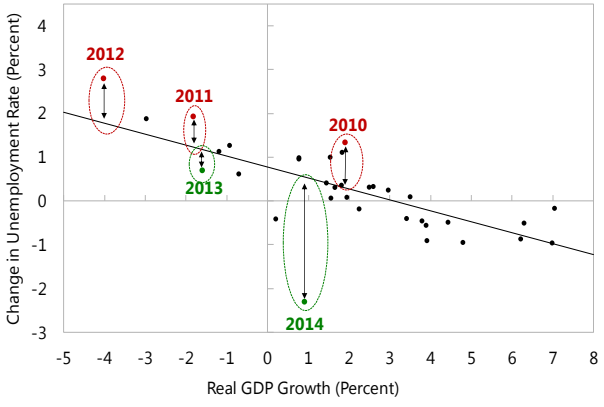
Figure 2.8. Domestic Demand, National Disposable Income, and Unemployment Rate in Portugal, 2010–2014 (Percent of GDP)



Source: INE.

But unemployment outcomes during the initial phase of the program also were surprisingly negative. The unemployment rate during 2010–12 consistently increased by more than was 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 under way in 2013, the

Figure 2.9. Okun Relationship in Portugal, 1981–2014



Sources: INE; and IMF staff estimates.

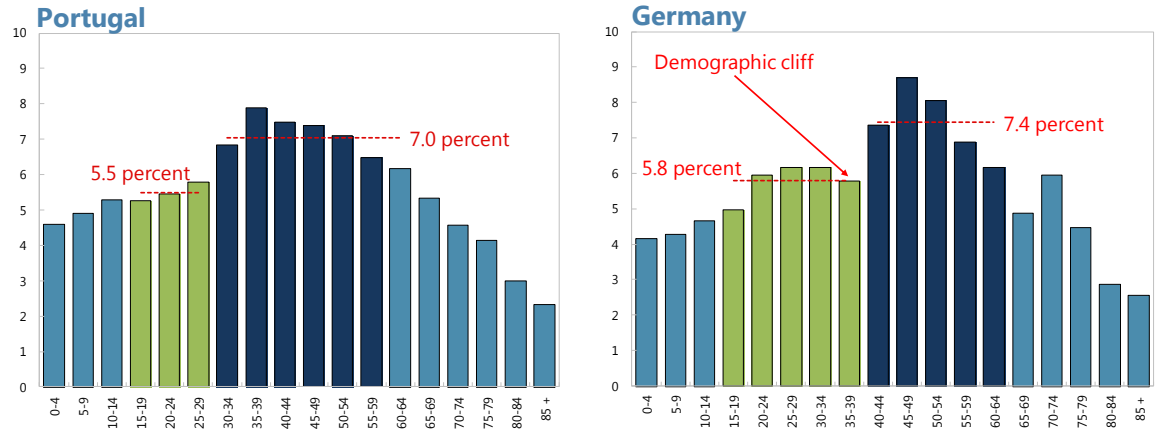
deviations from Okun's law were in the opposite direction, especially in 2014.[5]

Labor Absorption Scenarios: 2015–20

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 2.2).

Labor supply under baseline. The National Institute of Statistics (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 added slack generated by discouraged workers and involuntary part-time workers will revert to precrisis—that is, 2008—levels.

Figure 2.10. Age Pyramids, 2013
(Percent of total population)



Source: Eurostat.

[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, who 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 during 2013–14 based on the 2011 Population Census, this likely reduced the unemployment reported rate, but also brought it closer to the actual rate.

Sensitivity of migration projections. 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, in contrast to Portugal, in Germany the largest worker cohorts are transitioning to or approaching retirement over the next 5–10 years, which could generate a powerful migration pull for countries like Portugal.

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 2.2) will continue on its historical trend, that is, 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 precrisis levels, with the employment rate for lower-skilled workers remaining especially depressed relative to precrisis levels (panel chart).

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 precrisis 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 2.2. 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. Because we do not have direct evidence from Portuguese data on this parameter, we use the same value as Krusell et al. (2000): $\rho = -0.67$.

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:

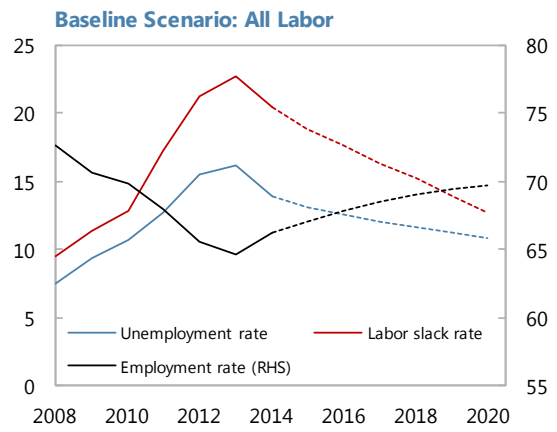
- $$g_{\pi_t} \approx (1-\sigma)\left(g_{L_{Ut}} - g_{L_{St}}\right) + (\sigma-\rho)\lambda\left(\frac{K_{Et}}{L_{St}\varphi_{St}}\right)^{\rho}\left(g_{K_{Et}} - g_{L_{St}} - g_{\varphi_{St}}\right) + \sigma g_{\varphi_{St}}.$$

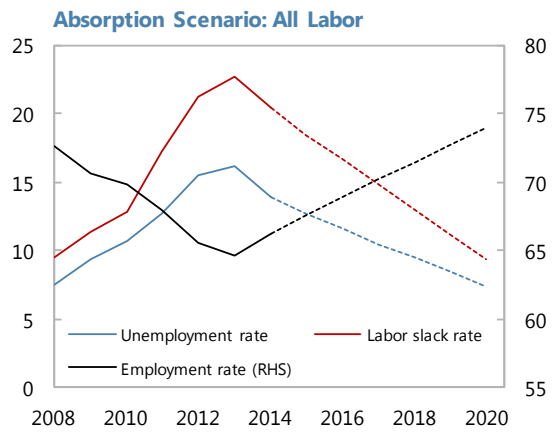
The first term provides the effect on the skill premium due to the relative growth rate of skilled and unskilled labor. Given that skilled labor has grown (and is expected to grow) clearly faster than unskilled labor and ($\sigma < 1$), this effect on the skill premium is unambiguously negative.

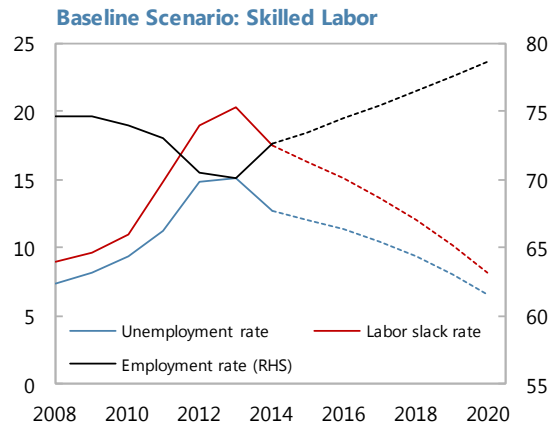
The second term captures the effect of capital skill complementarity on the skill premium. If $\sigma > \rho$, skilled labor is more complementary with equipment than is unskilled labor. In this case, faster growth in capital equipment than in skilled labor (adjusted for efficiency) would increase the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

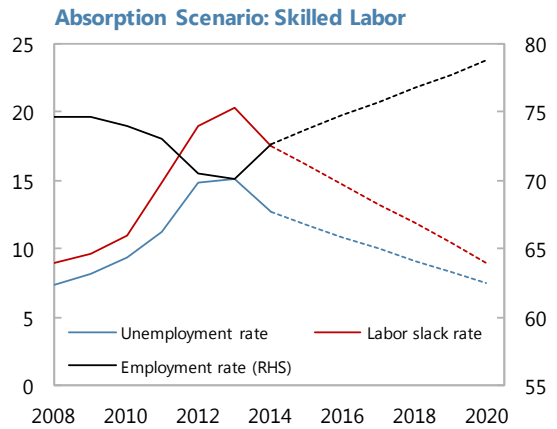
The third term captures the effect of skill-biased technological progress on the skill premium, and, given that σ is positive, this term will increase the skill premium.

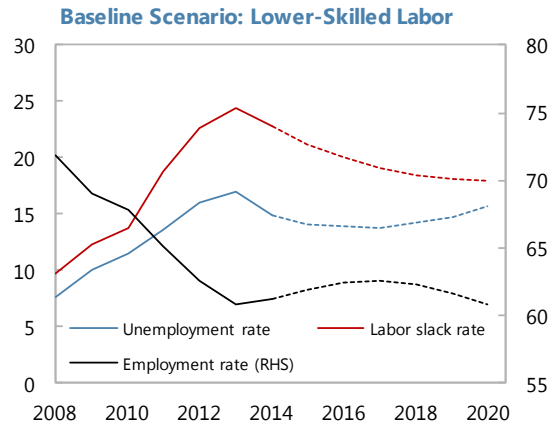
Figure 2.11. Labor Absorption Scenarios, 2015–20

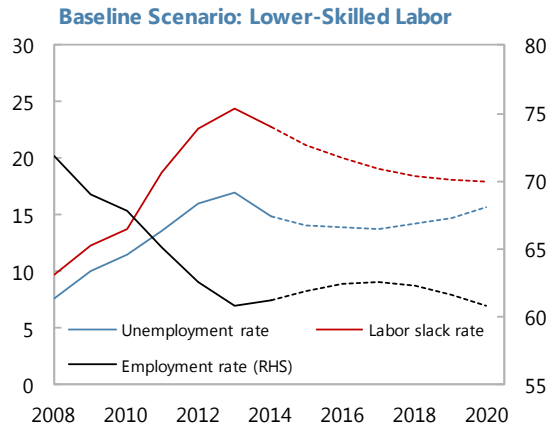








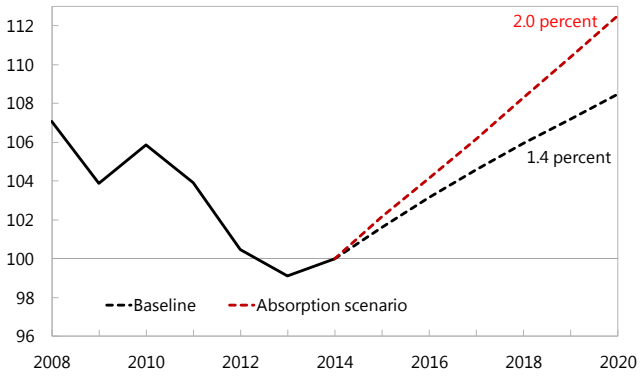




Sources: INE; and IMF staff estimates.

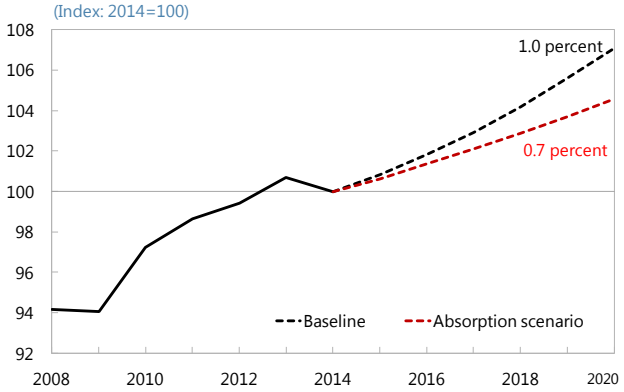
Output and productivity growth under absorption scenario. The implied path for output under the absorption scenario suggests that absorbing large amounts of labor slack may not require output growth rates that are substantially higher than under the baseline. This is so because absorbing lower-skilled labor does not require substantially higher growth than absorbing a similar order of magnitude of skilled labor (Figure 2.12). 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 (Figure 2.13).

Figure 2.12. Real GDP in Portugal
(Index 2014=100)



Sources: INE; and IMF staff estimates.

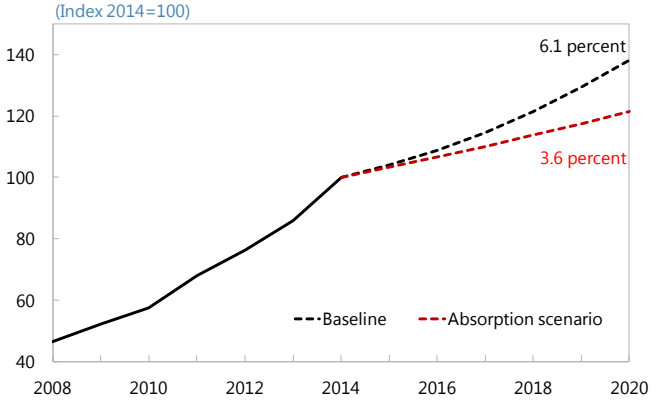
Figure 2.13. Labor Productivity in Portugal
(Index: 2014=100)



Sources: INE; and IMF staff estimates.

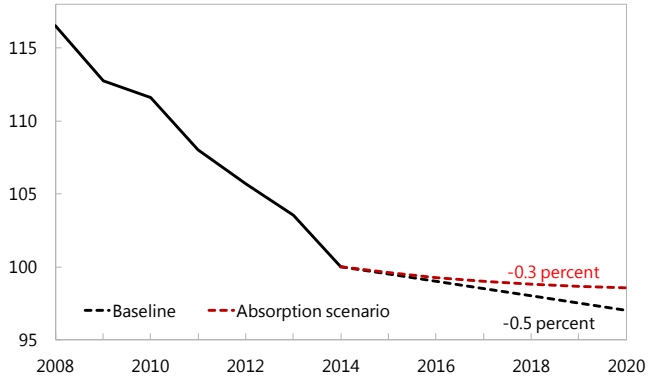
Skill mix and skill premium under absorption scenario. The relative skill mix would continue its upward trend under both scenarios, albeit in the absorption scenario at a slower pace (Figure 2.14). The skill premium also continues to decline in both scenarios, albeit at a slower pace in the absorption scenario compared with the baseline (Figure 2.15).

Figure 2.14. Skill Mix in Portugal
(Index 2014=100)



Sources: INE; and IMF staff estimates.

Figure 2.15. Skill Premium in Portugal
(Index 2014=100)

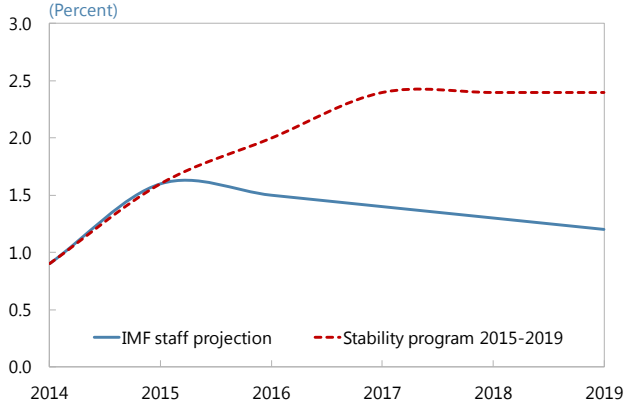


Sources: INE; and IMF staff estimates.

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

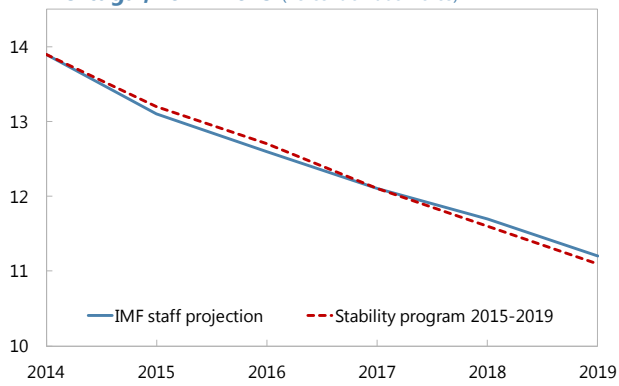
at 2½ percent, rather than 1¼ percent as in staff's baseline (Figure 2.16). These higher growth rates can be motivated by the assumption that large, delayed effects from structural reforms will boost potential growth over the medium term, or by the assumption that the recent declines in oil prices, financing 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 (Figure 2.17). 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.

Figure 2.16. Projected Real GDP Growth in Portugal
(Percent)



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

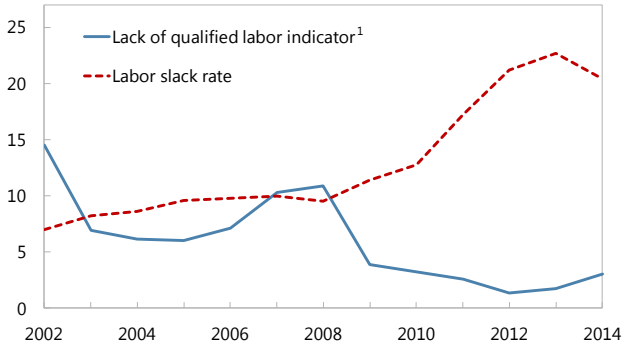
Figure 2.17. Projected Unemployment Rate in Portugal, 2014–2019 (Percent of labor force)



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

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 (Figure 2.18). 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.

Figure 2.18. Skill Mismatch in Portugal
(Percent)



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

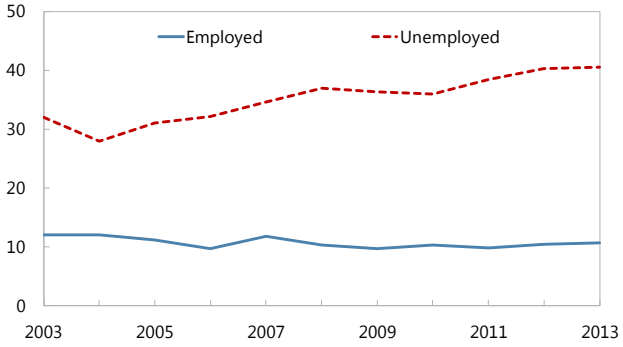
Policy Considerations

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

Theory: Minimum wages set a floor for the employer's wage costs for lower-skilled workers, and are therefore critical for facilitating or hindering the absorption of 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 poverty-reducing alternatives to minimum wages?

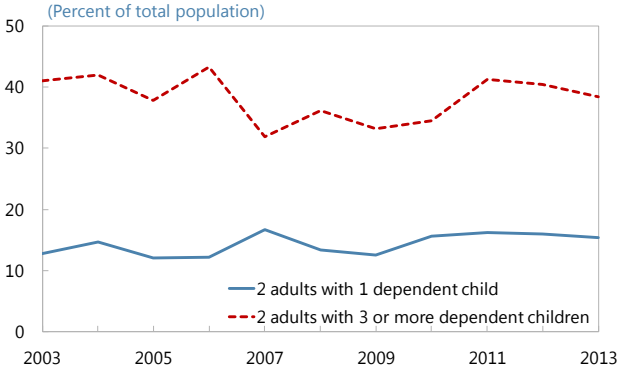
Empirics: On the first question, a large empirical literature has accumulated on the relationship between minimum wages and poverty, particularly for the United States. The results tend to be sensitive to subtle variations in estimation techniques, but the broad consensus is that it is difficult to establish 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. In contrast, in the U.S. case, different states can legislate different minimum wage levels, allowing empirical research to more convincingly disentangle 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 past few years if persons are unemployed (Figure 2.19). 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).

Figure 2.19. Portugal: At Risk of Poverty Rate (After Social Transfers) by Employment Status
(Percent of total population)



Source: INE.

Figure 2.20. Portugal: At Risk of Poverty Rate (After Social Transfers) by Household
(Percent of total population)



Source: INE.

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 on, among other things, 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 compared with minimum wage in two respects: (1) 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, and (2) EITCs can be targeted to low earners who 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

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 coworkers 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 job seekers 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; that is, the productivity of a lower-skilled worker may be higher when paired with effective managers.

Empirics: Managerial skills vary widely across countries and firms (Box 2.3). As regards the case of Portugal, (1) the overall managerial skill scores are relatively low in comparison with other countries, (2) the scores for human resource management are particularly low, and (3) 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, 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 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 because 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).

Policies: The cross-country evidence suggests three routes toward improving managerial skills in firms:

- Superior managerial skills associated with multinational firms would suggest that attracting more FDI to export sectors should be a policy priority.

- Increased competition in product markets seems to be a powerful approach to reduce the number of badly managed firms. And

[6] The firms surveyed in the Bloom and others 2012 cross-country database have more than 50 employees, and thus the database does not cover micro or smaller small and medium enterprises that dominate Portugal's firm distribution.

- 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 private consultants instead could provide a more efficient route to improving managerial skills.

Box 2.3. 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 payoffs.

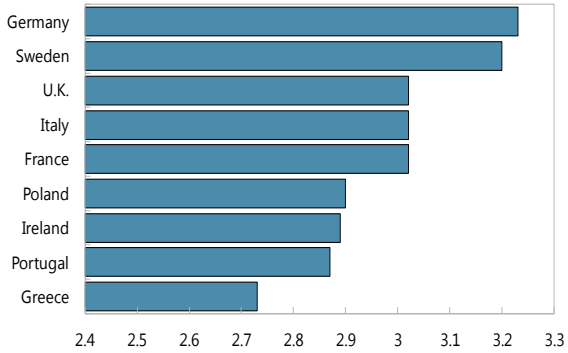
Bloom et al. (2012) put together a cross-country data set that also includes managerial skill scores for 193 Portuguese firms with more than 50 employees. These are relatively large firms by Portuguese standards, and managerial skill deficiencies in smaller firms, which dominate the Portuguese firm distribution, 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 (Figure 2.3.1).

Second, among the three managerial skill areas scored—monitoring, targets, human resource management—Portuguese firms are particularly weak on human resource management skills (Figure 2.3.2).

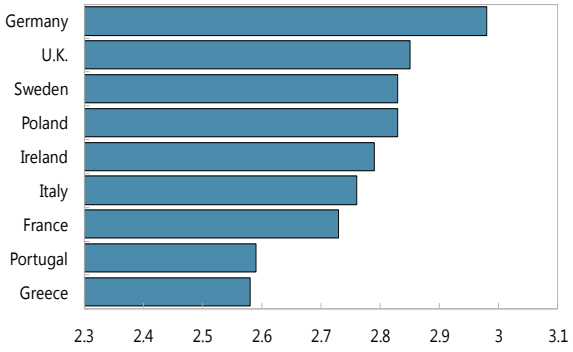
And third, multinational firms active in Portugal receive much higher managerial skill scores than domestic firms.

Figure 2.3.1. Managerial Skills Scores



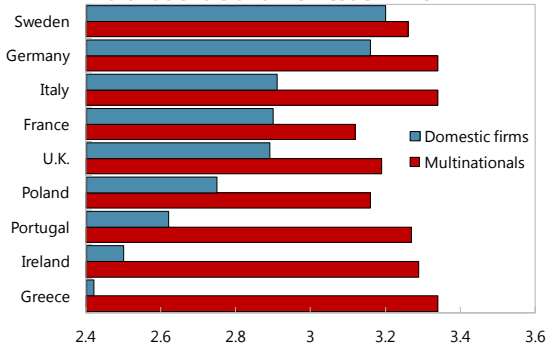
Source: World Management Survey.

Figure 2.3.2. Human Resources Management



Source: World Management Survey.

Figure 2.3.3. Management Skills Scores of Multinationals and Domestic Firms



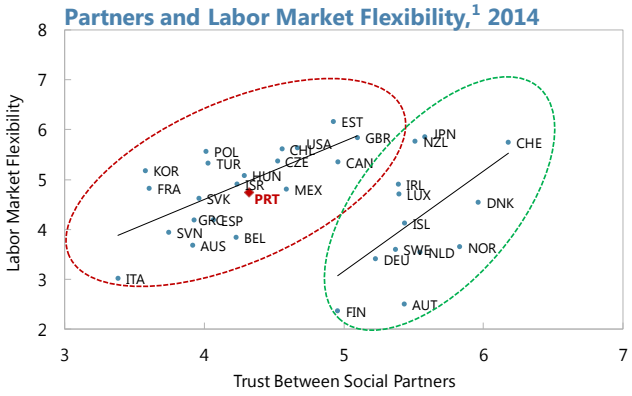
Source: World Management Survey.

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

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

Theory: Higher levels of trust between representatives of workers and firms are strongly correlated with better labor market outcomes (see, for example, Blanchard, Jaumotte, and Loungani 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, Algan, and Cahuc (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 for 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.

Figure 2.21. OECD Countries: Trust Between Social Partners and Labor Market Flexibility,[1] 2014

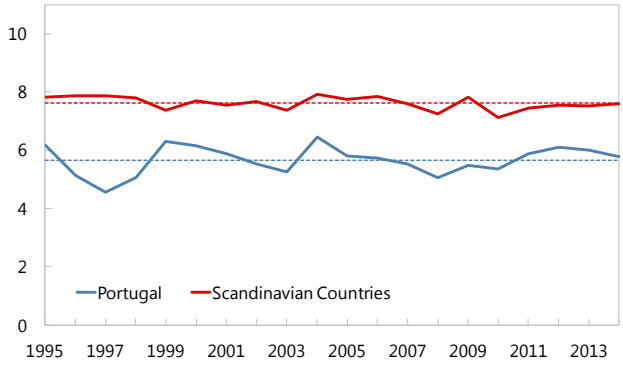


Source: World Economic Forum.

[1]A higher value corresponds to a more flexible labor market.

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 past 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

Figure 2.22. Social Trust
(Index from 0 to 10)



Source: 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 tripartite agreement covering part of the program's structural reform agenda.

increase social trust among social partners in a quick and surefooted manner.

Policies: Nevertheless, as a small open economy with high political cohesion, and given the potentially high payoffs 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 (1) 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 (2) publishing more information about actual membership and funding of the present social partner associations.

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 materialized only after Germany had faced a long stretch of high unemployment, a broad consensus had formed that piecemeal policy solutions were inadequate, and a painstaking search for specific policy solutions had taken place.

Table 2.1. 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	7
2003	5,433.8	340.4	66.1	81.8	6	8
2004	5,421.4	359.1	73.0	78.0	7	9
2005	5,461.4	414.1	85.4	74.2	8	10
2006	5,499.6	420.6	85.8	83.9	8	10
2007	5,533.1	440.6	93.9	73.6	8	10
2008	5,534.6	418.0	95.2	68.2	8	10
2009	5,486.1	517.4	93.3	70.5	9	11
2010	5,489.7	591.2	96.8	72.5	11	13
2011	5,428.3	688.2	214.3	170.3	13	17
2012	5,382.6	835.7	251.7	229.0	16	21
2013	5,284.6	855.2	258.6	277.4	16	23
2014	5,225.6	726.0	245.2	273.3	14	20

Sources: INE; and IMF staff calculations.

Appendix I. Data

Data Sources

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

Appendix Table 2.1.1. Data Sources

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 (National Accounts database)
Permanent emigration	INE, Labor Force Survey – Emigration Survey
Permanent immigration	INE, Labor Force Survey – Emigration Survey
Managerial skills scores	World Management Survey

Data Construction

- **Lower-skilled labor** comprises all workers with less than primary, primary, and lower secondary education levels (International Standard Classification of Education [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 jobs, 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.

References

Aghion, Philippe, Yann Algan, and Pierre Cahuc. 2008. "Can Policy Interact with Culture? Minimum Wage and the Quality of Labor Relations." NBER Working Paper 14327. National Bureau of Economic Research, Cambridge, MA.

Alves, Nuno, Mário Centeno, and Álvaro A. Novo. 2010. "Investment in Education in Portugal: Returns and Heterogeneity." *Economic Bulletin and Financial Stability Report Articles*. Banco de Portugal. Lisbon.

Bernard, Andrew, Bradford Jensen, Stephen Redding, and Peter Schott. 2007. "Firms in International Trade." *Journal of Economic Perspectives*. 21 (3): 105–30.

Beyer, Robert, and Frank Smets. 2014. "Has Mobility Increased? Reassessing Regional Labor Market Adjustments in Europe and the US." Presented at the 60th panel meeting of *Economic Policy*. Rome.

Blanchard, Olivier, Florence Jaumotte, and Prakash Loungani. 2013. "Labor Market Policies and IMF Advice in Advanced Economies during the Great Recession." IMF Staff Discussion Note 13/02, International Monetary Fund, Washington.

Bloom, Nicholas, and John Van Reenen. 2010. "Why Do Management Practices Differ Across Firms and Countries?" *Journal of Economic Perspectives* 24 (1): 203–24.

Bloom, Nicholas, Christos Genakos, Rafaella Sandun, and John Van Reenen. 2012. "Management Practices across Firms and Countries." *Academy of Management Perspectives* 1: 12–33.

Burkhauser, Richard. 2014. "Another Look at the Economics of Minimum Wage Legislation." *Australian Economic Review* 47 (3): 409–15.

Clark, Kim B., and Lawrence H. Summers. 1979. "Labor Market Dynamics and Unemployment: A Reconsideration." *Brookings Papers on Economic Activity* 1: 13–72.

Garrido, Luis, and Luis Toharia. 2004. "What Does It Take to Be (Counted as) Unemployment: The Case of Spain." *Labour Economics* 11 (4): 507–523.

Goodhart, Charles, and James Lee. 2013. "Adjustment Mechanisms in a Currency Area." *Open Economies Review* 24 (4): 627–56.

Hertweck, Matthias S., and Oliver Sigrist. 2013. "The Aggregate Effect of the Hartz Reforms in Germany." SOEP papers on Multidisciplinary Panel Data Research No. 532. German Socio-Economic Panel Study (SOEP). Berlin, Germany.

Hotz, Joseph, and John Karl Scholz. 2003. "The Earned Income Tax Credit." In *Means-Tested Transfer Programs in the United States*, edited by Robert Moffit, pp. 141–97. Chicago: University of Chicago Press.

International Monetary Fund. 2010. "Unemployment Dynamics in Recessions and Recoveries." *World Economic Outlook*, Chapter 3. Washington.

Jones, Benjamin. 2014. "The Human Capital Stock: A Generalized Approach." *American Economic Review,* 104(11): 3752–77.

Krusell, Per, Lee E. Ohanian, José-Víctor Ríos-Rull, and Giovanni L. Violante. 2000. "Capital-Skill Complementarity and Inequality: A Macroeconomic Analysis." *Econometrica* 68 (5): 1029–1053.

Martins, Pedro. 2015. "Can EU-Funded Management and Professional Training Programs Increase Firm Performance? Regression-Discontinuity Evidence." Unpublished. Queen Mary University of London.

Organisation for Economic Co-operation and Development (OECD). 2015. "OECD Skills

Strategy Diagnostic Report: Portugal." OECD Publishing. Paris.

Portuguese Public Finance Council. 2015. "Public Finance: Position and Constraints." Report 3/2015. Lisbon.

Schweitzer, Mark E. 2003. "Ready, Willing and Able? Measuring Labour Availability in the UK." Bank of England Working Paper 186. London.

Snower, Dennis. 1994. "The Low-Skill, Bad-Job Trap." IMF Working Paper 94/83, International Monetary Fund, Washington.

Stigler, George. 1946. "The Economics of Minimum Wage Legislation." *American Economic Review* 36: 358–65.

3 Maintaining External Balance: Structural Reforms to Boost Competitiveness[1]

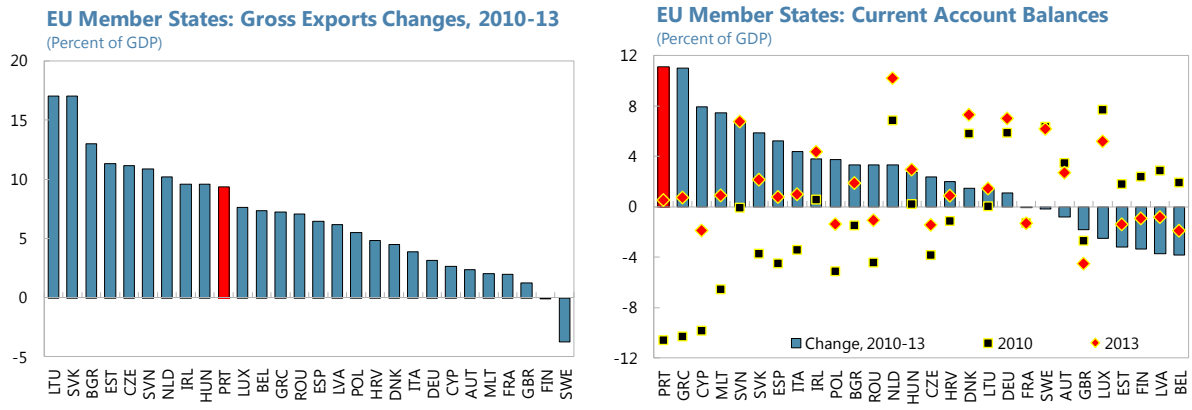
To absorb the still-large internal slack, and to reduce the very high stock of external imbalances at the same time, competitiveness gains achieved in the past few years need to be maintained. An investigation of structural factors with strong empirical linkages to external competitiveness suggests, however, that the sustainability of Portugal's external gains cannot be taken for granted. The country needs to continue to push forward with structural reforms in a few key areas that were identified during the 2011–14 IMF program, such as further increasing labor market flexibility and enhancing competition.

Portugal's External Adjustment, 2010–13

Portugal achieved impressive external adjustment in the past few years (Figure 3.1). 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 10.1 percent of GDP in 2010, largest among all the EU member states, to a 1.4 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.

[1] Prepared by Li Zeng and Dmitry Gershenson.

Figure 3.1. EU Member States: Changes in Gross Exports and Current Account Balances



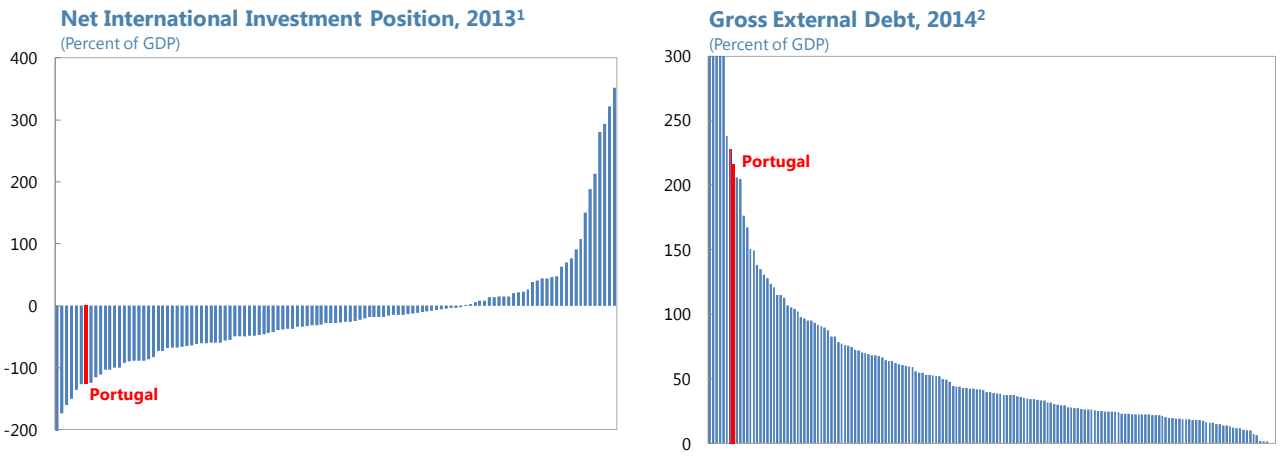
Source: IMF, World Economic Outlook database.

The improved external performance needs to be maintained on a sustainable basis, which requires continued strengthening of external competitiveness.[2] Portugal's stock external position is still among the weakest in the world, as indicated by both its large negative International Investments Position (IIP) and its high level of gross external debt (Figure 3.2). On the other hand, labor market slack, a broader measure of labor underutilization, is still about 20 percent, compared with less than 10 percent prior to the crisis.[3] 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 a resurgence of external flow imbalances.

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

[3] For further discussion of labor market slack in Portugal, see Box 1 in IMF 2015.

Figure 3.2. External Positions



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

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

[2]The chart shows gross external debt of 168 countries with available data in the World Economic Outlook database. 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.

Why Is There Concern about Sustainability?

Concerns about the sustainability of Portugal's improved external performance arise, in part, from the asymmetric adjustment in exports and imports. As shown in Figure 3.1, the 9½ percent of GDP increase in Portugal's gross exports during 2010–13 ranked only 10th among 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 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.

Adding to the concern are the uncertain competitiveness gains associated with the observed increase in gross exports. The illustrative example in Table 3.1 shows that, with the same observed adjustment in gross exports and imports, different changes in imports of intermediate inputs could give rise to very different real contributions of exports and imports to the overall adjustment.

Table 3.1. Illustrative Example: Why Gross Exports Could Be Misleading

(Percent 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

Source: IMF staff calculations.

To isolate the real impact of competitiveness gains on external adjustments, we turn our attention to domestic value-added (DVA) exports. DVA exports exclude imported intermediate inputs from gross exports, thereby reflecting the true external demand for domestic products.[4] The differentiation between DVA and gross exports is particularly important for the countries where processing trade, such as oil processing and export, plays a big role.[5]

Structural Factors and DVA Exports

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.[6] The latest DVA exports data are for 2011. Figure 3.3 shows that, among the EU member states, DVA exports are strongly correlated with a small set of structural indicators:

- *Degree of employment protection:* The restrictiveness of employment protection reflects, to a certain extent, the rigidity of a country's labor market. The top-left panel of Figure 3.3 suggests that countries with lower degrees of employment protection tend to have higher DVA exports.

- *Gap in unit wage costs between services and manufacturing:* Since wages are largely driven by productivity, a bigger gap would indicate that the country's manufacturing sector is more developed compared with its service sector. Following such an

[4] 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.

[5] 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.

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

interpretation, the top-right panel of Figure 3.3 seems to suggest that a country with a more developed manufacturing sector (vis-à-vis services) tends to have higher DVA exports.

- *Intensity of local competition:* More intense local competition could help boost external competitiveness by forcing domestic producers to raise productivity and cut costs. The bottom-left panel of Figure 3.3 is an indication of such a relationship.

- *Degree of integration with the global value chains:*[7] This indicator can be interpreted as a composite index that captures the "gravity factors" of international trade, such as distance to market (for instance, countries located closer to major exporters such as Germany tend to be more integrated into the global value chains). It is clear from the bottom-right panel of Figure 3.3 that countries better integrated into the global value chains tend have higher DVA exports.

The linkages noted above are robust:

- The structural indicators described above capture different forces that affect DVA exports. The results of a panel regression results (Table 3.2) show that not only do these structural indicators have strong bilateral relationships with DVA exports, all their coefficients remain highly significant when included simultaneously in a regression.

- The strength of the linkages does not seem particularly sensitive to the sample periods. In Table 3.3, the regressions in columns (2) and (4) test the relationships between the structural indicators and DVA exports using precrisis 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, growth in major trade partners, or time dummies—to the model (Table 3.4).[8]

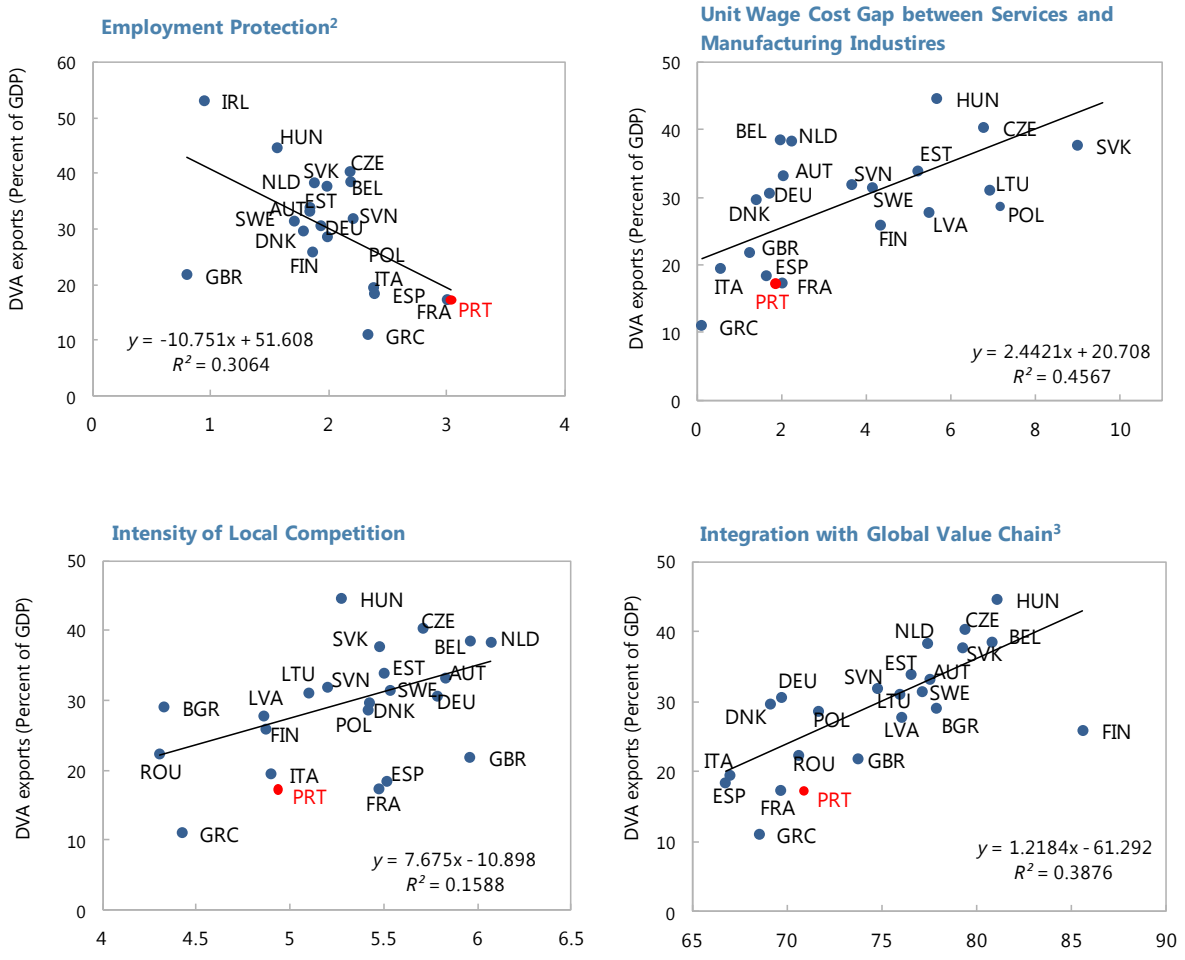
These structural factors also have similarly strong relationships with gross exports. Reported in Table 3.5 are regressions for gross exports, based on the same samples as in Table 3.2. The results are similar, suggesting that countries tend to export more if they have (1) a lower degree of employment protection, (2) a larger gap in unit wage costs between services and

[7] 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).

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

manufacturing, (3) more intense local competition, and (4) better integration into the global value chain.

Figure 3.3. EU Member States: Domestic Value-Added Exports and Structural Indicators, 2011[1]



Sources: European Commission, LAF database; World Economic Forum, Global Competitiveness Index database; World Input-Output Database; IMF, World Economic Outlook database; and IMF staff estimations.

[1]Cyprus, Luxembourg, 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.

[2]Simple average of two indicators from the LAF database: (1) regular Employment Protection Legislation (EPL) (overall strictness of protection against dismissals), and (2) temporary EPL (overall strictness of regulation). Several countries such as Bulgaria are not shown due to missing information.

[3]Supply-chain-related exports as percent share of gross exports.

Table 3.2. DVA Exports and Structural Indicators[1]

Dependent variable: DVA exports (Percent 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

Source: IMF staff statements.
Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
[1]Cyprus, Malta, and Luxembourg 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 have no information on employment protection.

Table 3.3. Robustness Check: Subsample Periods[1]

Dependent variable: DVA exports (Percent 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

Source: IMF staff statements.
Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
[1]Cyprus, Malta, and Luxembourg 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 have no information on employment protection.

Table 3.4. Robustness Check: Other Factors[1]

Dependent variable: DVA exports (Percent 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[2]-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

Source: IMF staff statements.

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 3.2, column (5).

[2]Purchasing power parity (PPP).

Table 3.5. Gross Exports and Structural Indicators[1]

Dependent variable: Gross exports (Percent 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

Source: IMF staff statements.

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 3.2.

Where Does Portugal Stand?

The increase in Portugal's DVA exports during 2010–13 and competitiveness gains achieved in this period are likely to be much smaller than indicated by the growth in gross exports. The empirical relationship established in the previous section suggests an increase of 2 to 3 percent of GDP in Portugal's DVA exports between 2010 and 2013.[9] 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 3.1, this would also imply that import compression had played a bigger role in the current account adjustments than indicated by the small decline in gross imports.

The latest information on structural factors identified in the previous section also suggests that the sustainability of Portugal's external adjustment cannot be taken for granted (Figure 3.4). In 2014, Portugal ranked 21st among the EU countries in terms of labor market efficiency.[10] Similarly, the intensity of local competition in Portugal ranked only 22nd among the EU countries. The bottom panels of Figure 3.4 indicate that the key bottlenecks constraining the development of manufacturing industries, or of tradables sectors more broadly, are not removed yet—the Portuguese consumers are still paying the highest income-adjusted energy prices, next to only Cyprus, and most of the FDI is still flowing into the nontradables sectors.

Summary

Portugal 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, and doing so requires continued strengthening of external competitiveness. This can be achieved only through structural reforms: Portugal, as a member of the currency union with limited fiscal space, has no other options.

Despite Portugal's stellar external performance (as measured by the gross exports-to-GDP ratio), we argue that it may not be fully sustainable, because gross exports is a flawed measure of competitiveness gains. DVA exports is a better measure and it has exhibited

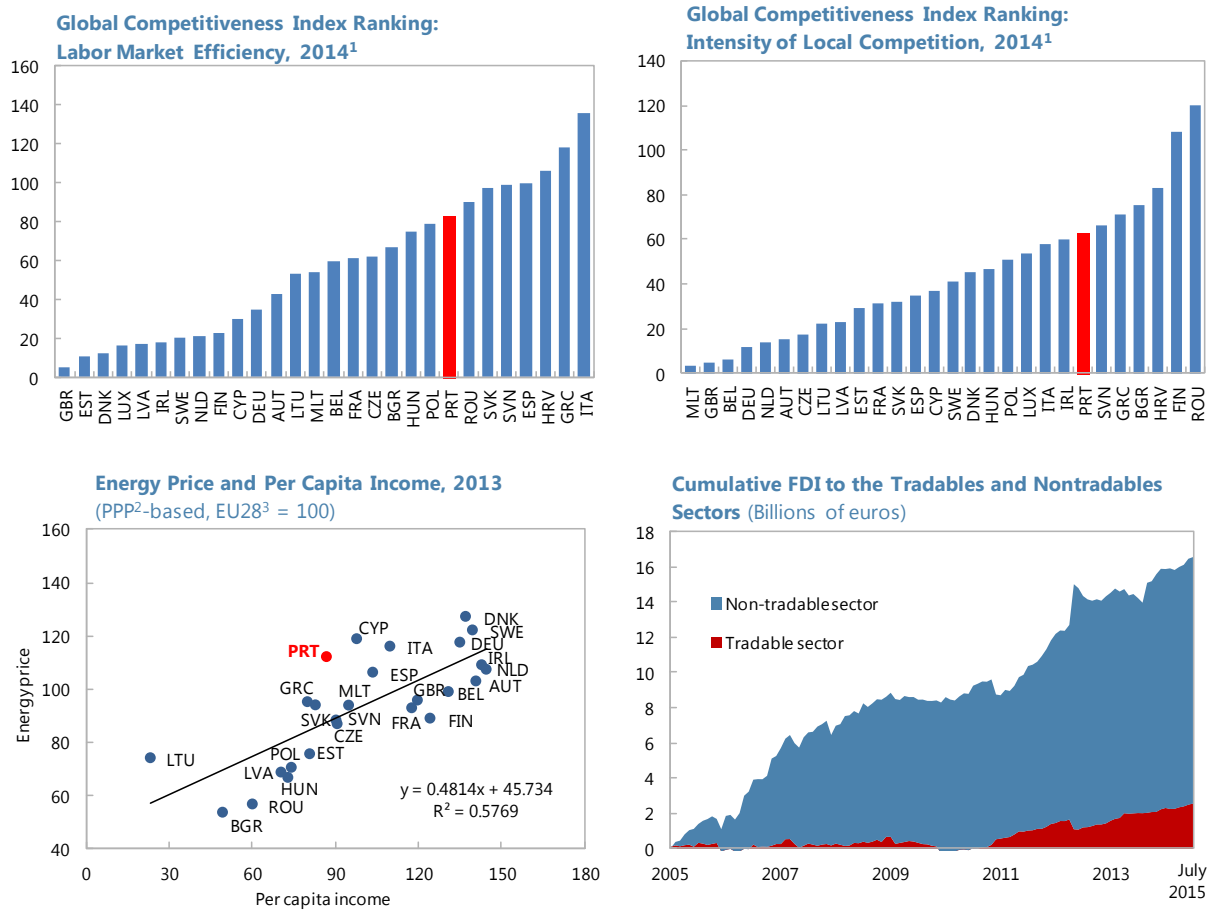
[9] This is the difference between the fitted values of Portugal for 2010 and 2013, based on the regression reported in column (5) of Table 3.2. For 2013, the unit wage cost gap between services and manufacturing industries in 2012 (latest available) was used. The range between 2 to 3 percent of GDP 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.

[10] 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.

strong and robust empirical linkages with a small set of structural indicators. Our analysis of DVA exports suggests that competitiveness gains are likely to be 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 key structural areas suggests that the observed improvement in external performance is likely to be more transitory than desired.

The structural factors identified in this paper should not be interpreted narrowly. For instance, in addition to employment protection, other labor market indicators also 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/tradables sectors, which are consistent with the policy recommendations made during the 2011–14 IMF program.

Figure 3.4. Latest Structural Indicators



Sources: Bank of Portugal; Eurostat; World Economic Forum; and IMF staff calculations.

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

[2]Purchasing power parity (PPP).

[3]EU28 countries: Austria, Estonia, Italy, Portugal, Belgium, Finland, Latvia, Romania, Bulgaria, France, Lithuania, Slovakia, Croatia, Germany, Luxembourg, Slovenia, Cyprus, Greece, Malta, Spain, Czech Republic, Hungary, Netherlands, Sweden, Denmark, Ireland, Poland, United Kingdom.

Appendix I. Data

Appendix Table 3.1.1. Data Sources

Variable	Unit	Number of observations	Mean	Standard Deviation	Minimum	Maximum	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; and European Commission
Unit wage cost gap between services and manufacturing industries	Index	214	4.5	4.3	-4.1	23.9	LAF database; and European Commission
Intensity of local competition	Index	168	5.4	0.5	4.1	6.4	Global Competitiveness Index database; and Global Economic Forum
Integration with global value chain	Percent	216	73.8	5.7	59.8	85.6	Global Competitiveness Index database; and Global Economic Forum
PPP[1]-based GDP per capita	Thousand US$	216	26.2	9.1	7.8	42.7	World Economic Outlook database; and IMF
Real exchange rate (deviation from long-term mean)	Percent	216	6.8	12.0	-18.8	54.5	World Economic Outlook database (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

[1]Purchasing power parity (PPP).

References

Koopman, Robert, Zhi Wang, Shang-Jin Wei. 2014. "Tracing Value-Added and Double Counting in Gross Exports." *American Economic Review*. 104 (2): 459–94.

International Monetary Fund (IMF). 2013. IMF Country Report 13/18. "Portugal—2012 Article IV Consultation and Sixth Review Under the Extended Arrangement and Request for Waivers of Applicability of End-December Performance Criteria. Washington.

International Monetary Fund (IMF). 2015. IMF Country Report 15/21. Portugal—Staff Report for the 1st Post-Program Monitoring Discussions. Washington.

4 Dealing with Public Debt Overhang: Fiscal Adjustment and Challenges Ahead[1]

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). 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 chapter takes stock of fiscal consolidation from 2011 to 2014, and proposes measures to increase the efficiency of spending and make space for targeted reforms aimed at promoting faster growth.

Buildup of Imbalances Prior to the Crisis

An expansionary fiscal policy and the materialization of large contingent liabilities have resulted in 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 gross domestic product (GDP).[2] About two-thirds of this increase has been due to fiscal deficits—the result of loose fiscal policies since euro adoption in 1999, together with adverse movements in interest rates. 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. The contraction in output experienced during 2011–13 also contributed to the increase in the ratio of public debt to GDP during this period.

A significant expansion of social spending over the past 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 between 2000 and 2010. In particular, spending on social benefits rose sharply during this period (+5.7 percentage points of GDP).

---

[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.

[2] The data in this chapter reflect the September 2015 excessive deficit procedure (EDP) notification.

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 public-private partnership (PPP) programs in the world in the decade prior to the crisis, with cumulative investment of 12 percent of GDP in 1990–2011 (IMF 2014a). Similarly, the state-owned enterprise (SOE) sector expanded considerably, often to circumvent stricter policies applied to the general government entities in order to minimize the short-term impact on the deficit and debt indicators. In the aftermath of the global financial crisis, the financial imbalances that accumulated in SOEs led to the reclassification of a number of these entities to within the general government perimeter, adding over 10 percent of GDP to the stock of public debt.

Program Intervention and Implementation to Date

The strategy under the IMF-supported Extended Arrangement envisaged a sharp fiscal consolidation, with a front-loading of measures in order to boost credibility and restore market confidence. The fiscal path aimed to stabilize public debt through a sharp improvement in the primary balance and to achieve a fiscal deficit of 3 percent of GDP by 2013 (in line with the Stability and Growth Pact [SGP] objective), compared with 9.1 percent of GDP in 2010 (according to European System of Account [ESA95]).

An ambitious program of structural fiscal reforms was also adopted to support the consolidation efforts. Reforms aimed to streamline the functioning of the public sector in order to reduce fiscal risks. Priority was given to (1) better monitoring and reducing arrears, and strengthening commitment controls to prevent expenditure overruns; (2) designing subnational government financial arrangements; (3) enhancing the management and reporting of fiscal risks arising from PPPs and SOEs; and (4) reinforcing tax compliance and modernizing tax and customs administration.

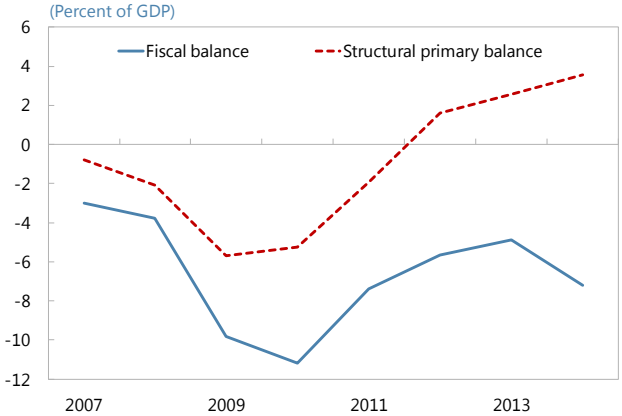
Portugal has made significant progress in its fiscal consolidation efforts over the period of the program. An overall primary structural adjustment of 8.8 percent of GDP has been implemented since 2010, resulting in a shift to a sizable structural primary surplus

since 2012. However, the overall adjustment still fell short of the original program objectives.[3]

In addition, the composition of adjustment deviated significantly from the original program design. The program request in 2011 focused primarily on expenditure consolidation, given the unsustainable level of spending; thus, three-fourths of the fiscal consolidation planned for 2011–14 was expected to come through an across-the-board spending adjustment. However, efforts to reduce the public wage bill and rein in pension expenditures were hindered by recurrent adverse rulings by the Constitutional Court (CC). As a result, the authorities relied more than initially planned on revenue-based measures to achieve program targets, with nearly half of the structural primary adjustment achieved from 2011–14 coming from higher revenue, mostly resulting from major changes in value-added tax (VAT) and personal income tax (PIT).

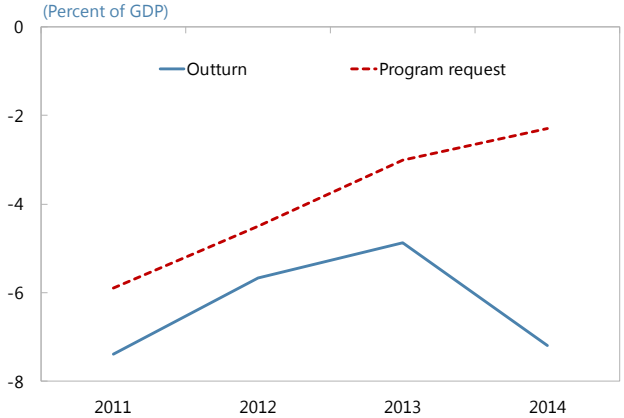
The bulk of the spending consolidation that was achieved came from investment spending (gross fixed capital formation), as current spending proved difficult to contain (Table 4.1). General government gross fixed capital formation was reduced by about 3.3 percent of GDP under the adjustment program (2010–14), while current spending continued to increase (by 1.1 percent of GDP). Non-interest current spending declined by 0.9 percent of GDP from 2010 to 2014 thanks to reductions in compensation of employees (–1.9 percent of GDP). However, these savings were partially offset by further increases in social benefits, which rose by 1.1 percent of GDP.

Figure 4.1. Fiscal Balance
(Percent of GDP)



Sources: INE; and IMF staff estimates.

Figure 4.2. Overall Fiscal Balance
(Percent of GDP)



Sources: INE; and IMF staff estimates.

[3] The 2014 outturn has been revised to reclassify the loan provided to the Portuguese resolution fund for the recapitalization of Novo Banco as a fiscal outlay, increasing the deficit to 7.2 percent of GDP from 4.5 percent as initially reported.

Table 4.1. General Government Spending by Economic and Functional Classifications

(On the ESA 2010 basis)

	2008	2009	2010	2011	2012	2013	2014	Difference (2014–2010, percentage points of GDP)
	(Percent of GDP)							
	Economic classification							
Total expenditure	45.3	50.2	51.8	50.0	48.5	49.9	51.7	-0.1
Current spending	41.3	45.4	44.6	45.6	45.3	46.7	45.7	1.1
Compensation of employees	13.1	14.0	13.7	12.8	11.7	12.5	11.8	-1.9
Goods and services	5.5	6.2	5.9	6.0	5.8	5.6	5.8	-0.1
Interest payments	3.1	3.0	2.9	4.3	4.9	4.9	4.9	2.0
Subsidies	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.0
Current transfers	2.3	2.7	2.8	2.9	2.7	2.7	2.8	0.0
Social benefits	16.7	18.8	18.6	18.9	19.6	20.4	19.7	1.1
Capital spending	4.7	4.7	7.2	4.4	3.5	3.1	5.9	-1.3
Gross fixed capital formation	3.7	4.1	5.3	3.5	2.5	2.2	2.0	-3.3
								Difference (2013–2010, percentage points of GDP)
	Functional classification							
Total expenditure	45.3	50.2	51.8	50.0	48.5	50.1		-1.7
General public services	6.1	7.1	8.2	8.5	9.1	9.0		0.8
Defense	1.3	1.5	2.0	1.3	1.2	1.1		-0.9
Public order and safety	1.8	2.0	2.1	2.3	2.1	2.2		0.1
Economic affairs	4.7	4.8	5.0	4.0	2.8	3.4		-1.6
Environment protection	0.6	0.6	0.6	0.5	0.4	0.4		-0.2
Housing and community amenities	0.9	0.9	0.7	0.6	0.6	0.7		0.0
Health	7.2	7.9	7.3	6.8	6.5	6.7		-0.6
Recreation, culture, and religion	1.1	1.1	1.1	1.0	0.9	1.0		-0.1
Education	6.8	7.4	7.7	7.3	6.5	6.8		-0.9
Social protection	15.0	16.9	17.1	17.7	18.2	18.9		1.8

Sources: Eurostat (ESA 2010); and IMF staff calculations.

Table 4.2. Primary Spending in Portugal and the Euro Area by Level of Government[1]

(Percent of GDP, unless otherwise indicated)

	2000	2001	2005	2010	2014		
	Nominal primary spending (Percent of GDP)					2000–2010 (Change)	2010–2014 (Change)
General Government							
Portugal	39.6	41.1	44.1	48.9	44.0	9.3	-4.9
Italy[2]	39.4	41.4	42.6	45.6	46.5	6.2	0.9
EU 18	43.6	44.8	45.3	47.7	44.1	4.1	-3.6
Central Government							
Portugal	29.3	30.2	32.8	36.1	31.8	6.8	-4.3
Italy	20.1	22.1	22.2	25.0	25.0	4.9	0.1
EU 18	18.5	19.8	20.2	22.7	19.6	4.2	-3.1
Local Government							
Portugal	5.9	6.3	6.4	7.4	6.1	1.5	-1.3
Italy	13.5	14.1	15.0	15.5	14.5	2.0	-1.0
EU 18	15.5	15.7	16.0	16.5	15.0	0.9	-1.4
Social Security Funds							
Portugal	9.3	9.7	10.7	12.4	13.3	3.1	0.9
Italy	16.2	16.0	16.5	19.0	20.3	2.9	1.3
EU 18	21.6	21.6	21.1	21.9	21.3	0.2	-0.6
	Real primary spending growth (Percent)					Average over 2001–2010	2010–2014 (Change)
General Government							
Portugal		5.8	2.2	5.4	-1.7	2.9	-2.2
Italy		7.1	1.9	-0.8	0.4	1.8	-0.6
EU 18		4.3	1.6	1.4	1.0	0.9	-0.1
Central Government							
Portugal	…	4.9	2.3	6.9	-1.2	2.9	-2.3
Italy	…	12.3	2.8	-1.8	1.1	2.6	-1.1
EU 18	…	8.6	2.2	3.8	-0.1	2.1	-0.9
Local Government							
Portugal	…	8.2	3.1	3.0	-6.4	3.0	-4.4
Italy	…	6.5	1.1	-2.6	-2.3	1.7	-2.7
EU 18	…	2.3	0.8	-0.1	0.8	0.6	-0.6
Social Security Funds							
Portugal	…	6.1	3.4	2.8	-3.3	3.7	0.7
Italy	…	0.4	1.6	1.9	-0.3	2.0	0.8
EU 18	…	1.4	1.1	1.6	1.8	0.1	1.0
	Real GDP growth (Percent)					Average over 2001–2010	2010–2014 (Change)
Portugal	…	1.9	0.8	1.9	0.9	0.8	-0.9
Italy	…	1.8	0.9	1.7	-0.4	0.3	-0.5
EU 18	…	2.1	-3.7	2.0	6.3	0.7	1.7

Sources: Eurostat; and IMF staff estimates.

[1]Spending by level of government includes transfers across levels of government, which are netted in general government data.

[2]Italy was chosen as comparator country because its pre-2010 spending growth and the current debt level are similar to Portugal's.

From a functional perspective, the reduction in spending was concentrated in the economic and security sectors (Table 4.1). 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 spending (particularly on primary and secondary education) were fully offset by higher social protection spending, driven by public pension outlays. General public services outlays, meanwhile, significantly increased on the back of higher debt service payments.

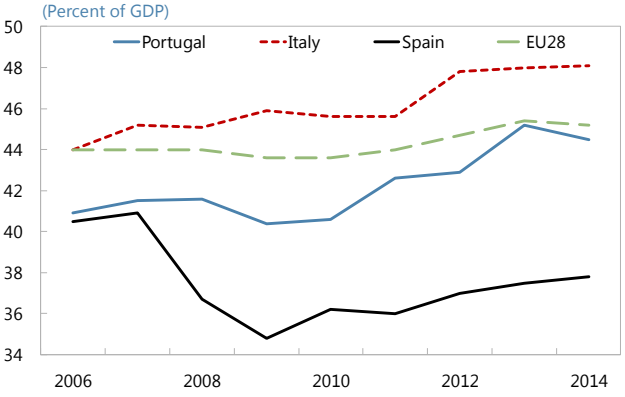
In 2000–10, real primary spending growth outpaced real output growth for all levels of government, particularly in the social security sector (Table 4.2), highlighting the role of weak expenditure control in the buildup of fiscal imbalances prior to the crisis. By comparison, real growth in primary spending in euro area countries was more in line with real output growth over the same period.

Creating Fiscal Space for Growth-Enhancing Measures

General Government Expenditure Targets

Empirical evidence suggests that spending rules are associated with expenditure containment and higher primary balances, and have a higher likelihood of compliance than other fiscal rules (IMF 2014b). Such rules would help mitigate spending pressures and ensure that future adjustment focuses on spending reform rather than further revenue measures, given Portugal's already-high tax burden. Government revenue as a share of GDP in Portugal has risen at about three times the pace of the euro area since 2006 (in Spain, Portugal's largest export market, it has actually fallen).[1] 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 (see Box 4.1) are applied to debt reduction.

Figure 4.3. General Government Revenue
(Percent of GDP)



Sources: Eurostat; and IMF staff calculations.

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

Since 2012, Portugal's medium-term budget framework (MTBF) has set expenditure 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 that have not yet reached their Medium-Term Objectives[2]). However, this has yet to be implemented.[3]

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 (IMF 2015).[4] Estimates show that keeping real primary expenditures unchanged in real terms from 2016 to 2018 would be consistent with the adjustment envisaged in the authorities' April 2015 Stability Program, which targets a reduction in primary spending of 3.3 percent of GDP from 2015 to 2019.[5]

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 the central government, and exclude expenditure financed by own-source revenues (IMF 2014b). In order to ensure their effectiveness, real primary expenditure targets should cover all general government expenditure, and be sufficiently binding to anchor fiscal policy at all levels of government. The new Budget Framework Law 151/2015 requires that from 2019 the MTBF also covers social security (excluding unemployment spending) and expenditures financed with own-source revenues. This would require setting indicative aggregate spending targets for local governments[6] and social security funds either in the medium-term fiscal strategy or

[2] The Medium-Term Objective (MTO) is set by the European Commission for each EU member state under the preventive arm of the Stability and Growth Pact. It consists of a country-specific medium-term budget target, defined in structural terms, intended to ensure progress toward compliance with EU fiscal rules. Portugal's objective was set in 2013 at –0.5 percent of GDP, to be met by 2016. All countries must reach their objective or be on an appropriate adjustment path toward it, determined in reference to the size of the output gap.

[3] As the expenditure benchmark does not apply to countries subject to the Excessive Deficit Procedure.

[4] 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 2015.

[5] The Stability Program 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 Stability Program assumes real GDP growth of 2.4 percent in 2019, compared with staff's projection of 1.2 percent.

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

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),[7] 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 its own revenue sources.

Specific policy measures to contain spending should also be identified to enforce the expenditure targets, with a focus on public sector wages and pensions.[8] 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. 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 over the medium term, 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.

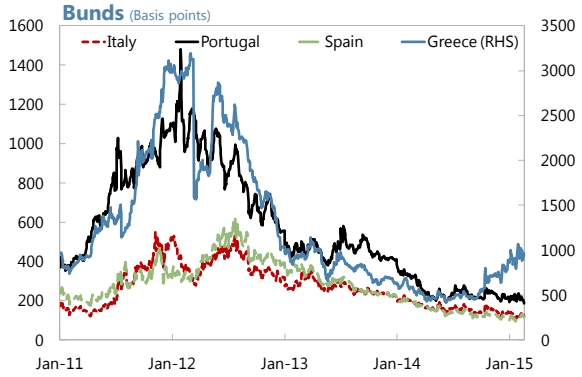
[7] The 2013 Local Finance Law created an early warning mechanism for local governments that break the debt ceiling rule. This mechanism could also be used to monitor expenditure growth.

[8] This also aligns with the fiscal plans outlined in the Stability Program, which target expenditure savings of 2.5 percent of GDP from 2015 to 2019 from rationalization of the public sector wage bill and social security reform.

Box 4.1. Determinants of Portuguese Interest Rates

Portuguese sovereign bond yields spiked in response to global financial turbulence in 2008–09, receding with market conditions but rising again as the European debt crisis took hold. Several factors have driven the Portuguese 10-year yield down since its peak in early 2012, including a package of economic reforms, macroeconomic recovery, elevated investor risk sentiment, and the establishment of a more robust European backstop. While public debt levels remain high, it is important to understand the relative contribution of each of these factors in order to assess the future path of interest rates and the fiscal burden of interest payments.

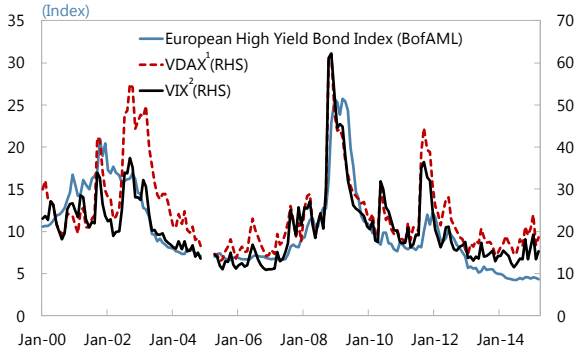
Figure 4.1.1. Ten-Year Sovereign Spreads over Bunds (Basis points)



Sources: Bloomberg; and IMF staff calculations.

Figure 4.1.2. Measures of Investor Risk Aversion

(Index)

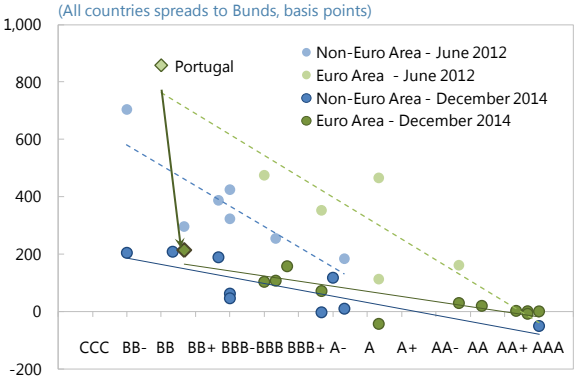


Sources: DataStream; and IMF staff calculations.
[1]Volatility index for the DAX (German Stock Index).
[2]Chicago Board Options Exchange Volatility Index.

High euro area sovereign yields began declining in tandem in the summer of 2012 as details about the European Central Bank's (ECB) bond-buying programs were clarified. Over the same period several key indicators of investor risk sentiment also declined to near historical lows including the Chicago Board Options Exchange Volatility Index, the volatility index for the DAX (German Stock Index), and the index of High-Yield European Bonds. Portuguese economic fundamentals also improved over this period. The Portuguese government undertook a number of structural reforms, in particular to resume economic growth, strengthen private sector balance sheets, and improve debt management. The fiscal deficit narrowed and the current account deficit moved into surplus, debt levels stabilized, and unemployment declined.

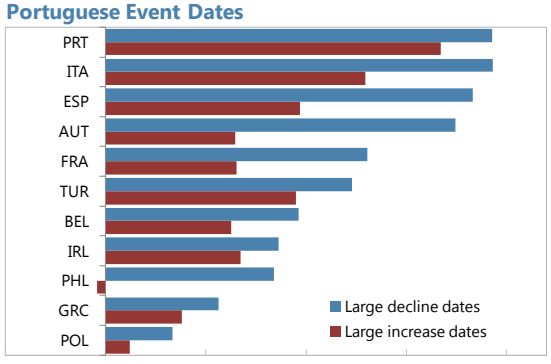
Figure 4.1.3. Credit Ratings and Spread Compression

(All countries spreads to Bunds, basis points)



Sources: Bloomberg; and IMF Staff Estimates.

Figure 4.1.4. Percent of Total Spread Decline on Portuguese Event Dates



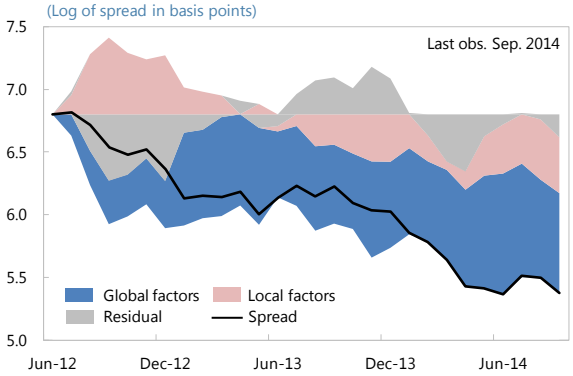
Source: IMF staff calculations.

A few stylized facts suggest that global factors explain most of the decline in spread volatility. Credit ratings across European sovereigns, a rough proxy for creditworthiness, have not improved significantly during the crisis, but their relationship with spreads has been significantly compressed. Similarly, outlier trading days—when the Portuguese spread rose or fell by more than two standard deviations—saw other European sovereign spreads moving in the same direction. If news about local factors were driving big spread movements, we would expect these outlier trading days to be uncorrelated across countries.

Box 4.1. Determinants of Portuguese Interest Rates (Concluded)

A statistical analysis of the evolution of 10-year sovereign bond spreads over this period also suggests that global and euro area-wide factors played a lead role in the decline in spreads. Panel regressions including a range of domestic, pan-European, and global variables indicate that Portuguese sovereign yields could rise significantly if investor risk sentiment and conditions in Europe return to their average values over the past 15 years. The estimates suggest that improvements in Portuguese economic flow variables have been largely offset by persistent stock imbalances, which continue to weigh on investors' assessments. In addition, quantile regressions indicate that Portuguese spreads are particularly sensitive to stock imbalances, especially the public debt-to-GDP ratio, when spreads are high, while sensitivity to measures of risk aversion holds at all spread levels.

Figure 4.1.5. Contributions to Spread Growth
(Log of spread in basis points)



Sources: Bloomberg; DataStream; Haver; and IMF staff estimates.

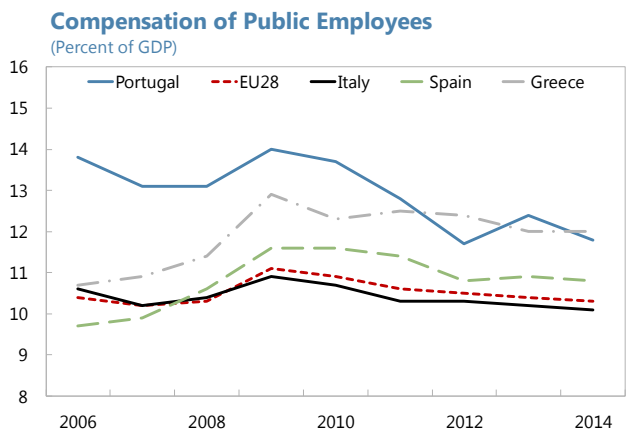
Several local factors, which were not included in the analysis due to data limitations, may be responsible for some of this decline, biasing our results toward global factors. These include perceptions of Portuguese program ownership, the establishment of a sizable cash buffer, the lengthening of average debt maturity, and the diversification of the investor base. These factors certainly played some role but are difficult to quantify in a consistent way in a panel study. Other methodologies, for example a risk-on/risk-off regime-switching model, might suggest that current spreads can be maintained for as long as current conditions persist.

To the extent that these results reflect greater investor confidence in the European backstop, the observed gains may be treated as largely permanent. Normalization of investor risk sentiment, however, is an ongoing source of concern. Monetary policy liftoff in the United States and other global sources of volatility could cause a shift in credit risk pricing. A decisive and durable reduction in stock imbalances would help to limit Portuguese fiscal exposure to these conditions and secure recent gains from other reforms.

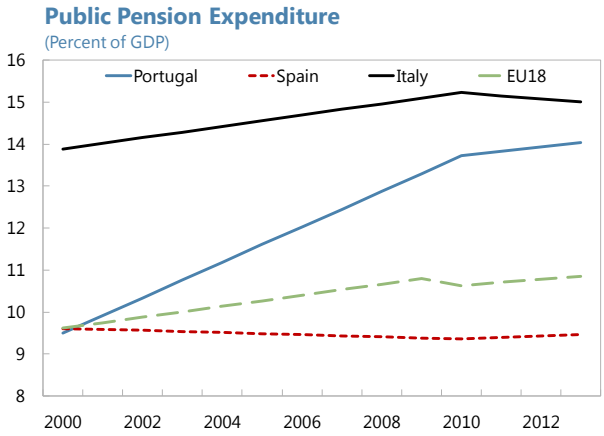
Public Sector Employment and Compensation

Portugal has achieved a comparatively large reduction in public employment since 2011 (Table 4.4). General government employment declined by about 10 percent over this period, reflecting a reduction at all levels of government. Attrition was the main driver of employment rationalization, as several measures intended to help encourage mobility outside the public sector (including the mobility pool and termination scheme) proved less successful than expected.

Figure 4.4. Public Wages and Pension Expenditure



Sources: Eurostat; and IMF staff calculations.



Sources: OECD; and IMF staff calculations.

Table 4.3. General Government Employment (ESA 2010)

(Number of employees)

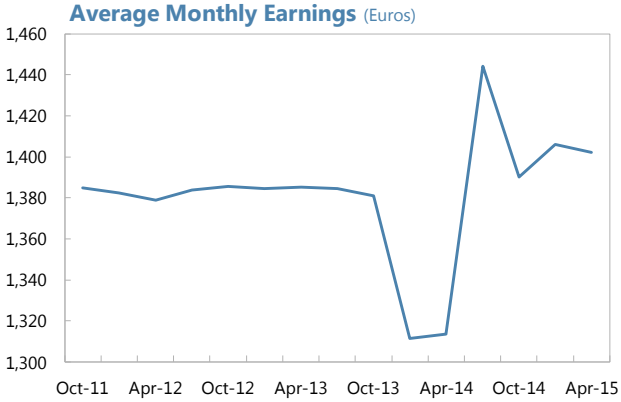
	2011	2012	2013	2014	Percent change (2011-2014)
General government	727,294	699,480	674,338	655,820	-9.8
Central government	551,373	529,844	509,520	497,020	-9.9
Local governments	163,178	157,324	153,072	148,078	-9.3
Social Security Funds	12,743	12,312	11,746	10,722	-15.9
					Percent change (2012-2014)
Public Entities out of general government[1]		72,855	57,986	57,512	-21.1
Central government		56,135	41,608	41,348	-26.3
Local governments		16,720	16,378	16,164	-3.3
Total Public sector		772,335	732,324	713,332	-7.6

Source: Directorate-General for Administration and Public Employment.

[1]Some SOEs were reclassified in the general government in line with ESA 2010, and are not excluded consistently over the 2011–September 2014 period.

However, efforts to contain the public wage bill by curtailing compensation spending proved less successful, largely due to successive adverse CC rulings. Although a first round of wage cuts was permitted by the court, they are expected to be fully reversed by end-2016, at a total cost of 0.3 percent of GDP. The suspension of both the holiday and the Christmas allowances for civil servants after 2012 (and the second wave of wage cuts adopted in the 2014 Budget Law) were also successively canceled (with no retroactive effect).[9] As a result, average monthly public earnings now exceeds its end-2011 level, partly due to the payment of the Christmas bonus in 12 installments.

Figure 4.5. General Government Employees: Average Monthly Earnings (Euros)



Source: Directorate-General for Administration and Public Employment (DGAEP).

Several other structural reforms have moved slowly and will generate much more limited savings than envisaged. The Single Wage Scale was initially expected to generate significant savings (of about 0.4 percent of GDP) by streamlining career paths and allowing a permanent reduction of the pay level. Savings (of about 0.1 percent of GDP) were also expected from the adoption of the Single Supplements Scale through a reduction in the number of supplements. However, design issues as well as extensive phasing in (these reforms will be applied only to new employees and those with mobility between careers) will limit savings in the short and medium term.

The CC decisions have also created significant legal obstacles to reining in the public sector wage bill going forward. In particular, the CC requires (1) the burden of fiscal consolidation to be shared between civil servants and the rest of the population, and (2) wage bill consolidation to take place through structural reforms of public employment, rather than nominal cuts in wages. These legal restrictions necessitate a more strategic approach to reining in the wage bill over the medium term. The main challenge for Portugal will be to increase capacity in public administration, while reducing both public employment and the wage premium relative to the private sector.

There is considerable scope for rationalization of the public sector to reduce duplication and streamline public services. The public sector in Portugal is highly fragmented, with 6,095 separate institutional units (IMF 2014a/b). The central government, in particular, comprises

[9] The holiday and the Christmas allowances for pensioners were also canceled, but they are not classified in the wage bill category.

331 units, including 298 autonomous funds and services 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 (IMF 2014a/b), privatization or dissolution of about half of local SOEs, and a reduction of nearly one-third in the number of parishes responsible for administration at the municipal level. However, there is still a very large number of SOEs outside the general government, and a reassessment is needed on the role and functions of the various levels of government in Portugal going forward (Cangiano 2013). 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 public employment needed to deliver the desired level of services.

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 should fall in line with the declining school-age population (see below). 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 working hours (to 40 per week) should be enforced across the public sector, in particular in local governments.

A key objective of these reforms should be to reduce the disparity between public and private sector wages (Manuel Campos and Centeno 2012). At present, less qualified civil servants receive relatively high pay compared with peers in the private sector and with more qualified civil servants. In addition, the wage scale 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 for those people (IMF 2013). In order to become more attractive for high-skilled workers and benefit from ongoing improvements in the quality of tertiary education,[10] the civil service should identify specific skills that are

[10] In 2012, 28 percent of 25–34-year-olds had achieved tertiary education, compared with 11 percent of 55–64-year-olds.

needed in the public sector, and revise the relatively flat wage structure that proves costly and impairs talent acquisition (IMF 2013).

Finally, further measures are needed to contain the wage drift embedded in the current system.[11] 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 (IMF 2010). In the past, Portugal has been characterized by a powerful automatic progression system, which translated into early attainment of higher wage levels in most occupational careers, particularly for high-skilled workers (Centeno and Coutinho Pereira 2005). 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 automatic progression by lengthening the maximum duration for a civil servant in each scale level. This could be anchored on the recent extensions of the retirement age (see below), and would make career progression more gradual, to avoid an early attainment of high wages.

Pension System

Portugal has implemented a number of reforms to the pension system in recent years. These measures include (1) the introduction of a "sustainability factor" in 2007 linking initial benefits with improvements in life expectancy at retirement; (2) the increase in the legal retirement age to 66 years, with further automatic increases linked to the evolution of life expectancy; (3) the suspension of pension indexation (excluding the minimum pensions); and (4) 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.

However, the impact of these changes on pension expenditure has been limited by legal roadblocks and an excessive backloading of savings.[12] The reforms introduced to date will

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

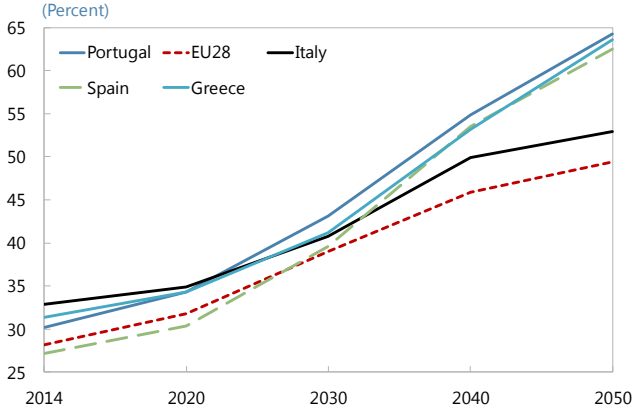
[12] The following measures were canceled: (1) the suspension of the holiday and the Christmas allowances for public pensioners, (2) the new calculation formula for surviving dependents' pensions, (3) the reduction in pension benefits granted within the pension scheme for the public sector, and (4) the progressive sustainability contribution on pensions. As a result of the cancellation of the progressive sustainability contribution, minor increases in employee's social security contributions and in the standard VAT rate were also cancelled (European Commission 2014).

generate savings only over the long term due to extensive grandfathering rules that protect current retirees. Therefore, public pension spending is expected to increase to 15.0 percent of GDP in 2030, before gradually declining to its 2013 level (13.8 percent of GDP) only by 2055 (EC 2015). On average in the EU, gross pension spending will spike at 11.7 percent of GDP in 2035, and then decline to 11.3 percent in 2055. In addition, the CC rulings have invalidated a number of changes to the pension system implemented under the program, imposing a requirement that reforms must account for equity and intergenerational solidarity issues, and not undermine the acquired rights of people who are already pensioners.

Moreover, Portugal's public pension system remains inequitable, and will face major adverse demographic pressures in the long run. 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.

Further pension reforms should aim to limit indexation and shorten the transition period to the new pension system, as gross spending on public pensions is expected to increase in the medium term (from 13.8 to 15.0 percent of GDP between 2013 and 2035, according to EC 2015). 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 needed to prevent a procyclical increase in pension spending going forward. Second, the authorities should further 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 before December 2005). Finally, employees' contribution to CGA could increase over time to limit subsidies received from the central government; for example, an increase by 1 percentage point of employees' CGA contribution would provide about 0.1 percent of GDP of additional revenues annually.

Figure 4.6. Projected Old Dependency Ratios
(Percent)



Sources: Eurostat; and IMF staff estimates.

In addition to the adjustment of benefits to account for improvements in life expectancy introduced under the program, an economic adjustment factor 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.

Finally, pension reforms could contribute to higher labor force participation. Portugal has already introduced bonuses in order to postpone retirement. The following reforms can raise labor participation further, particularly for low-skilled workers: (1) increase the reward for additional years of contributions for low-income workers, and (2) the minimum pension could be set to increase in strict proportion to the number of years of contributions, hence eliminating the current step increases (at 20 and 30 years of contributions), which create incentives for informality.[13]

Supporting Growth through Targeted Fiscal Measures

Growth-Friendly Tax Policy

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, then consumption and property taxes (OECD 2010). Corporate taxes are deemed to discourage capital accumulation and productivity improvement, and often introduce a bias toward the use of debt financing (IMF 2014a/b). Therefore, a shift from direct income tax to indirect consumption and property tax is usually considered to be supportive of growth, as consumption and property taxes create less of a distortion of saving and investment decisions. Given that the VAT is generally regressive in advanced economies, tax reforms should be carefully designed to balance distributional and efficiency objectives. For example, minimizing the use of exemptions or reduced VAT rates and using the proceeds to increase social benefits is found to significantly reduce inequality while boosting tax revenues (IMF 2014a/b). In addition, increasing tax incentives for private research and development spending is often recommended as a way to support innovation and boost productivity growth.

In 2012, labor taxation in Portugal was significantly lower than the euro area average and lower than in 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.[14] Indeed, incidence analysis shows that the incidence of corporate taxes tend to fall on

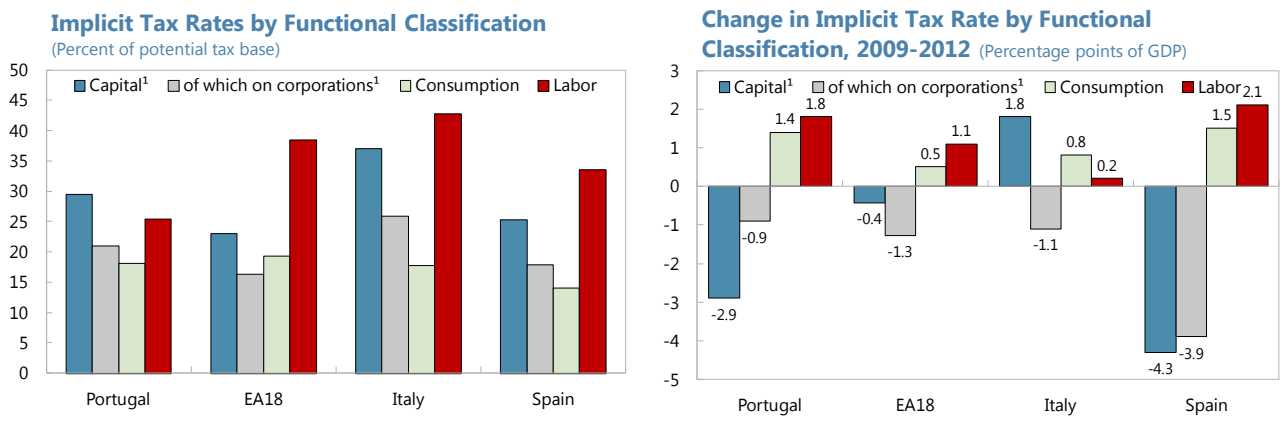
[13] For example, with a minimum contribution history of 15 years, minimum pensions increase at 20 years of contributions, and then again at 30 years of contributions. Hence, low-income workers, who likely receive a minimum pension, do not gain from contributing in years 16–19 and 21–29.

[14] In addition, a comprehensive reform of the property tax was adopted, which included a general update of the values of properties to increase revenues.

labor to the extent that labor is relatively less mobile than capital.[15] Reducing taxation on capital could therefore be more progressive than usually considered, and could contribute to lower taxes on labor and capital, hence improving competiveness and employment. However, the implicit taxation of labor increased further during the program period through higher PIT.

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 small and medium enterprises (SMEs). These reforms should help create a business environment that is conducive to higher investment.

Figure 4.7. Implicit Tax Rates



Sources: European Commission; and IMF staff calculations.
[1]EA18 series excludes Greece, Luxembourg, and Malta.

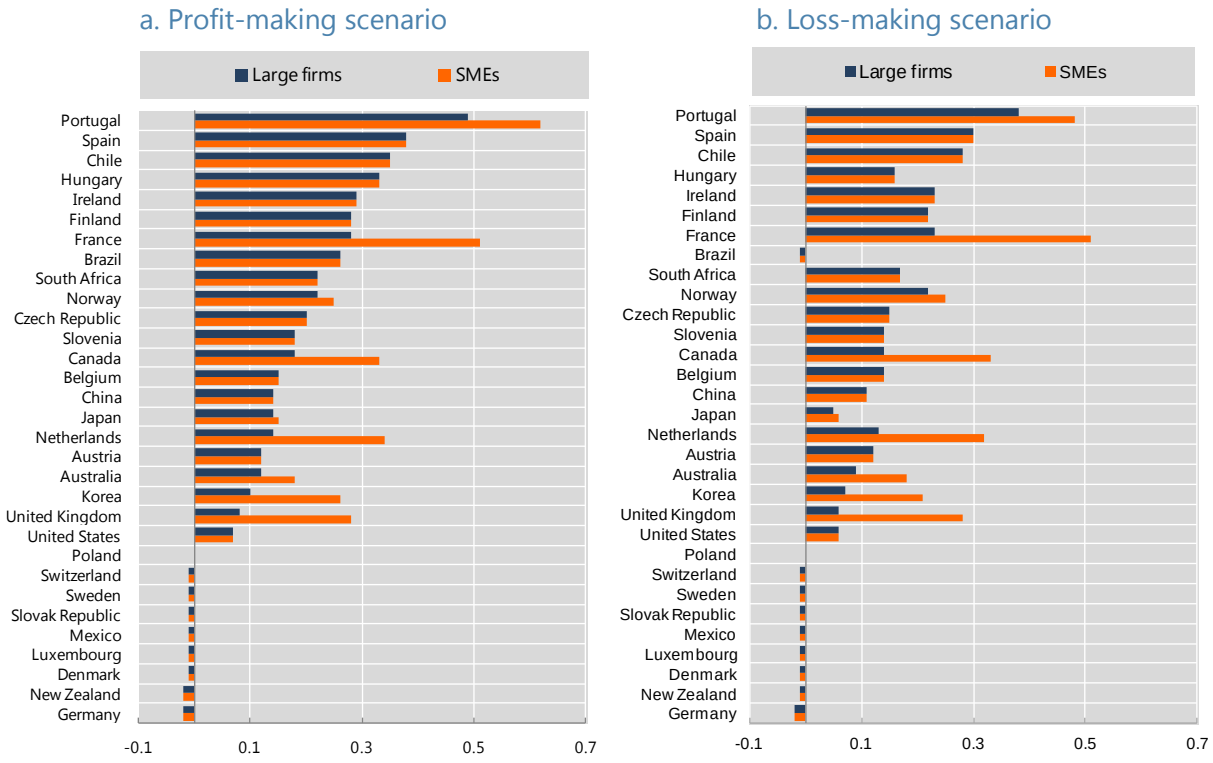
Sources: European Commission; and IMF staff calculations.
[1]EA18 series excludes Greece, Luxembourg, and Malta.

Tax incentives for research and development in Portugal compare 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 for 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 research and development (R&D) spending.

[15] Recent empirical evidence on the long-run incidence of corporate taxes suggests that between 45 and 75 percent of the corporate tax burden falls on wages. See IMF 2014a/b.

Figure 4.8. Tax Subsidy for R&D Expenditures, 2013

(Rates, 1-B-index)[1]



Source: OECD Science, Technology and Industry Outlook 2014.

[1]The OECD defines the tax subsidy rate as a measure of the before-tax income needed by a firm to break even on US$1 of R&D outlays.

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 (OECD 2010). A reduction in VAT exemptions and in the use of reduced rates could also partially offset the CIT reform fiscal costs, and would further shift the tax burden from income to consumption. In terms of equity, VAT exemptions and reduced rates are blunt redistributive instruments, because the rich generally spend more in absolute terms on exempted goods and thus enjoy significant benefits. Targeted transfers and progressive PIT transfers are usually more effective tools to help the poor and the most vulnerable (IMF 2014a/b). Revenue administration reforms could also support growth by further lowering compliance costs, and reducing tax avoidance.

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 (IMF 2011). The large debt burden in Portugal continues to have a significant adverse impact on both corporate investment and bank balance sheets. Portugal has progressively limited the deductibility of interest for companies in order to reduce the debt bias and prevent debt shifting by the multinational companies, in line with common practice in the EU.[16] This could be complemented by introducing an allowance for corporate equity (ACE), which provides a deduction for the normal return on equity, equivalent to the rate of return on 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 (De Mooij, Keen, and Orihara 2015). 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.

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 Efficient Productive Public Expenditure to Support Growth

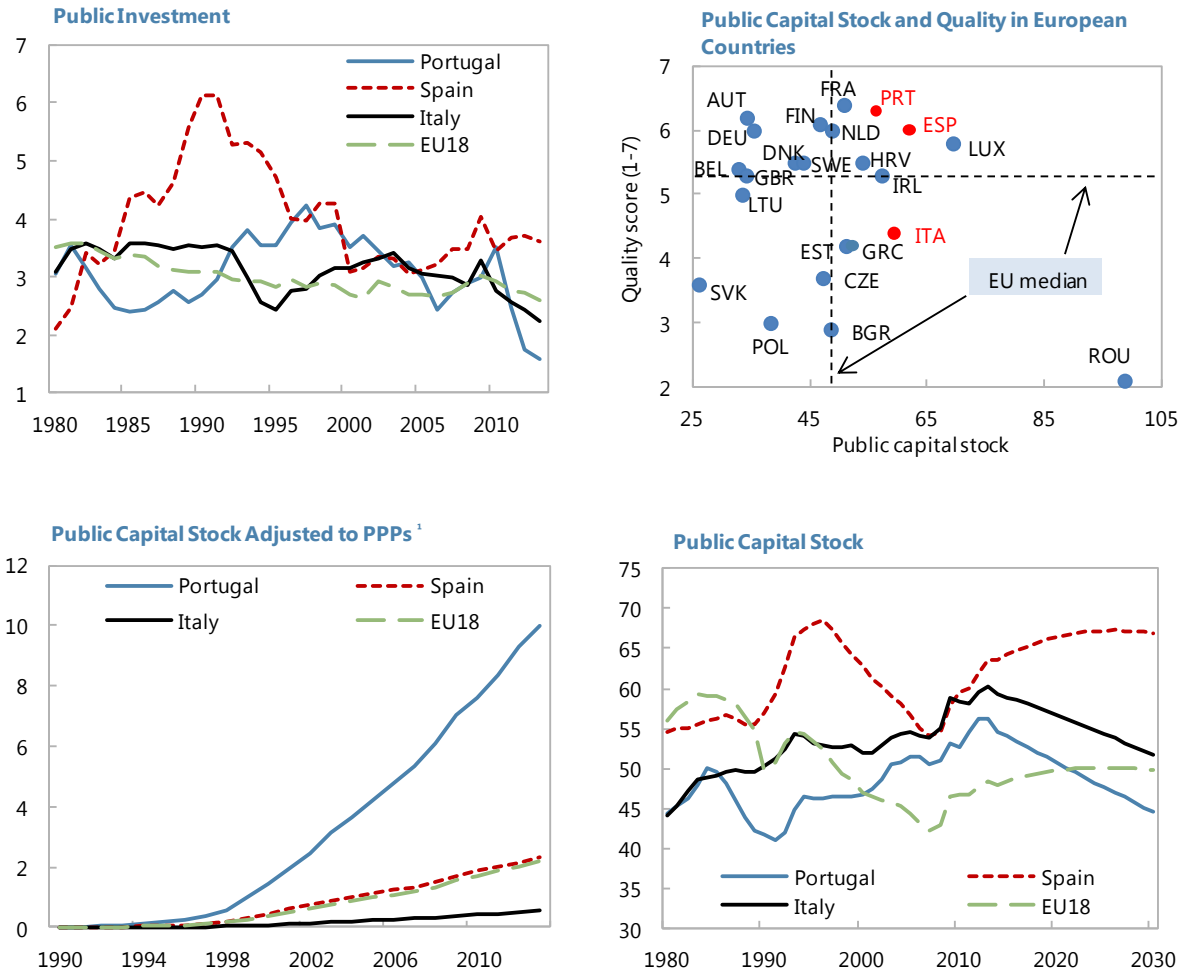
Public infrastructure investment is typically considered to have a positive impact on output growth, in the short term through demand effects and the crowding in of private investment, and in the long term by raising productive capacity of the economy.[17] In addition, debt-financed projects could have 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 increased

[16] 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.

[17] See IMF 2014a/b. Demand effects are usually expected to be stronger where accompanied by economic slack and monetary accommodation, as in Portugal.

significantly in the two decades before the crisis, and was significantly higher than in the euro area until recently. This has brought about a large and high-quality public capital stock in Portugal. Moreover, the level of the public capital stock is likely underestimated due to the large role of public-private partnerships and SOEs, which are reported outside the general government in public investment.[18] As a result, there is little need for a further scaling up of public investment.

Figure 4.9. Public Investment and Capital Stock
(Percent of GDP, 2005 PPP US$-adjusted)



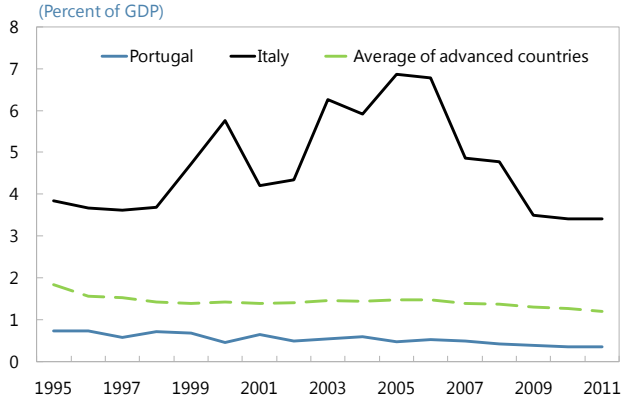
Sources: Center for International Comparisons (2013); OECD; WEO; and IMF staff estimates.

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

[18] 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).

Instead, 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 higher 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.

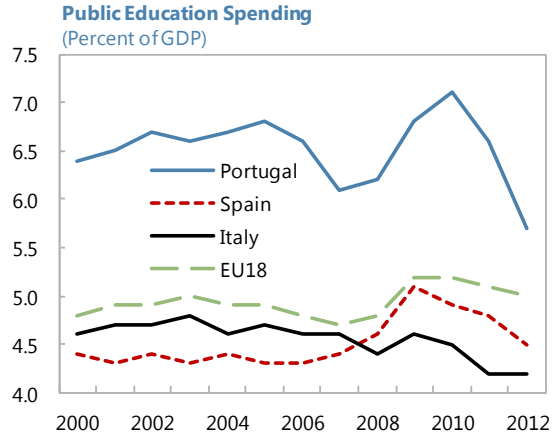
Figure 4.10. Maintenance Spending
(Percent of GDP)

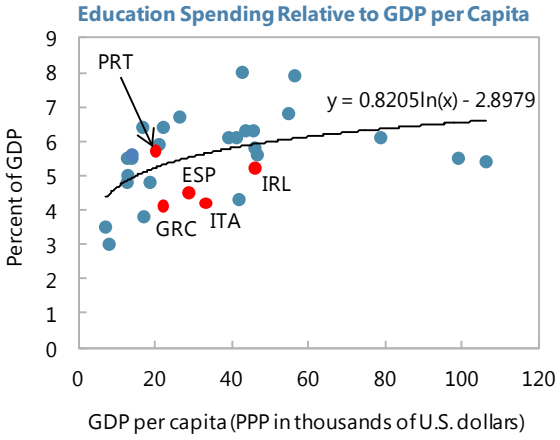


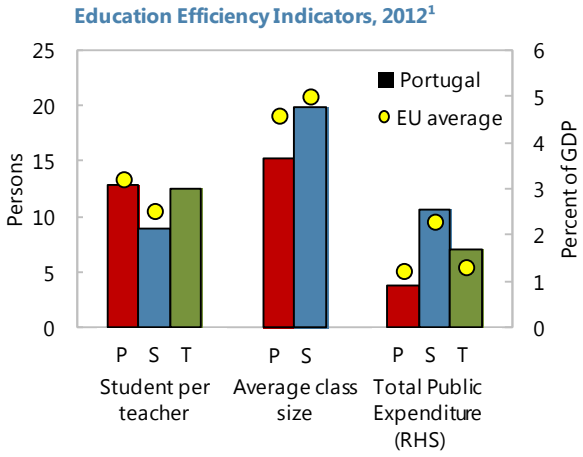
Sources: OECD International Transport Forum; and IMF staff calculations.

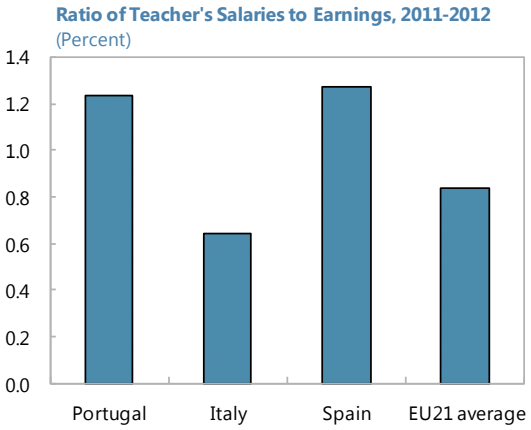
In addition, there is considerable scope to improve both the efficiency of education outlays and education outcomes in Portugal. Education spending rose significantly before the adjustment program (+0.7 percent of GDP in total over 2000–10), particularly on secondary and tertiary education. Despite a subsequent decrease, it remains above the EU average in percent of GDP, and significantly higher than in other southern European countries with higher GDP per capita. Average class size in Portugal was well 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 2000–12, education attainment remains lower, both for tertiary and non-tertiary educations. Portugal's Programme for International Student Assessment (PISA) scores significantly improved between 2003 and 2012, but remain below the EU average in mathematics and science.

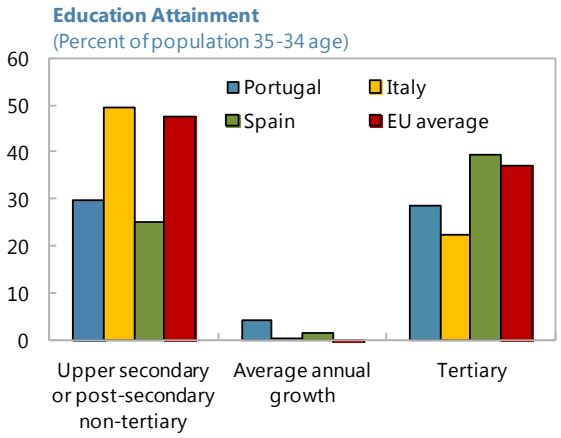
Figure 4.11. Education Indicators

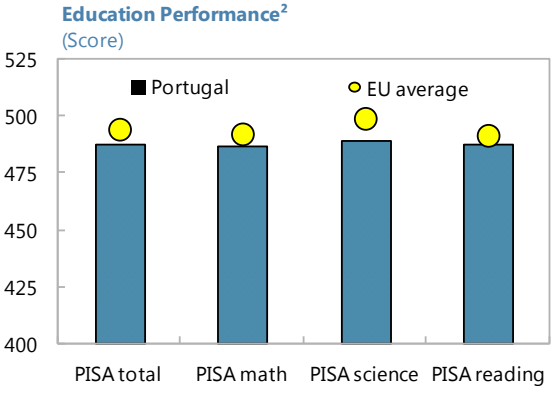












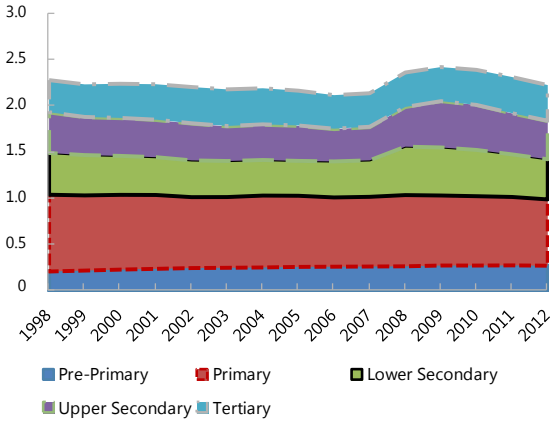
Sources: Eurostat; UNESCO; OECD PISA; and IMF staff calculations.

[1] P: primary; S: secondary; T: tertiary.

[2] Relative to full-time, full-year adult workers with tertiary education.

The improvement in education outcomes came at a high fiscal cost. Teachers benefit from a significant wage premium compared with other workers with tertiary education, while the EU average shows a large compensation gap for teachers. 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 (the EU average was 77.2 percent) (OECD 2014).

Figure 4.12. Evolution of Student Population in Portugal, 1998–2012
(Millions of students by level of education)

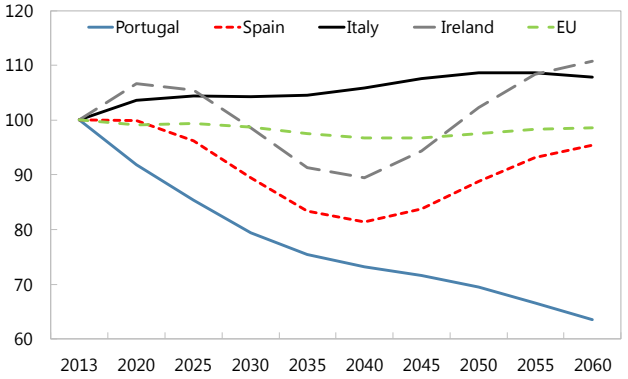


Source: OECD PISA.

Going forward, there is a need to better align the level of staffing with the shrinking school-age population. The overall number of students in the education system in Portugal fell by 2.4 percent between 1998 and 2012, and is projected to decline further. The number of students at the primary level is expected to shrink by about 20 percent during 2013–30 and by a further 15 percent during 2030–60, with a commensurate decline in the number of secondary students as they move through the system (IMF 2013). Student projections for Portugal differ significantly from comparators and the EU average, which are expected to see a limited decline (Spain, EU average) or a small increase in their students' population (Ireland, Italy). Further adjustment to the school network and to the number of teachers will be needed as a result, particularly in rural areas where the pace of population decline is much more accelerated.

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 (EC 2014), a program to reduce early dropout rates and increase the rate of education attainment, and a transfer of decision making to the local level (OECD 2015). Policy reforms could also include reducing grade repetition, better supporting disadvantaged students and

Figure 4.13. Number of Students
(Index: 2013=100)



Source: European Commission.

schools, increasing family choices, strengthening teacher training and evaluation, and further decentralizing decision making (OECD 2014).

Improving Management and Implementation of Fiscal Reforms

The IMF-supported program provided institutional setup to discuss and monitor fiscal reforms, and offered leverage to ensure effective implementation. A reform unit was created within the prime minister's office to centralize and manage policy discussions on structural reforms.[1] Various ad hoc committees were also put in place to carry out 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.

Institutionalizing the management of fiscal reforms will be essential in order 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 (Cangiano 2013), helping to ensure buy-in by civil servants, and reinforcing a reform culture within the public administration. Reliance on *ad hoc* and temporary commissions and working groups to prepare policy reforms should be reduced, in order to ensure continuity in the reform agenda and to promote horizontal coordination between services on a routine basis. A reform unit within the Ministry of Finance, 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 structure and staff of the Office of Planning, Strategy, Evaluation, and International Relations in the Ministry of Finance, and should rely heavily on the expertise and staff of core departments within the Ministry.

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 (Allen and others 2015). 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. The reorganization of the Budget Office at the Ministry of Finance 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

[1] Following the end of the Fund-supported program, this unit was dissolved, and its functions integrated in the Ministry of Finance.

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. Recent changes in fiscal reporting, fiscal forecasting, and budgeting go in the right direction (IMF 2014a/b), and the adoption of a new Budget Framework Law provides a blueprint for public sector reform in the years to come.

Conclusions

Portugal has achieved a sizable fiscal consolidation since 2010, but relied more than initially planned on revenue measures and investment spending reductions, as it proved difficult to rein in current expenditure. Public debt has continued to rise, meanwhile, partly reflecting the materialization of large contingent liabilities. The level of public indebtedness exceeded 130 percent of GDP at the end of 2014 and remains a significant vulnerability, with only a gradual decline projected over the medium term under current fiscal policies.

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.

The adoption of expenditure targets and institutional reforms would help underpin spending rationalization going forward. Identifying specific policy measures to rein in spending will be critical, with a focus on public sector wages and pensions. Targeted tax policy measures could also help to address bottlenecks to growth created by high corporate indebtedness and labor slack. While there is little fiscal space or need to further scale up public investment to support growth, education reform can have a positive impact on the skills composition of the labor force. Finally, in order to sustain reform momentum, the authorities need to institutionalize fiscal reform management and move toward a more policy-oriented approach. The implementation of the new Budget Framework Law offers a critical opportunity to move forward on this agenda over the medium term.

References

Allen, Richard, Yasemin Hurcan, Peter Murphy, Maximilien Queyranne, and Sami Ylaoutinen. 2015. "The Evolving Functions and Organization of Finance Ministries." IMF Working Paper 15/232, International Monetary Fund, Washington.

Cangiano, Marco. 2013. "Considerations on Public Sector Reforms in Portugal." Bank of Portugal Seminar 2013, pages 150-167. Lisbon.

Centeno, Mario, and Manuel Coutinho Pereira. 2005. "Wage Determination in General Government in Portugal." *Bank of Portugal Economic Bulletin*. Lisbon.

———, Michael Keen, and Masanori Orihara. 2015. "Taxation, Bank Leverage, and Financial Crisis." IMF Working Paper 13/48, International Monetary Fund, Washington.

European Commission (EC). 2014. "The Economic Adjustment Program for Portugal 2011–2014." Occasional Paper 202, Brussels.

European Commission (EC). 2015. "The 2015 Ageing Report. Economic and Budgetary Projections for the 28 EU Member States (2013–2060)". Luxembourg.

International Monetary Fund (IMF). 2010. "Evaluating Government Employment and Compensation." Technical Note, Washington.

———. 2011. "Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions." Staff Discussion Note 11/11, Washington.

———. 2013. "Rethinking the State—Selected Expenditure Reform Options." Country Report 13/6, Washington.

———. 2014c. "Fiscal Transparency Evaluation." Country Report 14/306, Washington.

———. 2014b. "Fiscal Policy and Income Inequality." Policy Paper, Washington.

———. 2014a. "Expenditure Rules: Effective Tools for Sound Fiscal Policy." *Fiscal Monitor*. Washington, April, Chapter 2.

———. 2014e. *World Economic Outlook*. Washington, October, Chapter 3.

———. 2014d. "Growth-Friendly Fiscal Policy." G20 Note. Washington.

Manuel Campos, Maria, and Mario Centeno. 2012. "Public-Private Wage Gaps in the Period prior to the Adoption of the Euro: an Application Based on Longitudinal Data." Bank of Portugal Working Paper. Lisbon.

Organisation for Economic Co-operation and Development (OECD). 2010. "Tax Policy Reform and Economic Growth." Tax Policy Studies. Paris.

———. 2013a. "PISA Results: Excellence through Equity: Giving Every Student the Chance to Succeed (Volume II)." Paris.

———. 2015. "Education Policy Outlook 2015, Portugal Country Snapshot."

5 Dealing with Private Debt Overhang: Corporate Debt Restructuring[1]

In the years preceding the economic crisis, the corporate sector experienced rapid debt accumulation. The stock of nonfinancial corporation (NFC) debt stands at 112.7 percent of gross domestic product (GDP) on a consolidated basis as of 2015:Q2, one of the largest in the EU. Excessive corporate leverage constrains profitability, resulting in higher nonperforming loans (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.

Introduction

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, albeit not a sufficient, condition for restoring financial intermediation and resuming investment. The authorities have taken steps to enhance the legal and institutional framework for corporate debt restructuring. Banks and nonfinancial corporations in Portugal, however, face incentives that prolong the deleveraging process. Therefore, in the absence of decisive policy action to reduce NPLs and the level of corporate debt, the economic recovery will remain subdued.

---

[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.

[2] The European Central Bank's current definition is 306 words long.

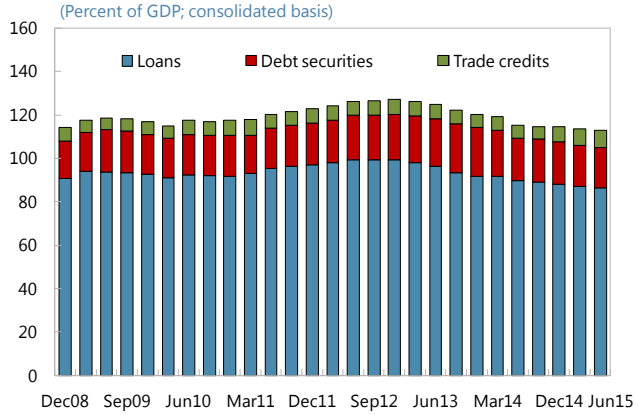
Portugal's Leveraging-Up Process

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 NFCs. By April 2008, credit to NFCs was growing at 14½ percent, and long-term borrowing (over five years) was growing even faster, at 21 percent.

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 5.1 for statistical issues). The small and medium enterprise (SME) segment accounted for the largest share, with about half of outstanding debt. Following a gradual decline beginning in mid-2013, the stock of NFC debt stands at €201 billion (112.7 percent of projected 2015 GDP) as of June 2015. However, the level of NFC debt is still high by EU standards.

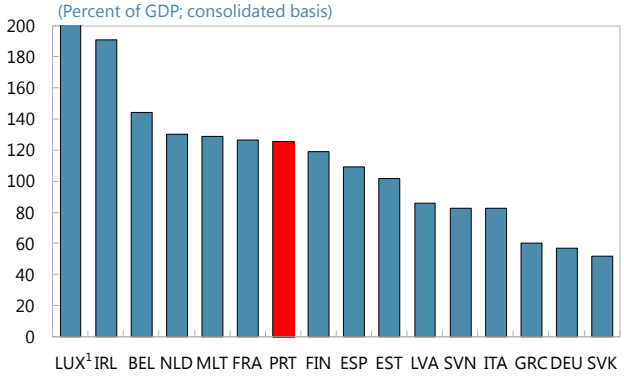
Portugal's firms remain highly leveraged; the leverage ratio was 200 percent as of June 2015.[3] High corporate leverage also continued to weigh on firms' capacity to repay their debt, as approximated by the low interest coverage ratio, just 3.5 as of end-March 2015.

Figure 5.1. Portugal: NFC Debt
(Percent of GDP; consolidated basis)



Source: Bank of Portugal.

Figure 5.2. NFC Debt to GDP, 2014:Q3
(Percent of GDP; consolidated basis)

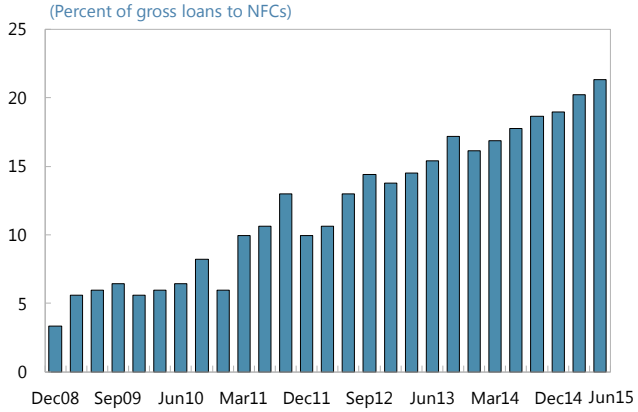


Source: Eurostat.
[1]Luxembourg, 400 percent.

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

The stock of corporate NPLs in Portugal is at its historical peak and still rising, further weighing down bank balance sheets. Nonperforming loans comprised 21.1 percent of loans to corporations in 2015:Q2, up from 3½ percent in 2008:Q4. 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 5.3. Portugal: Nonperforming Loans to NFCs
(Percent of gross loans to NFCs)



Source: Bank of Portugal.

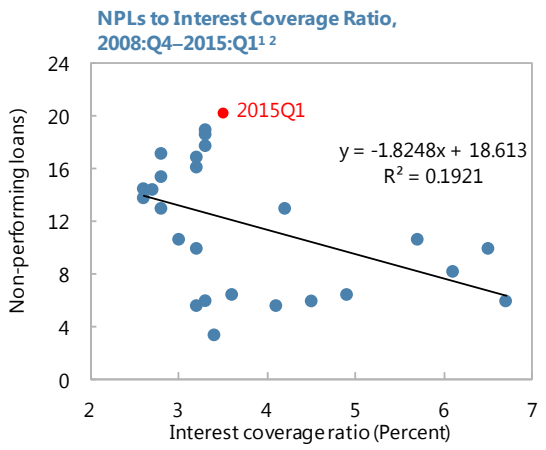
The Impact of Excessive Corporate Debt on the Real Economy

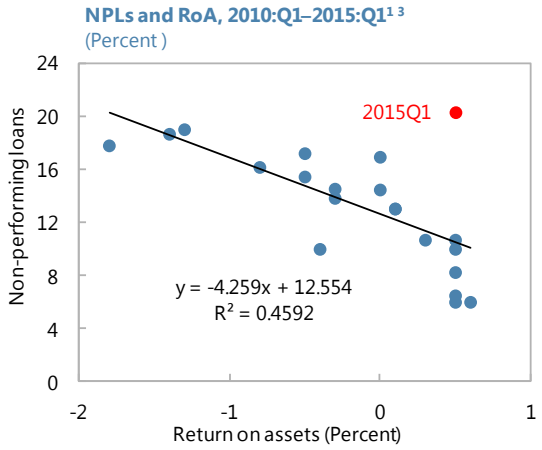
Excessive corporate leverage constrains profitability, resulting in higher NPLs and lower business investment (Figure 5.1). A declining interest rate coverage ratio and the high number of firms with overdue loans (31 percent as of January 2015) are indicative of the impact of the debt overhang on the corporate side. On the bank side, the continued rise of nonperforming loans impacts profitability and, in turn, new lending (see Bergthaler and others 2015).

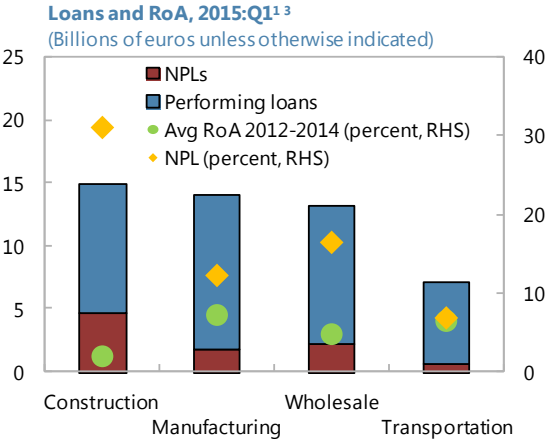
As the economic crisis unfolded, the interest coverage ratio declined (from 6.7 at end-2010 to 2.6 at end-2012), reflecting the impact of the corporate debt overhang on NFCs. Servicing high debt levels became an insurmountable challenge to many firms also confronting an unfavorable economic environment, and as a result NPLs rose sharply.

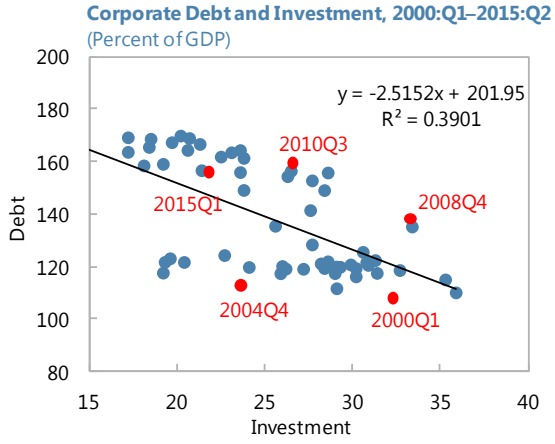
The growing stock of NPLs exacted a heavy toll on bank profitability. The deteriorating quality of banks' portfolios necessitated additional provisions and credit impairments, which in turn eroded banks' capital. Banks also increased their reliance on financial operations (such as trading of sovereign bonds) as a source of income. As done by banks with these characteristics elsewhere in Europe (Gambacorta and Marques-Ibanez 2011), Portuguese banks restricted the loan supply more strongly during the crisis period and credit growth turned negative.

Figure 5.4. Portugal: Key Indicators of Corporate Indebtedness, 2008–2015:Q1









Sources: Bank of Portugal; European Central Bank; and IMF staff estimates.

[1] NPLs are in percent of total loans.

[2] Interest coverage ratio is measured by earnings before interest, taxes, depreciation and amortization (EBITDA)/interest expenses.

[3] RoA are EBITDA/total assets.

In addition to being constrained, credit was misallocated. Despite its low profitability, the construction sector remains the largest recipient sector of bank loans, at about €14.6 billion as of end-June 2015 (17 percent of bank loans), while one-third of the loans to this sector are nonperforming.

The debt overhang also discourages investment, because (1) debt impacts the profitability of firms and hence their ability to obtain funding (supply side), and (2) 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 United States 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 or interest coverage ratio, is found to significantly reduce the firms' investment to capital ratio. In a broader context, Cecchetti, Mohanty, and Zampolli (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 and others (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.

Disincentives for Nonfinancial Corporations and Banks to Restructure Corporate Debt

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 to postpone provisions and debt write-offs until the economic recovery takes hold, despite eroding profitability. The corporate sector is dominated by small and medium enterprises (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 5.2). The introduction of streamlined and strengthened in- and out-of-court workouts was an important step toward 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.

- *Weak corporate governance*. The Portuguese corporate sector is dominated by small and medium enterprises, mostly operating in the nontradables 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 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 frequently used as collateral. If personal assets have been used to secure business loans, the incentive of business owners in highly indebted companies may be against retaining earnings.

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:[4]

- *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 Common Equity Tier 1 ratio was 11.6 percent as of June 2015, 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 write-offs. 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, and banks continue to wait even as their profitability continues to erode.

The Outlines of a Way Forward—Using the Toolkit at Hand

The authorities have taken some important steps to facilitate corporate debt restructuring (Boxes 5.2 and 5.4). The institutional and legal framework was enhanced, including (1) introducing a less favorable tax treatment of debt financing, (2) lowering the threshold for creditor approval in restructuring plans, (3) streamlining and strengthening in- and out-of-court workouts (PER and SIREVE, respectively), (4) providing a fresh start for entrepreneurs declaring bankruptcy, and (5) developing an early warning system.

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

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 encouraging banks to resolve NPLs, namely through write-offs; whereas activating the flow channel would require firm owners to retain more earnings or inject additional equity.
- Further tightening supervisory policies on provisioning and write-offs to speed NPL resolution. This could include (1) introducing new guidelines on provisioning to increase provisions for restructured loans (as in Spain or Malta); (2) tightening supervisory requirements to speed up write-offs, such as imposing higher capital charges or time limits on NPL write-offs; (3) facilitating the liquidation of nonviable firms by imposing stricter impairment triggers and discounted cash flow analysis to distinguish between viable and nonviable borrowers; and (4) a swifter recognition and exit of nonviable borrowers (such as in Sweden, where borrowers with a low interest coverage ratio and high leverage are quickly ushered into bankruptcy or liquidation).
- Strengthening 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,[5] and allowing public creditors with claims against distressed debtors to agree to similar restructuring treatment as other creditors (Box 5.3).[6]

[5] 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 disincentivized creditors to write off NPLs.

[6] 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 to cover their tax obligation, while the latter are presumed to have been recovered from the debtor's clients.

- Legal reforms to improve in- and out-of-court restructuring. To this end, 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—would help.

Box 5.1. 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 European System of National and Regional Accounts (ESA) 2010, causing some material changes. Changes to the breakdown of the economy by sector are due to an amended delineation between the financial and the nonfinancial corporate sectors, a more detailed breakdown of the financial sector and the new requirement for a breakdown between households and nonprofit 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 European Central Bank (ECB), and these 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 September 2015.

In this paper, corporate debt is measured using consolidated data on loans, debt securities, and trade credits to the nonfinancial corporate sector. Unlike nonconsolidated data, consolidated data nets out intragroup financing and financing between NFCs belonging to different groups, that is, the sector is viewed as a single entity. This is more relevant as it reflects trends that could impact economic activity. Regarding nonconsolidated 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, nonconsolidated 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 available only on a nonconsolidated basis (for example, for debt by sector or size of the firm).

Box 5.2. The Legal and Institutional Framework

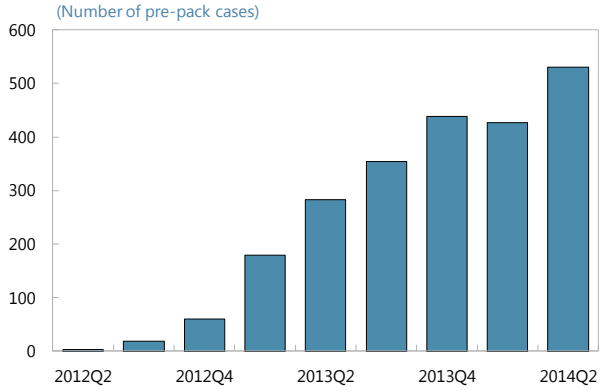
The introduction of streamlined and strengthened in- (that is, pre-pack[1]) and out-of-court workouts (PER, SIREVE, and out-of-court guidelines) was an important step toward putting in place an enhanced framework for rehabilitation and insolvency. However, a few issues continue to hamper the use to the full potential of the revised framework:

First, firms attempt restructuring too late. For instance, the prohibition for directors for trading insolvent is not enforced.[2]

Second, due to the significant increase in insolvency cases, there are important institutional constraints (for example, lack of enough specialized judges, lack of capacity of the Institute of Support to Small and Medium Enterprises and Innovation, and small number of qualified insolvency administrators).

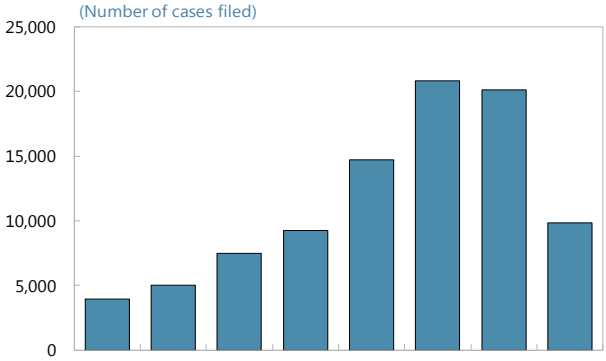
Third, due to legal constraints (for example, no principal write-off, ceiling of 150 installments), public creditors continue not to be able to participate meaningfully in the debtor's restructuring.

Figure 5.2.1. Portugal: In-Court Workouts
(Number of pre-pack cases)



Source: Ministry of Justice.

Figure 5.2.2. Portugal: Insolvency Cases
(Number of cases filed)



Sources: Ministry of Justice.

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

Finally, the revised legal and institutional framework cannot provide a systemic solution for processing the large numbers of SMEs quickly and equitably, and other mechanisms 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 (that is, involuntary imposition by a court of a reorganization plan over the objection of some classes of creditors)—while leveraging a speedy out-of-court negotiation process.

[2] In other words, there is no enforcement against directors who do not file for insolvency protection of the company even though the threshold for insolvency for such company is met.

Box 5.3. 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 (IMF 2011). 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 (IMF 2013b). 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 an IMF Fiscal Affairs Department (FAD) estimate (from €24 million in 2014). The 2014 CIT reform has further reduced the threshold to €1 million, in line with the FAD recommendation. In addition, the CIT rate cut adopted in 2014 (from 25 to 23 percent) will contribute to limit the debt bias 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 the debt bias across the board 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 for artificially high leverage, especially for financial institutions. With the ACE, normal equity returns are fully CIT-deductible and taxed only at an individual level, while returns above that are still taxed at both the corporate and the individual levels. 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).

_____

[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 5.4. 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 the National Mutual Guarantee System. An early warning system for distressed corporate debt implemented by the Banco de Portugal allows banks and their supervisor to identify overindebted firms in their loan book. 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 5.2). 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 to discourage corporations from becoming highly leveraged. 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.

Looking forward, 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 several 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 macroprudential toolkit.

Appendix I. 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.*

Appendix Table 5.1.1. Data Sources

Variable	Source
Nonfinancial corporation debt: loans, debt securities and trade credit, consolidated data	Bank of Portugal, financial accounts for Portugal, Eurostat for other European countries
GDP	INE, National Accounts
Growth rate of corporate loans	Bank of Portugal, Monetary and Financial Statistics
Investment rate of NFC	European Central Bank, National Accounts
Nonfinancial corporate debt: Debt outstanding to GDP, nonconsolidated data	European Central Bank, National Accounts
Nonperforming loans	Bank of Portugal, Statistical Bulletin
Interest rate coverage ratio	Bank of Portugal, Statistical Bulletin
Interest rate on NFC loans	Bank of Portugal, Monetary and Financial Statistics
Return on assets of NFC	Bank of Portugal, Statistical Bulletin
Return on assets of banks	Bank of Portugal, Portuguese Banking System: Latest Developments

References

Bergthaler, W., K. Kang, D. Monaghan, and Y. Liu. 2015. "Tackling Small and Medium Sized Problem Loans in Europe." Staff Discussion Note No. 15/4, International Monetary Fund, Washington.

Cecchetti, Stephen, M. S. Mohanty, and Fabrizio Zampolli. 2011. "The Real Effects of Debt." BIS Working Paper 352, Bank for International Settlements, Basel.

European Central Bank (ECB). 2014b. "Debt of Non-financial Corporations: Consolidated and Non-consolidated Measures." *Economic and Monetary Developments - Monthly Bulletin* page 50 (March). Frankfurt.

European Commission. 2013. "Refining the MIP Scoreboard." Commission Staff Working Document 790, November. Brussels.

European Investment Bank. 2015. "Unlocking Lending in Europe." Luxembourg.

L. Gambacorta, and D. Marques-Ibanez, 2011. "The Bank Lending Channel: Lessons from the Crisis." BIS Working Paper 345. Basel.

M. Goretti, and M. Souto. 2013. "Macro-Financial Implications of Corporate (De)Leveraging in the Euro Area Periphery." Working Paper 13/154, International Monetary Fund, Washington.

International Monetary Fund (IMF). 2011. "Tax Biases to Debt Finance: Assessing the Problem, Finding Solutions." Staff Discussion Note 11/11, International Monetary Fund, Washington.

———. 2013b. "Issues in Corporate Tax Reform." FAD Technical Assistance Report, International Monetary Fund, Washington.

Jaeger, A. 2003. "Corporate Balance Sheet Restructuring and Investment in the Euro Area." Working Paper 03/117, International Monetary Fund, Washington.

Jassaud, N., and K. Kang. 2015. "A Strategy for Developing a Market for Nonperforming Loans in Italy." Working Paper 15/24, International Monetary Fund, Washington.

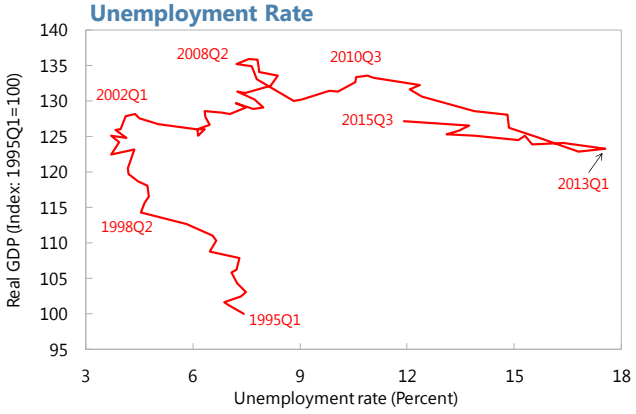
6 Generating Sustainable Growth: Institutional Change[1]

Minimizing rent-seeking and improving education will channel the country's resources to productive uses and enhance growth prospects.

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 postcrisis 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.

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.

Figure 6.1. Portugal: Real GDP and Unemployment Rate

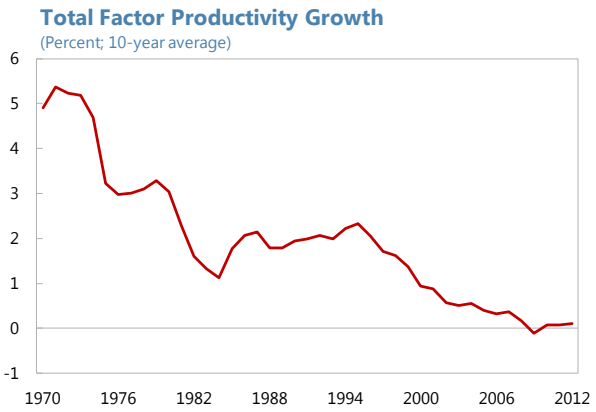


Sources: Haver Analytics; and IMF staff calculations.

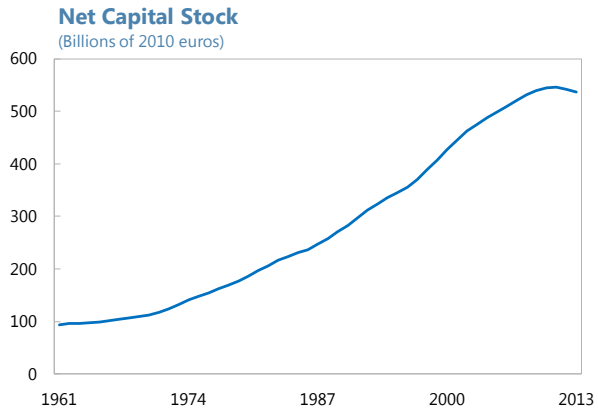
[1] Prepared by Dmitry Gershenson and Li Zeng.

[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).

Figure 6.2. Portugal: Productivity and Capital Stock



Sources: Haver Analytics; and IMF staff calculations.



Source: Haver Analytics.

Misallocation of resources has been stifling growth. Dias, Marques, and Richmond (2014) explain the sluggish growth by the inefficient allocation of resources, especially in the nontradables 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 nontradables sector.

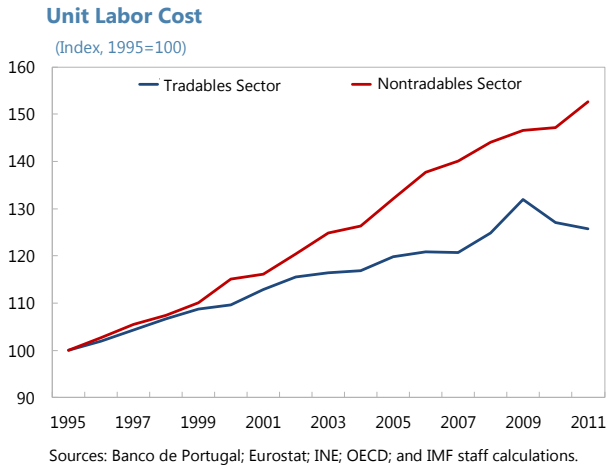
What allows a less productive sector to attract investment and even thrive? The nontradables sector is less productive than the tradables sector, but it offers opportunities for rent-seeking—activities wherein private return exceeds social return—due to the prevailing noncompetitive environment, such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

Breaking the nontradables 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).

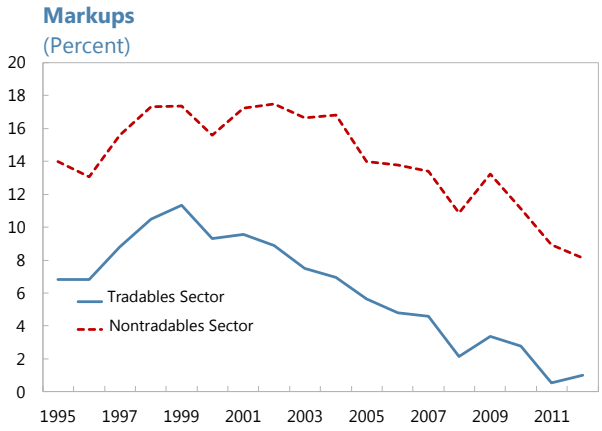
[3] There is extensive literature devoted to the social costs of rent-seeking, starting with the seminal work by Krueger (1974).

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

Figure 6.3. Tradable and Nontradable Sectors



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



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

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 tradables sector to encourage trade openness[5] and on further investment in education.

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 postcrisis recovery as the perfect time to proceed, since the available resources may be used to address concerns of those left behind by reforms. In other words, the time for reform is now.

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, the country would benefit from the creation of a self-perpetuating pro-reform coalition, which would make reforms irreversible.

To summarize, government policies must strengthen Portugal's tradables 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 tradables sector companies. Better education, with particular

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

emphasis on vocational training, allows the tradables sector companies to compete more successfully in the global economy and to exert more pro-reform pressure domestically.

References

Acemoglu, D., and J. Robinson. 2008. "Persistence of power, elites, and institutions." *American Economic Review* 98 (1): 267–293.

Amador, J., and C. Coimbra. 2007. "Characteristics of the Portuguese Economic Growth: What Has Been Missing?" Working Paper 8/2007, Banco de Portugal. Lisbon.

Amador, J., and A. Soares. 2012. "Competition in the Portuguese Economy: An Overview of Classical Indicators." Working Paper 8/2012, Banco de Portugal. Libon.

Dias, D., C. Marques, and C. Richmond. 2014. "Resource Allocation, Productivity and Growth in Portugal." *Banco de Portugal Economic Bulletin* (October): 61–72.

Drazen, A., and W. Easterly. 2001. "Do Crises Induce Reform? Simple Empirical Tests of Conventional Wisdom." *Economics and Politics* 13 (2): 129–57.

International Monetary Fund. 2005. "Building institutions." *World Economic Outlook*. Washington, September, 125–60.

National Institute of Statistics (INE). 2014. "Resident Population Projections 2012–2060." Press release, March 28. Lisbon.

Krueger, A. 1974. "The Political Economy of the Rent-Seeking Society." *American Economic Review* 64 (3): 291–303.

Levchenko, A. 2013. "International Trade and Institutional Change." *Journal of Law, Economics, and Organization* 29 (5): 1145–81.

Mukherji, R. 2008. "The Political Economy of India's Economic Reforms". *Asian Economic Policy Review* 3: 315–31.

North, D. 1991. "Institutions." *Journal of Economic Perspectives* 5 (1): 97–112.

Pina, A., and I. Abreu. 2012. "Portugal: Rebalancing the Economy and Returning to Growth Through Job Creation and Better Capital Allocation." Economic Department Working Paper 994, Organisation for Economic Co-operation and Development. Paris.

Rajan, R. 2004. "Why Are Structural Reforms So Difficult?" *Finance and Development*. June: 56-7.

Reis, R. 2013. "The Portuguese Slump and Crash and the Euro Crisis." *Brookings Papers on Economic Activity*. Spring: 143–193.

7 Generating Sustainable Growth: A Firm-Level Perspective on Structural Reforms[1]

Structural reforms were hoped to increase the scale and number of high-performing firms, which also tend to be exporting firms. Based on the results of a firm survey conducted by IMF staff, there is a perception that many reforms had at least some positive effects, but few reforms are seen as having had a significant impact. Firms' perceived urgency to revisit or step up reforms, especially in the public and financial sectors, likely reflects the fact that these reforms are critical for reducing high transaction costs, especially for the exporting firms. The limited perceived impact of public sector reforms likely reflects implementation capacity constraints.

Background

Membership in a monetary union and spillover considerations had severely constrained Portugal's macroeconomic toolbox, leaving structural reforms as the main available policy tool to mend its accumulated imbalances. 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]

There are several ways to assess the effectiveness of structural reforms. Using the reforms' impact on international competitiveness rankings is one popular—although hazardous—shortcut. 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 (for example, EC 2014). And there are micro-based approaches trying to link reforms to firm-level or household data (for example, OECD 2014a).

---

[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.

[2] See Chapter 2 for a discussion of macroeconomic context.

A firm-level perspective seems particularly apt for Portugal. Since joining the euro, the country 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 and others 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-level perspective holds significant promise and insights, as already demonstrated by OECD 2014a.

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 for why the survey responses suggest that most structural reforms should be revisited or stepped up (Section F).

Structural Reforms from a Firm-Level Perspective

From a firm-level perspective, structural reforms are expected to reduce costs. Much of a firm's success, especially in competitive markets, depends on managing 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 transaction costs tend to shape not only the organizational and contractual arrangements of production, but also the amount of goods and services that are produced and available on the market.

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, Aquilant, and Ottaviano 2012). And, in general, only higher-performing firms within any sector—whether by convention classified as tradables or nontradables sectors—tend to become persistent, successful exporters.

What would be key features of a structural reform with high impact on the firm's competitiveness and growth prospects? A high-impact reform (1) would lead to significant cost reductions in reform areas relevant from the point of view of the firm, (2) is underpinned by significant changes of formal or informal rules, and (3) 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.

Exporting Firms in Portugal: A Few Stylized Facts

Portugal has relatively few exporting firms, including in sectors conventionally associated with tradables activities. The extensive margin of exports, that is, the percentage of firms that are classified by the National Institute of Statistics (INE) as exporters 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 by international standards (see, for example, Navaretti and others 2011, Table 2.1). Puchal, Antràs, and Rodríguez (2010) report that the share of exporting manufacturing firms in the United States is 18 percent, notwithstanding a much larger domestic market.

Table 7.1. Portugal: Nonfinancial Firms—Extensive Margin of Exports,[1] 2010–12

(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 nonfinancial services	2.8	8.7	9.2	2.4
All sectors	**5.2**	**34.8**	**17.0**	**3.4**

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

[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.

The relatively low number of exporting firms reflects to an important extent a firm size distribution tilted toward smaller firms. Because 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 small and medium enterprises (SMEs), and micro firms in particular (text table).

Table 7.2. Portugal: Size Distribution of Nonfinancial Firms, 2010–12

(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 nonfinancial 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 SCIE.

Consistent with findings for other countries, exporting firms are associated with much better performance indicators compared with 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 ratios of debt to earnings before interest, taxes, depreciation and amortization (EBITDA; (text table). As regards firm leverage, however, other leverage indicators, such as the debt-to-equity ratio tend to be similar across firms. Persistent exporters also responded differently to the crisis compared with 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 7.1).

Table 7.3. Portugal: Performance Indicators for Manufacturing Firms, 2010–12

	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
Return on Equity (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 SCIE.

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

Box 7.1. Portugal—The 2010–12 Export Surge: Who Did It?

During 2010–12, nominal exports by manufacturing firms rose by about 19 percent (box table). This fact 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 (Return on equities 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 (Return on equities of this firm group turned negative during 2010–12).

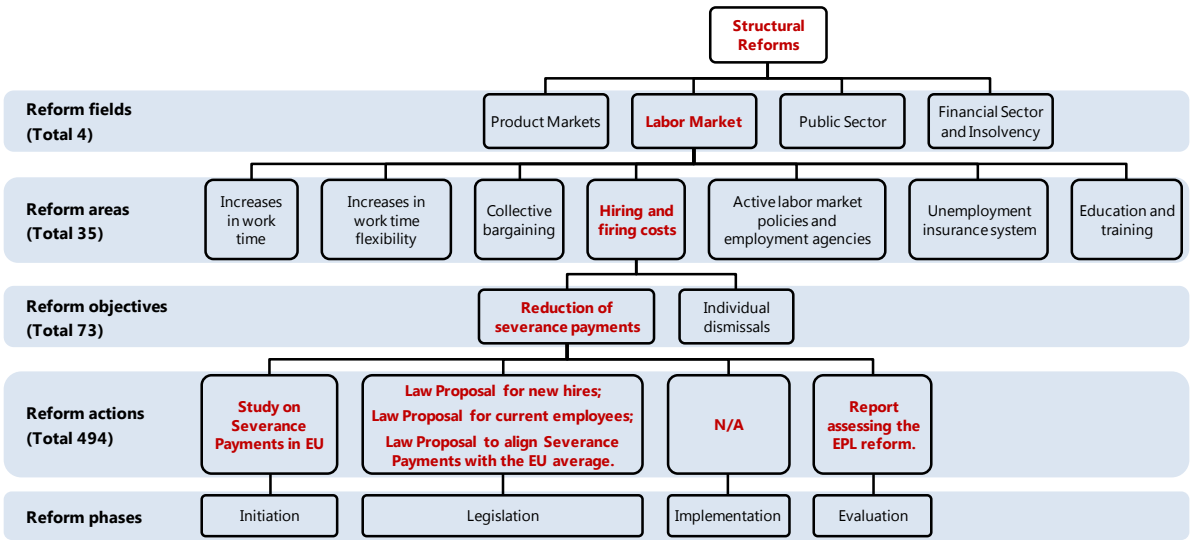
However, there was a considerable shift underlying the net export performance of the group of other firms. The firm-level data suggest that firms that were newly established since 2010 and which were exporting in 2012 made a contribution of €0.2 billion to the €5.2 billion export increase during 2010–12. 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.

Table 7.1.1. Portugal. Exports and Production of Manufacturing Firms, 2010–12

Changes 2010–12	Exports	Domestic sales	Value added	Employment
All firms				
Billions of euros	5.2	–2.0	–1.8	
Percent	18.9	–4.2	–10.2	–6.4
Persistent exporters				
Billions of euros	4.7	–0.1	–0.4	
Percent	19.1	–0.4	–4.4	1.8
Other firms				
Billions of 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 SCIE.

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



Source: IMF staff.

Program's Structural Reform Agenda

Starting in the early 2000s, as growth began to disappoint relative to expectations, the need to implement more and deeper structural reforms became a constant theme of Portugal's economic policy discussions. As amply documented before the crisis in successive *OECD Economic Surveys*, policy advice typically called for education 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 subsequently integrated into the design of the adjustment program.

The structural reform agenda of the adjustment program's focused on four reform fields: (1) product market reforms, (2) labor market reforms, (3) public sector reforms, and (4) 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 there were a potentially large number of reform actions. These reform actions were defined as specific commitments in the program documents to take steps to move reforms forward along the following four reform phases: (1) to initiate, (2) to legislate, (3) to implement, or (4) to evaluate structural reforms.
On staff's count using the structural reform nomenclature set out in the text chart, 494 structural reform actions were taken to achieve 73 reform objectives. Breaking down the number of reform actions by fields, about half of the measures focused on the public sector, about a third on product markets, and the remaining actions were split between labor market reforms and financial sector and insolvency reforms (text table). Further breaking down the number of reform actions by phases, about half of the reform actions were initiating or legislating, while about a third of the actions focused on implementation.

Table 7.4. 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**

Source: IMF staff.

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 7.1). On the other hand, insolvency reforms and reforms in the fields of public sector and financial sector can often be associated with reducing transaction costs. Some of the reforms are framed as having aimed at reducing both production and transaction costs.

The sheer range and high number of reform objectives and actions raise the question of why the reforms in Table 7.1 were picked and why others were not. 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 approach is

to try to pick a limited number of reforms that address the most binding bottlenecks to competitiveness or growth (Hausmann, Pritchet, and Rodrik 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 altogether controversial among participants. Moreover, when, how, and what decisions are made can depend to a large extent on whether good opportunities arise to connect solutions and problems from a large, preexisting 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, Pritchet, and Rodrik (2005).

Effectiveness of Structural Reforms: Firm Survey Evidence

Survey design. The survey was sent to nonfinancial 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, urgent need). Respondents also had the option for "no answer" in case they felt there was not enough information to provide an assessment. In addition, respondents had the option to provide written suggestions on the impact of reforms or the urgency of more reforms.

Survey responses. The response rate to the survey was 17.4 percent, which appears to be appropriate 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

[4] Cohen, March, and Olsen (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, that is, SMEs with strong performance characteristics.

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 from –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 Reforms

Overall, the survey scores suggest that many reforms are perceived as 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 regarding product market reforms (Table 7.1). The majority of public and financial sector reforms were 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.

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.

Most public and financial sector reforms received similar, generally positive, albeit low scores. The highest scoring public sector reforms deal with 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 7.5. Portugal: 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

Sources: Firm survey; and IMF staff estimates.

[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 between –0.5 and 0, light green to a value between 0 and 0.5, and dark green to a value above 0.5.

Perceived Urgency of More Structural Reforms

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 administration at both the central and local levels, to increase the effectiveness of the various courts of the justice system, to improve payment 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.

Exporting firms also saw a pressing case for more reforms of product and labor markets. As regards product markets, exporting firms urged additional reform effort in the areas of energy, road pricing, costs of railways, and enforcement of competition. As regards the labor market, exporters also perceived a relatively strong need to reform hiring and firing costs and to increase 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.

Interpreting the Firm Survey Results

Safeguarding against Possible Objections to Using Firm Surveys to Assess the Impact of Structural Reforms

It may be argued that firm surveys do not necessarily 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 assign the blame for problems that are due to factors internal to the firm—for example, lack of managerial skills—to lack of progress on structural reforms. To mitigate against 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, may nevertheless 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.

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 behavioral patterns on the part 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 7.6. Portugal: 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

Sources: Firm survey; and IMF staff estimates.

[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 between –0.5 and 0, light green to a value between 0 and 0.5, and dark green to a value above 0.5.

Third, firms may have difficulties disentangling the effects of the economic crisis from the impact of the reforms. Firms may not see the payoffs of reforms because low demand and other cyclical effects of the recession are masking the payoffs. 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

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 (depth factor). And third, even when 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 of as being linked multiplicatively:

$$\text{Reform Impact} = \text{Bottleneck Factor} \times \text{Depth Factor} \times \text{Capacity Factor}.$$

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

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 key role in some areas, including energy policy, or reducing the cost of

using ports (see Box 7.2). But, in general, the lack of reform depth is likely more of a factor explaining the relatively low scores for product market reforms.

Box 7.2. Portugal: Reducing Port User Cost: An Implementation Game in Progress

The port reform is of major importance for the competitiveness of firms. In 2013, the fraction of Portuguese exports shipped via ports was 58 percent by weight and 37 percent by value. For some exporters, port user costs 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: (1) the adoption of a port labor law in February 2013, (2) elimination of the TUP Cargo fee in January 2014, (3) the start of the renegotiations of port concessions in April 2014, and (4) the publication of the transport regulator bylaws in May 2014.

According to estimates by the authorities, a 16 percent reduction in the port invoice costs was achieved during the period 2011–13. However, this estimate is contested, and a private sector study pointed to a decline in user cost of only 2 percent. Notwithstanding the large gap between the two estimates, both are far from the original objective to reduce user costs by 25–30 percent. The firm survey responses also suggest that firms do not see major payoffs 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 be captured by other players rather than the intended beneficiaries, especially the exporting firms.
- *Lack of incentives*: The terms of the port concessions must provide the right incentives to both port authorities and concession operators. However, the renegotiations of concessions are still ongoing, with only one closed.

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 depth 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.

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 this option was abandoned about a year and a half into the program (Box 7.3).

Box 7.3. Portugal: 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 the value-added tax (Memorandum of Economic and Financial Policies [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:

- *Large magnitude of the required adjustment*: To have a significant impact on external competitiveness, large cuts in employers' contributions 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 tradables sector firms was clearly at odds with EU competition rules.
- *Sticky nontradables prices*: A key assumption for making a fiscal devaluation work was that the cuts in employers' contributions would lead to reductions in nontradables prices that would in turn lead to a reduction in intermediate input costs of the tradables sector. Given that high nontradables prices were the result of uncompetitive structures in the first place, this was an assumption that was seen as too strong by many participants in the debate on fiscal devaluation.
- *Political economy blowback*: Perhaps most surprising from the point of view of many observers was the fact 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

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 administration 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).

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 one of the respondents noted:

"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 7.7. 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); improve the licensing regimes by changing its paradigm from ex-ante approach to ex-post compliance verification by the administration and reduction of approval timings; simplify the spatial planning system and strengthen the role of state to avoid irrational expansion of urban perimeters and foster urban renewal.	Transaction costs / information Transaction costs / decision-making
Energy costs (4 objectives; 44 actions)	
Liberalize 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; promote competition in energy markets and to further integrate the Iberian markets (Iberian Electricity Market [MIBEL] and Iberian Market of Natural Gas [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 Public Private Partnership (PPPs) road costs.	Production costs / unit intermediate input costs
Cost of using railways (1 objective; 9 actions)	
Strengthen competition in railway sector and attrack 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 percent.	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 companies.	Production costs / unit intermediate input costs
Housing market (3 objectives; 12 actions)	
Boost rental market by revitalizing city centers; foster labor mobility; reduce incentives for household to accumulate 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 the firm 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 unemployment insurance system to reduce the risk of long-term unemployment, extend eligibility to self-employed.	Production costs/Unit labor costs
Education and training (2 objectives; 15 actions)	
Improve the quality of secondary education, also addressing early school drop out rates; and improve vocational education and training to raise human capital quality and facilitate labor market matching.	Production costs/unit labor costs Externalities

Table 7.7. 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 tax collection; modernize the tax revenue services through internal reorganization of the service and strengthening of its operational capacity; review the tax regimes at corporate and personal level, in order to promote simplification at compliance level, and to promote competitiveness of the firms in Portugal.	Production costs / unit capital costs Transaction costs / decision-making
VAT refund (1 objective; 6 actions)	
Improve value added tax (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 state-owned enterprises (SOEs), especially hospital 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; contain 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)	
Reduce the number of pending court cases (backlog); increase efficiency by restructuring the court system, and adopt new court management models; streamline and speed up civil case processing in the courts; create of specialized courts.	Production costs / unit labor costs Transaction costs / enforcement
Effectiveness of tax courts (1 objective; 2 actions)	
Reduce the number of pending cases in the tax courts (backlog).	Transaction costs / enforcement
Effectiveness of alternatives to litigation (1 objective; 4 actions)	
Create and strengthen the means of alternative dispute resolution 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 pharmaceuticals to 1 percent of GDP in 2013 (in line withthe EU average); increase 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)	
DeleveragE the Portuguese banks in an orderly fashion within the Eurosystem framework; achieve adequate capitalization of banks and monitor bank solvency; maintain liquidity in the banking sector; bring closure to Portuguese Bank of Business (BPN) and streamline Caixa Geral de Depósitos (CGD); strengthen banking regulation & supervision; promote financial stability and protect depositors.	Production costs / unit capital costs Transaction costs / decision-making

Source: IMF staff.

Appendix I. Survey Questions

For 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.

Product Market Reforms

Licensing environment. For example: simplification and changing of the licensing paradigm from ex 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: lower mobile termination rates; new telecom regulators bylaws (National Communications Authority [ANACOM]); privatization of the national postal service of Portugal (CTT).

Cost of road use. For example: renegotiation of the existing roads public private partnership (PPPs).

Cost of using railway. For example: reduce operational costs of transport SOEs (for example, the national railroad [REFER] and *Comboios Portugal* [CP]); review and render a more effective yield management on long-distance passenger ticket prices.

Costs of using ports. For example: eliminate the port usage fee (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 entering the market for new companies and service providers (for example, real estate brokerage and travel agencies).

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

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 (a policy that provides a bank of hours in which the employer pools sick days, vacation days, and personal days that allows employees to use as the need or desire arises); reduce overtime pay.

Collective bargaining. For example: revise 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 (Institute of Employment and Training [IEFP]).

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 SOE operational results.

Privatization program. For example: privatization program with the disposal of shares in BNP, ANA, CTT, EDP, REN, Galp Energia, and 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; 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' bylaws.

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

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 t firms in Portugal.

References

Alexandre, Fernando, Pedro Bação, Pedro Lains, Manuel Martins, Miguel Portela, and Marta Simões. 2014. "A Economia Portuguesa na União Europeia: 1986–2010." *Actual Editora*. Lisbon.

Altomonte, Carlo, Tommaso Aquilant, and Gianmarco Ottaviano. 2012. "The Triggers of Competitiveness: The EFIGE Cross-Country Report." *Bruegel Blueprint Series* 17.

Banco de Portugal, Economics and Research Department. 2009. "The Portuguese Economy in the Context of Economic, Financial and Monetary Integration." Banco de Portugal Publishing. Lisbon.

Bento, Vítor. 2010. "O Nó Cego da Economia. Como resolver o principal bloqueio do crescimento económico." *Bnomics*. Lisbon.

Bernard, Andrew, and Bradford Jensen. 2004. "Why Some Firms Export." *Review of Economics and Statistics* 86 (2): 561-569.

Bouis, Romain, Orsetta Causa, Lilas Demmou, Romain Duval, and Aleksandra Zdzienicka. 2012. "The Short-Term Effects of Structural Reforms: An Empirical Analysis." OECD Economics Department Working Papers, No. 949, OECD Publishing.

Cohen, Michael D., James G. March, and Johan P. Olsen. 1972. "A Garbage Can Model of Organizational Choice." *Administrative Science Quarterly* 17 (1): 1–25.

European Commission. 2014. "Market Reforms at Work in Italy, Spain, Portugal and Greece." *European Economy 5/2014*. Brussels.

Harberger, Arnold C. 1998. "A Vision of the Growth Process." *American Economic Review* 88 (1): 1–32.

Hausmann, Ricardo, Lant Pritchet, and Dani Rodrik. 2005. "Getting the Diagnosis Right." *Finance and Development* 43 (1): 12.

Navaretti, Giorgio, Matteo Bugamelli, Fabiano Schivardi, Carlo Altomonte, Daniel Horgos, and Daniela Maggioni. 2011. "The Global Operations of European Firms – The Second EFIGE Policy Report." *Bruegel Blueprint Series,* Vol. 12.

Organisation for Economic Co-operation and Development. 2014a. "OECD Economic Surveys: Portugal." OECD Publishing. Paris.

———. 2014b. "The 2012 Labour Market Reform in Spain: A Preliminary Assessment." OECD Publishing. Paris.

Puchal, Pol Antràs, and Diego Rodríguez Rodríguez. 2010. "Firms in International Trade (With an Application to Spain)." Series Invited Lecture. Harvard University Invited Lecture Series.