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# Saving Greece once again: Have we Reached the Root of the Crisis?

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**Summary:** In 2010, the first economic adjustment program began offering a blueprint for economic recovery and a feasible way for Greece to emerge from the crisis. The authors show that Greece neither overcame its structural weaknesses nor developed export industries as a driver of growth in the course of reforms, and they conclude that Greece's sectoral structures still mirror a low level of industrial development as well as a service industry with a below-average growth performance compared to other EU countries. Greece's composition of exports exhibits a limited growth and value-added potential, and is similar to the export patterns of low-income countries due to a focus on raw materials and labor-intensive goods. The analysis also shows that without significant growth, the Greek debt will remain unsustainable. A haircut or a phasing out of the debt burden can only complement supply-oriented structural reforms, however. The reform agenda of August 2015 is a new attempt to implement the reforms that the creditors have been waiting on for the past five years.

→ JEL Classification: F15, F43, H63

→ Keywords: Structural change, foreign trade, unsustainable sovereign debt, structural reforms

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## I **A new attempt to overcome the Greek crisis**

In August 2015, after two elections and a month-long struggle over debt relief, fresh money, and the future of the reform process, the EU Commission signed a Memorandum of Understanding for a three-year ESM program on behalf of the euro countries and the Tsipras government. A Grexit, which had already been considered by the creditors (see *Frankfurter Allgemeine Zeitung* 2015), is no longer being discussed as a policy option, and the same is true for a generous haircut claimed by the Greek party. However, it is crucial for the future of the political process that the Greek government does not try to suspend the reform process again and return to welfare and demand policies.

The reform stalemate has been worsening the economic climate since the end of last year, causing a fall in confidence on the part of domestic and foreign investors and fostering a large-scale capital outflow. The new Greek government needs to restore confidence in the reform process and accelerate the implementation of reforms that are still pending after so much time has been lost. Greek policymakers should be aware that reforms are necessary to reduce the structural deficiencies that continue to plague the Greek economy. In the past, these deficiencies prevented the Greek economy from attaining a path of sustainable growth that will also be needed to reduce the debt burden by Greece's own efforts. But after five years of failed bailout programs, the question arises whether the new reform agenda will be the final act of the Greek tragedy.

Five years ago, the first economic adjustment program was already offering a blueprint for economic recovery and a feasible way out of the crisis. The Papandreou government agreed to a three-year program that was designed to restore fiscal stability, reduce domestic demand, and increase supply and competitiveness. According to the program, cuts in benefits and wages as well as structural reforms should pave the path to an investment- and export-led growth model in Greece (IMF 2010: 8). This program reflected the idea of developing trade as a driver for long-term innovation and growth (e.g. Grossman and Helpman 1991: 237–257). The globalization process has created lots of opportunities to follow such a trade and growth strategy. In addition, the Greek economy, being part of the EU Common Market, could benefit from the openness of the European markets. But according to Krueger (1984, 1998: 1519–1520), for example, trade liberalization has to go along with liberal domestic economic policies, which promote structural change, competitiveness, and export capabilities.

Against this backdrop, our paper is organized as follows: In Chapter 2 we analyze whether the structural deficiencies of the Greek economy, which have been impeding a substantial catching-up beyond demand-driven boom periods, are still prevalent. In Chapter 3, we complement the structural analysis by examining what is keeping exports from becoming the driver of Greek growth. In Chapter 4, we explain why growth and economic reforms are also essential to achieving a sustainable level of public debt in Greece. In Chapter 5, we evaluate the suitability and feasibility of the commitments to structural reforms that are tied to the third bailout program and part of the Memorandum of Understanding from August 2015. Finally, in Chapter 6 we ultimately assess whether the new attempt to overcome the Greek crisis is more promising than are the failed attempts from before.

## 2 Structural weaknesses and insufficient productivity

When compared to other European countries, Greece suffers from both severe structural weaknesses as well as a low productivity across the various sectors of its economy—and both phenomena are not new. Despite minor adjustments, Greece’s basic structural problems seem to be more or less persistent since the country joined, in 1981, what was at the time known as the “European Community” (see Laaser 1997: 90–98, 108–111, 115–118).

In an international comparison, manufacturing is usually a source of higher incomes for countries with a high share of manufacturing value added and employment. Although the share of manufacturing in value added and employment is shrinking globally, this sector has retained its position as a generator of income and as an important driver of economic growth (Manyika et al. 2012). According to the complexity theory put forward by Hausmann and Hidalgo, manufacturing still serves as the pivotal device for R&D, innovation, and economic growth.<sup>1</sup> Both authors emphasize that economic complexity—meaning the great variety of knowledge, skills, and capabilities available within a given country—is directly embodied in the manufacturing activities that occur in the course of producing individual commodities. The more a country is able to acquire these kinds of productive capabilities, the better its opportunities for future prosperity (Hausmann and Hidalgo 2012: 13). This view is corroborated by Tassef (2014: 28–29), who concludes that: (i) High-paying jobs are found primarily in manufacturing, particularly where R&D is performed, and that manufacturing (ii) still dominates exports; (iii) generates substantial forward- and backward-linking demand for high-income services; and (iv) provides high incomes when linked to high-tech activities.

The actual size of manufacturing in Greece gives the impression, however, that this sector is barely there: Only 8.5 percent of Greek value added was generated by manufacturing activities in 2014. The European average in the same period was—at more than 15 percent—nearly twice that share, while the figure in highly industrialized Germany was actually over 22 percent (Figure 1).

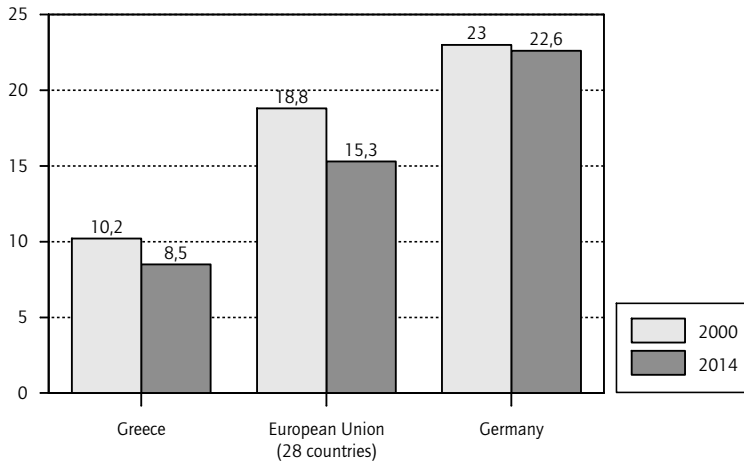
Around the year 2000, Greece’s manufacturing sector was not much larger than it is today, contributing 10 percent to the gross value added. Since then, this share has shrunk a little bit less than has the same share in the EU-28 as a whole, while in heavily industrialized Germany, the manufacturing share has remained nearly constant. The insufficiency in the size of manufacturing in Greece that has yet to be overcome creates some kind of “*déjà-vu*” experience to an observer: The actual findings resemble the situation in the 1970s, when Greece still had a much smaller manufacturing sector (19 percent) than did the South European applicants Spain and Portugal (both 27 percent), and the situation after EU accession, when industrialization in Greece hardly evolved at all (Laaser 1997: 90, 109, 116).

A breakdown of the remaining Greek manufacturing activities reveals that labor-intensive industries account for about two-thirds of manufacturing jobs; important investment goods industries, such as the automotive industry, mechanical engineering, and electrical engineering, only play a minor role. The Greek industry lacks a considerable productive capacity of investment goods

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<sup>1</sup> See Hidalgo and Hausmann (2009) and Hausmann and Hidalgo (2011a, 2011b, 2012) for a detailed elaboration of their theory. A brief summary of their reasoning as well as an evaluation of the consequences for future manufacturing can be found in Moavenzadeh et al. (2012).

Figure 1

**Share of industry in Greece compared to EU-28 in 2014<sup>1</sup>**

1 In per cent of aggregate gross value added.

Source: Eurostat (2015a): Database, Economy and finance, Annual national accounts, Basic breakdowns of main GDP aggregates and employment, Gross value added and income by A\*10 industry breakdowns [nama\_10\_a10],

with a high value-added and a demand for highly qualified workers (Schrader, Benček, and Laaser 2013: 9–11).

With respect to service industries—which make up the largest share of the Greek economy at 83 percent of value added, a figure that is much larger than it is in the EU-28 or in Germany<sup>2</sup>—the situation does not seem to be much better. The 2014 upswing in tourism once again aggravated an old weakness of the Greek service sector, namely that low-income activities such as retail trade and tourism, which comprise jobs with low qualification requirements, account for more than a quarter of Greek value added. Along with activities connected to the public sector and to real estate—which each accounts for almost one-fifth of total value added—such activities dominate Greek service industries (see Schrader, Benček and Laaser 2015: 4–6). By contrast, activities in business and production-related services account for less than 5 percent of Greek value added, which is less than half the value in the EU-28 or in Germany.

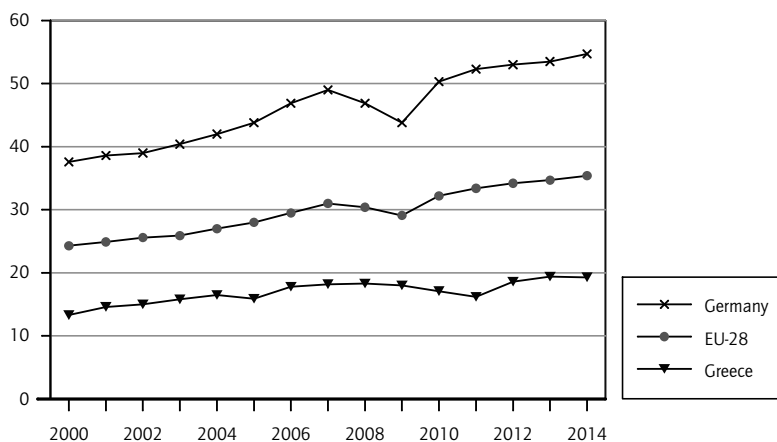
The breakdown of the Greek value added already suggests that the country also suffers from insufficient productivity. Comparing Greece's labor productivity in manufacturing with the average of the EU-28 or Germany reveals that they are worlds apart (Figure 2).

In 2014, the Greek manufacturing productivity of 19.30 euro/hour did not account for more than 55 percent of the pertinent value in the EU-28. Since 2000, this relation has fluctuated somewhat

2 Numerical data in this paragraph are calculated from the data source of Figure 1. In 2014, service industries accounted for 74 percent of value added in the EU-28, and for 69 percent in Germany.

Figure 2

### Productivity in Greece's manufacturing sector compared to that of the EU-28 and Germany, 2000–2014<sup>1</sup>



<sup>1</sup> Value added in Euro, current prices, per working hour in manufacturing (Nace\_R2 sect. C).

Source: Eurostat (2015a). Database, Economy and finance, Annual national accounts, Basic breakdowns of main GDP aggregates and employment, Gross value added and income by A\*10 industry breakdowns [nama\_10\_a10], <http://ec.europa.eu/eurostat/data/database>; Eurostat (2015b). Database, Economy and finance, Annual national accounts, Basic breakdowns of main GDP aggregates and employment, Employment by A\*10 industry breakdowns [nama\_10\_a10\_e], <http://ec.europa.eu/eurostat/data/database>, own calculation and compilation.

in between 49 percent to 63 percent, but was virtually the same in the first and last reporting years. With respect to Germany, the relation did not exceed the threshold of one-third for the whole period very much, with the only exception being the crisis years of 2008 and 2009.

It can be concluded that Greece's sectoral structures mirror a low level of industrial development, as well as a service industry with a below-average growth performance in comparison to other EU countries. This situation has not substantially changed since Greece joined the Common Market in 1981. After accession, the country did not make use of the vast opportunities that the membership in the Common Market offers for penetrating other member states' markets. That, however, would have required substantial structural change—which did not take place. The need for structural change is also confirmed by the Hausmann-Hidalgo complexity model: At the beginning of the financial crisis in 2008, Greece only ranked 53rd on the economic complexity index scale, which depicts and ranks the amount of productive knowledge of countries around the world (Hausmann and Hidalgo 2011b: 62–66). This result reflects a “lost era” in Greece, with the consequence that a “big push forward” is less likely following the observation by Hausmann and Hidalgo (2011a: 340) for those countries which face the greatest scarcity of productive knowledge.

### 3 Can exports be the driver of Greek growth?

In their overview on trade and growth links in theory and evidence, Baldwin and Seghezza (1998: 379–381) find that trade affects growth via investment. In the case of a developing country like

Greece, it cannot be expected that openness encourage investments in product and process innovations, which is assumed in R&D based endogenous growth models. Rather, investment in industrial locations of production should have been expected, especially in the course of European integration. But Baldwin and Seghezza (1998: 390–396) empirically show that EU membership-induced, investment-led growth could not be observed for Greece as it could be for Ireland, Portugal, and Spain. According to their explanation, the effects of EU integration in Greece were not strong enough to overcome poor macroeconomic management and market rigidities.

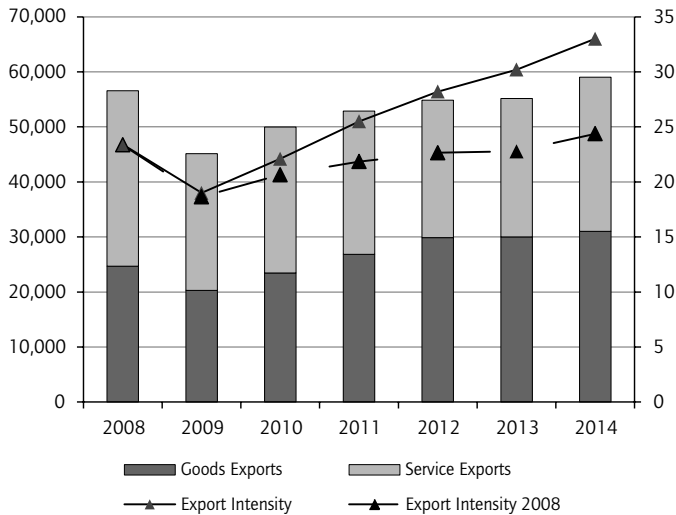
The financial and economic crisis of 2008 meant the end of the demand-driven economic growth in Greece. However, exports did not become a driver of economic growth. With respect to trade in goods and services according to the national accounts statistics, it can be observed that from the beginning of the crisis in 2008 until the end of 2014, exports of goods and services recovered slightly, with an increase of 4.3 percent. At the same time, imports declined significantly, by about 12 percent (Eurostat 2015c). This correction of trade imbalances was accompanied by a shrinking current account deficit: from 35 billion euro in 2008 to about 4 billion euro in 2014, according to the Greek balance of payment statistics based on ELSTAT's trade statistics (Bank of Greece 2015). This correction of imbalances was primarily a reflex that had emerged from the crisis—a passive rehabilitation of the trade balance through shrinking imports due to a loss of purchasing power and remitted interest rate payments as well as increasing EU transfers.

In the past, Greece lost the chance to develop export-oriented industries. Accordingly, the Greek economy fares only slightly better than do the big EU economies like Italy, France, and the UK with respect to export intensity—exports of goods and services in percent of GDP—which amounted to 33 percent in 2014 (Figure 3). But Greece, as a country with only small markets, should be expected to trade much more intensively than these big economies would be. Therefore, more appropriate benchmark countries would be Hungary, Slovakia, and Ireland, which exhibit export intensities at a range between 89 and 114 percent—far beyond the Greek level. Moreover, Greece's rising export intensity did not signal an unprecedented export strength, but have resulted from the shrinking GDP since 2009. If the denominator for calculating the export intensity for the whole period from 2008 to 2014 is the GDP of 2008, the Greek export intensity attained merely 24 percent in 2014.

An investigation of Greece's past export performance makes it clear that the export of services was traditionally a Greek strength, accounting for an export share of about 56 percent in 2008 based on national accounts statistics (Figure 3). But until 2014, the export of services declined by 12 percent, and the service share only accounted for less than 48 percent. At least at the current edge, service exports increased again by 11.5 percent because the export of travel services remained on a growth path, and transportation also gathered momentum according to the balance of payments statistics (Bank of Greece 2015).

But in general, the focus on travel and transportation services brings along some disadvantages for the Greek recovery process. Sea transport, which dominates the export of transportation services, strongly depends on the global business cycle and cannot contribute crucially to a reduction of mass unemployment (IMF 2013: 22–24). The again-rising export of touristic services—benefiting from lower prices in the course of internal depreciation and tax cuts—has high potential, but due to a lack of investment, Greece's tourism industry is less competitive with respect to quality than are those of other Mediterranean countries, and it mainly offers low-wage jobs (McKinsey

Figure 3

**Greek export performance, 2008–2014<sup>1</sup>**

<sup>1</sup> Goods and service exports in million euro; export intensity as total export in percent of GDP, export intensity 2008 as total export in percent of GDP of 2008.

Source: Eurostat (2015c). Statistics: National accounts, GDP and main components (output, expenditure and income) [nama\_10\_gdp]. <http://ec.europa.eu/eurostat/web/national-accounts/data/database>, Download 15.10.2015.

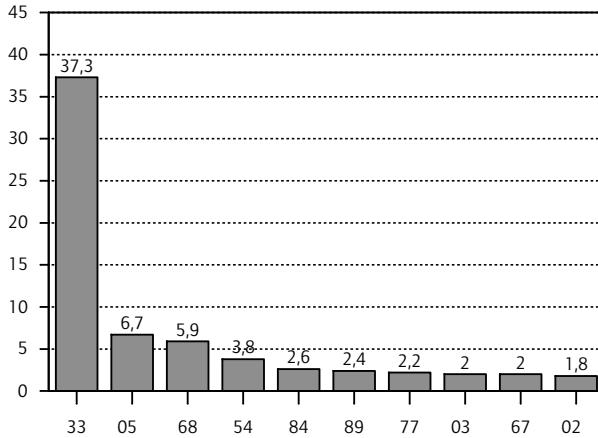
2011: 39–43). However, business-related services, which demand skilled labor and provide high earning potentials in return, are only exported to a minor degree.

In contrast to the gradual recovery of service exports, the export of goods increased rapidly, by 25 percent, between 2008 and 2014 (Figure 3). At first glance, these figures suggest that a new Greek business model is taking shape that is opening up the prospect of export-led growth in the near future. But a sectoral analysis reveals some deficiencies of Greece's commodity exports, which can be illustrated by the top ten export groups in 2014 (Figure 4). This ranking is dominated by the export of petroleum and products thereof, with a share of close to 40 percent—even though Greece is not an oil-producing, but rather an oil-importing country. Thus it is no surprise that oil imports dominate the Greek commodity import ranking. Far behind the exports of agricultural products are various metals, textiles, and fish. Even the medicinal and pharmaceutical products are less human capital-intensive than might be imagined, because the bulk of these exports comprises generics.

An earlier analysis by Schrader, Benček and Laaser (2013: 19–21) already concluded that the technology and human capital content of Greek exports were traditionally relatively low, and further decreased during the crisis years. Less than 17 percent of Greek commodity exports were more or less technology-intensive compared to, for instance, a share of 60 percent in Germany. This result is in line with figures from the OECD (2015), which uses an alternative method to measure

Figure 4

**Top 10 commodity exports in Greece, 2014<sup>1</sup>**



<sup>1</sup> Exports in the 10 largest two digit commodity groups in percent of total export.

SITC codes:

- 33 Petroleum, petroleum products and related materials
- 05 Vegetables and fruit
- 68 Non-ferrous metals
- 54 Medicinal and pharmaceutical products
- 84 Articles of apparel and clothing accessories
- 89 Miscellaneous manufactured articles, N. E. S., electrical machinery, apparatus and appliances, N. E. S., and electrical parts thereof (including non-electrical counterparts, N. E. S., of electrical household-type equipment)
- 77 Fish (not marine mammals), crustaceans, molluscs and aquatic
- 03 Invertebrates and preparations thereof
- 67 Iron and steel
- 02 Dairy products and birds' eggs.

Source: Eurostat (2015d): Database: International Trade detailed data, <http://ec.europa.eu/eurostat/web/international-trade/data/database> (Download 05/07/2015).

the technology content of exports: In 2013, again less than 17 percent of Greek exports came from high- or medium-high technology industries.

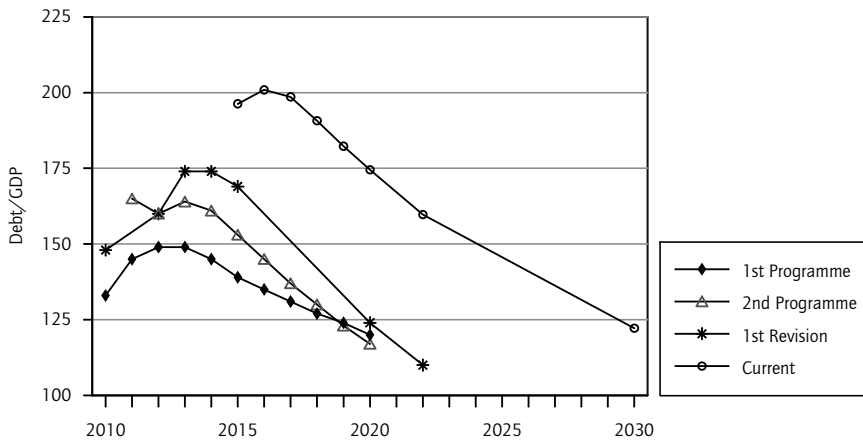
Against this backdrop, the slight recovery of Greek exports indicates neither a stronger role of Greek exporters on growing global markets, nor of technology- or human capital-intensive contributions of Greek enterprises to international value-added chains of production. Instead, exports are focused on raw materials and products thereof, as well as on labor-intensive goods and agricultural products. They reveal Greece's technological gap compared to highly industrialized countries, as well as a growing number of emerging market economies in Asia and Eastern Europe. Greece's composition of commodity exports exhibits a limited growth and value-added potential, and is more comparable to the export patterns of low-income countries. Hence Greece's structural deficiencies also become obvious in its export industries. Both the present size and quality of the Greek export industries create doubt that Greece will overcome the present crisis in the short term through an export-led growth.



Figure 5

**Development of debt trajectory projections for Greece**

In percent



Source: IMF (2010), EU Commission (2012a, 2012b, 2015a), own compilation.

**4 Debt sustainability**

The previous sections have shown in detail the structural weaknesses still present in the Greek economy. They have also demonstrated that the potential for an export-led growth of Greece is highly limited. However, this has always been one of the major building blocks for the intended economic recovery, particularly in order to restore debt sustainability (IMF 2010: 8). As long as the economy grows at a fast pace, the high debt-to-GDP ratio would be negligible, and would cease to be an obstacle to capital market access.

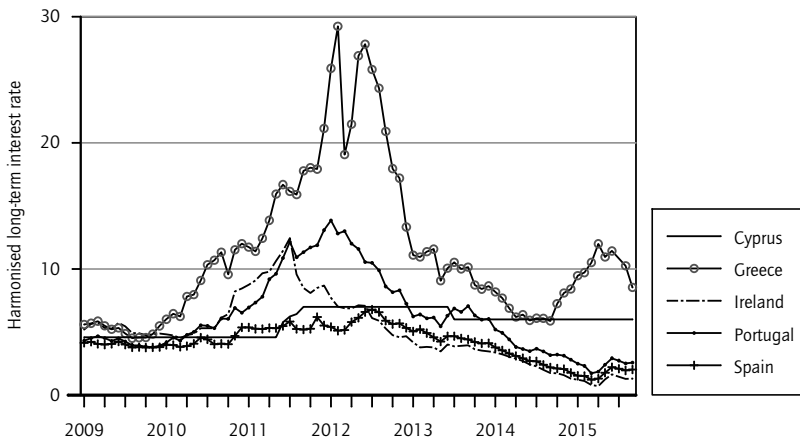
This assumption also underlies the third economic adjustment program for Greece, which was constructed in August 2015 to provide the country with much-needed liquidity: Over the next three years, Greece will receive financial assistance of up to 86 billion euro. Although parts of the package are intended to repay existing loans, the total sum of public debt will have to rise sharply. Accordingly, the latest projection of the debt trajectory shows just how much the recent program falls short when compared to initial projections from the start of the Greek debt crisis in 2010 (Figure 5). By now, a formally sustainable debt level of around 120 percent of GDP will be reached a decade later than originally expected.

But given the lack of growth potential, other possible measures to reduce Greece's burden of debt seem to be necessary. During the past five years, two such targeted measures to increase or restore the sustainability of Greek debt have already been undertaken: A haircut on privately held government bonds in February 2012 as well as the debt buyback program that was agreed upon and executed in November/December 2012. The result was the large dent in the debt trajectory from the first revision of the second adjustment program depicted in Figure 5. However, an economy that continues to shrink and an additional need for loans have led to steady increases in Greece's debt-to-GDP ratio.

Figure 6

**Harmonized long-term interest rates since 2009**

In percent



Source: ECB (2015), own compilation.

Of course, such high levels of debt do not pose a problem as long as the state can refinance them. But while both measures, the haircut and the debt buyback, strongly affected the secondary market interest rate of Greek government bonds and considerably reduced the excessive risk premium, a comparison with the rest of the program countries also illustrates how detrimental the final quarter of 2014 and the first six months of 2015 have been to the fragile Greek recovery (Figure 6): Political uncertainty, as well as a dwindling commitment to and even outright backtracking on previous reforms have caused interest rates to soar well above 10 percent again.

Against this backdrop, a targeted action to increase Greece’s debt sustainability is required, as independent capital market financing is not feasible and the structural lack of growth potential prevents simply outgrowing public debt. The rest of this section will address this issue by first applying a general measure of sustainability and then using it to determine the extent to which Greek debt would need to be reduced.

Since neither solvency nor liquidity is a suitable criterion to assess the sustainability of public debt, the concept of a debt-stabilizing primary surplus has been adopted in the finance literature as an appropriate tool (see e. g. Buiter and Kletzer 1992, Buiter 1993, Wigger 2010). It identifies the primary surplus a country needs to achieve in order to hold its debt-to-GDP ratio constant. To derive it, the following relationship between current and future debt-to-GDP ratio ( $d_t$  and  $d_{t+1}$ ) is used:

$$d_{t+1} = \frac{1+i}{1+g} d_t + c_t - \tau_t.$$

Where  $i$  denotes the nominal interest rate on government debt and  $g$  represents the nominal growth rate. The difference between government revenue and spending relative to GDP  $\tau_t - c_t$  is

by definition the primary surplus ratio  $p_t$ . Thus the change in debt-to-GDP between two periods can be expressed as

$$d_{t+1} - d_t = \frac{i-g}{1+g} d_t - p_t.$$

Assuming a constant debt-to-GDP ratio requires the left-hand side of this equation to be zero, and leads to the debt-stabilizing primary surplus

$$p^* = \frac{i-g}{1+g} d_t$$

Determining  $p^*$  for the case of Greece is then only a matter of plugging in the appropriate data: Taking the current secondary market interest rate of ten-year government bonds as the average interest rate  $i$ , and the current debt-to-GDP ratio as  $d_t$ , we can consider two conservative long-term nominal growth scenarios with  $g=2$  percent and  $g=4$  percent: The resulting debt-stabilizing primary surplus is 12.4 percent and 8.4 percent for both growth scenarios, respectively.

Greece's debt-stabilizing primary surplus has decreased significantly since its peak in February 2012—this should not, however, hide the fact that the current level is still far from being achievable: A  $p^*$  of 5 percent can be considered the upper limit of a sustainable public debt in the long term (Benček and Klodt 2011). Values above this threshold cannot be expected for longer periods of time. Significant drops in Greece's debt-stabilizing primary surplus have only ever occurred with the help of extraordinary measures: debt restructuring, the ECB announcement of unlimited bond purchases, and the bond buyback program. Therefore, a similarly decisive external coping mechanism for the still-increasing level of debt seems inevitable. Whether a restructuring of Greek public debt takes place via an outright haircut, or by extending the life of the loans, postponing the amortization period, and reducing the average rate of interest, the required extent of debt relief is the same and can be calculated in the following way:

Using the critical level of  $p^*=5$  percent and solving the  $p^*$ -equation for  $d_t$ , we can calculate the maximum sustainable debt-to-GDP ratio, and can therefore derive how much of a reduction in debt  $h$  is necessary to reach it:

$$(1-h)d_t = 0.05 \frac{1+g}{i-g}$$

This crude measure would, however, neglect that the interest rate would react to a lower debt-to-GDP ratio, and the required reduction would be overstated. According to Baldacci and Kumar (2010) as well as Laubach (2009), a reaction of the interest rate between 3 to 7 basis points for each percentage point of debt reduction can be expected. The interest rate will thus become

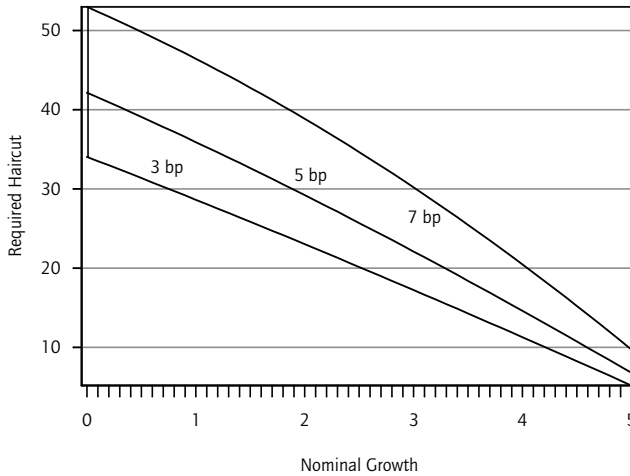
$$i_h = i - h d_t \frac{x}{100}, \quad x \in [3,7]$$

We can use this relationship in the  $p^*$ -equation to arrive at a more dynamic expression for the required reduction in debt  $h$ :

Figure 7

**Haircuts necessary for a sustainable level of debt, depending on nominal growth and market reaction**

In percent



Source: Own compilation.

$$\frac{i}{1+g} (i - h d_t \frac{x}{100} - g) (1 - h) d_t = 0.05.$$

The solution is depicted in Figure 7 as a corridor of required haircuts subject to the underlying nominal growth rate. Assuming an average long-term growth of 3 percent, the cost of reducing Greece’s public debt to a sustainable level would equal a haircut between 17 percent and 30 percent. Instead of an outright haircut, the politically more likely scenario is a restructuring of Greece’s debt (see e.g. Darvas and Hüttl 2015). From a purely economic perspective, there is no difference between such a silent debt relief and an unconcealed haircut, since the costs incurred by the creditors are the same. But in any case, such a reduction in debt will not be sufficient without new growth impulses. While a sustainable level of debt can provide the fiscal stability Greece needs to regain capital market access, a haircut (or debt restructuring) can only serve an economic recovery if it is accompanied by continuing structural reforms. They are the necessary condition for future export-based growth.

**5 A relaunch of structural reforms**

Against the backdrop of its persistent structural weakness, the Greek economy needs supply-oriented structural reforms to initiate a process of investment- and export-led growth. Within the scope of a comprehensive analysis of the EU’s Southern enlargement, Laaser (1997: 135–151) showed that in the course of European integration, Greece missed the opportunity to develop a properly functioning market economy and to catch up with the EU core members. In contrast

to the other EU accession countries Portugal and Spain, it failed to remove market distortions and disincentives to invest. As Krueger (1998: 1519–1520) already concluded, growth-inhibiting policies can diminish the growth effects of trade liberalization. Baldwin and Seghezza (1998: 390–396) confirmed these insights empirically when analyzing European integration: They explained the absence of EU membership investment-led growth in Greece with the continued state control of the economy and political mismanagement—unlike in Ireland, Portugal, and Spain.

Structural reforms can take effect only in the medium and long term. In the short term, the reforms will result in a loss of income, wealth, and privileges, as well as of social security. Under these circumstances, it is agreed that no more time should be wasted accelerating the reform process. In view of the economic and political reform burden, it is reasonable for the creditor countries and institutions to support Greek reform efforts by all available means. Reforms that would stimulate the growth process and thereby pave the way to economic recovery are eventually a necessary condition to overcome the pending debt crisis.

The Memorandum of Understanding for a three-year ESM program that Greek representatives and the EU Commission signed in August 2015 (EU Commission 2015b) seems to imply the awareness that structural reforms matter for enhancing competitiveness and growth. Reforming the labor market, modernizing the educational system, liberalizing product markets, improving the business environment, better regulating the network industries, continuing the privatization process, and reorganizing public administration and other state institutions—no cornerstone of a comprehensive reform process is missing.

But this list of structural reforms negotiated with the Greek government raises a feeling of *déjà vu*. Since May 2010, the euro area countries have tied financial assistance for Greece to extensive structural reforms. The Second Economic Adjustment Programme for Greece included a detailed reform agenda with a time schedule for the implementation of single reform measures, supervised by the troika of the IMF, EU Commission, and ECB (EU Commission 2012a, 2012b). This process should have been completed within the duration of this program. That it has not been completed is made clear by the monitoring reports of the troika institutions (IMF 2014: 17–24) and the obvious necessity to include numerous familiar reform actions in the Memorandum of Understanding. It is more or a less a relaunch of the Greek reform process.

Therefore, it appears ambitious to implement the bulk of the reform agenda within roughly one year, with a lot of reform elements actually being subjected to prior action ahead of the next disbursement. As of August 14, the majority of the 58 prior actions the Greek government had been committed to were done or were scheduled to be completed by September to November 2015 (EU Commission 2015c: 15–18). In reference to structural reforms, at the very least, the improvements of the business environment and the market liberalization must be completed by December 2016 at latest, and the bulk of reforms even earlier.

But what does implementation mean? Is the Greek government also committed to enforcing the reforms and to supervising the compliance with the new rules? Again, the answer to these questions depends firstly on the political will of the Greek decision makers to support the application of the new rules in administrative practice, and secondly on the administrative capabilities in Greece. In the past, both requirements were not met: Evaluations by the OECD of previous reform efforts (OECD 2011) suggest that the Greek administration is unable to cope with the complex reform process in a professional manner. Moreover, in the course of 2015, the new and

re-elected Greek government lacked ownership of the reform process and did not imply that it has the political will to carry through the reforms.

Doubts regarding a near-term completion of the reform process in particular remain in two major fields of structural reforms: labor market policy and privatization policy. In the case of labor market policy, the Memorandum of Understanding (EU Commission 2015b: 21–22) appears to be rather defensive. It postulates to balance flexibility and fairness for employees and employers, demands to refrain from returning to pre-reform policy settings, and announces a review process on labor market institutions. In contrast, only just one year ago the IMF (2014: 19, 23) complained about the delays in the field of labor markets reforms and the missing European best practice. But now, a speed-up of labor market reforms has become unlikely.

The same is true for the privatization process (EU Commission 2015b: 27–29). The relaunch of the privatization process, which has been stagnant since the beginning of 2015, promises at least the conclusion of projects initiated by the former government. But the newly established privatization fund, a centerpiece of the Memorandum of Understanding, is far from being established, its independence from the government is questionable, and the revenue target of 50 billion euro appears to be just as illusionary as it was in 2010.<sup>3</sup>

In view of Greece's limited administrative capability, technical assistance to carry through the reform process successfully seems indispensable. To speed up and improve the reform process, it makes sense to entrust external experts with the task of organizing and implementing reform measures. These external experts could be recruited from European institutions or from the public service of other EU countries. In addition, domestic and international consulting firms could be charged with the implementation of reform projects. The privatization of state property and state-owned enterprises in particular offers opportunities for professionalization. The outsourcing process could be coordinated by an EU institution together with an independent Greek deregulation agency with far-reaching competencies. The transfer of official competencies to external experts would mean a limitation of Greek sovereignty, but it should be acceptable within the scope of well-defined reform projects.

Unfortunately, the Memorandum of Understanding follows this idea of outsourced reform projects only halfway. In fact, it is explicitly written down that the Greek authorities intend to seek technical assistance from the OECD, World Bank, and EU Commission, as well as member state experts, other international organizations, and independent consultants (EU Commission 2015b: 25). But it is up to the Greek authorities on a project-by-project basis to decide whether and whose assistance they request—and the authorities that failed to complete the reform process successfully during the past five years are still in charge. Hence, technical assistance as intended by the Memorandum differs significantly from outsourcing as proposed.

But it is not only the better prospect of a successful completion of the reform process that suggests its outsourcing: The Greek authorities have to rely on a state and public administration that itself has to undergo a complex process of reorganization, rationalization, optimization etc. in the years ahead (EU Commission 2015b: 29–32). Needless to say that these reforms are long overdue;

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3 The IMF has since lowered its 2010 projection of 50 billion euro to 22.4 billion euro (IMF 2014: 18).

however, they also mean that the public administration will become even less functional and a less effective tool for carrying out the reforms.

## 6 Conclusions

In 2014, there was evidence that Greece's economic situation would take a turn for the better for the first time in a long while. A positive growth rate and a primary surplus of the Greek state budget seemed to signal that the reform and austerity policy would pay off. Meanwhile, the prospects in the current year 2015 are gloomy, and the economic recovery and the fiscal consolidation process have come to a standstill in the course of the political struggle between the Greek government and the creditors, as well as inside the ruling Syriza party.

The Memorandum of Understanding that was signed in August 2015 comprises a suitable reform agenda—as it already was with the last bailout program. In addition, a final haircut or a phasing-out of the Greek debt burden should be considered to make Greece's public debt sustainable. But again, it is crucial that the Tsipras government will take the ownership of the reforms. There is reasonable doubt that the Greek policymakers have understood that structural reforms are indispensable for economic recovery. And there is also reasonable doubt that the Greek administration can implement and enforce the reforms without external support—and for this reason, the outsourcing of reform projects is advisable despite a loss of sovereignty. Therefore, the Greek government should send appropriate signals that it supports the reform process without any qualification.

Greek policymakers should keep in mind that the reform process is essential for improving the conditions for doing business in Greece and attracting private investors who could initiate the kind of structural change Greece needs to generate economic growth in the long run. A dynamic investment process is indispensable for accelerating the modernization of the Greek economy. Greece needs private capital to develop competitive structures and to integrate the economy into international chains of production, preferably with high value added at Greek locations. Greece faces the problem that it can never win a wage race against low-income countries from Eastern Europe or Asia if it seeks to retain its prosperity level. To remain in the group of high-income countries, Greece has to increase its total factor productivity by modernizing its economic structures.

## References

- Baldacci, E., and M. S. Kumar (2010): Fiscal Deficits, Public Debt, and Sovereign Bond Yields. IMF Working Papers 10/184.
- Baldwin, R., and E. Seghezza (1998): Regional Integration and Growth in Developing Nations. *Journal of Economic Integration*, 13 (3), 367–399.
- Bank of Greece (2015): Statistics: Balance of Payments. [www.bankofgreece.gr/Pages/en/Statistics/externalsector/balance/basic.aspx](http://www.bankofgreece.gr/Pages/en/Statistics/externalsector/balance/basic.aspx) (download 10/19/2015).
- Benček, D., and H. Klodt (2011): Fünf Prozent sind (zu) viel: Szenarien zu den benötigten Primärüberschüssen der Euroländer. *Wirtschaftsdienst*, 91 (9), 959–600.

- Buiter, W. H. (1993): Public debt in the USA. How much, how bad and who pays? NBER working paper 4362. Cambridge, MA.
- Buiter, W. H., and K. M. Kletzer (1992): Government Solvency, Ponzi Finance and the Redundancy and Usefulness of Public Debt. NBER working paper 4076. Cambridge, MA.
- Darvas, Z., and P. Hüttl (2015): How to reduce the Greek debt burden? Bruegel: Analyses, January 9. [www.bruegel.org/nc/blog/detail/article/1533-how-to-reduce-the-greek-debt-burden/](http://www.bruegel.org/nc/blog/detail/article/1533-how-to-reduce-the-greek-debt-burden/) (download 10/13/2015).
- ECB (European Central Bank) (2015): Long-term interest rate statistics for EU Member States. [www.ecb.int/stats/money/long/html/index.en.html](http://www.ecb.int/stats/money/long/html/index.en.html) (download 10/13/2014).
- EU Commission (2012a): The Second Economic Adjustment Programme for Greece. Occasional Papers 94. March. Brussels.
- EU Commission (2012b): The Second Economic Adjustment Programme for Greece First Review. December. Brussels.
- EU Commission (2013): European Economic Forecast, Autumn 2013. European Economy 7/2013. November. Brussels.
- EU Commission (2015a): Debt Sustainability Analysis. Download 10/13/2015. [http://ec.europa.eu/economy\\_finance/assistance\\_eu\\_ms/greek\\_loan\\_facility/pdf/debt\\_sustainability\\_analysis\\_en.pdf](http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/debt_sustainability_analysis_en.pdf).
- EU Commission (2015b): Memorandum of Understanding between the European Commission Acting on behalf of the European Stability Mechanism and the Hellenic Republic and the Bank of Greece. Brussels.
- EU Commission (2015c): Report on Greece's compliance with the draft MOU commitments and the commitments in the Euro Summit statement of 12 July 2015. Brussels.
- Eurostat (2015a): Database, Economy and Finance, Annual National Accounts, Basic Breakdowns of Main GDP Aggregates and Employment, Gross Value Added and Income by A\*10 Industry Breakdowns [nama\_10\_a10]. <http://ec.europa.eu/eurostat/data/database> (download 10/06/2015).
- Eurostat (2015b): Database, Economy and Finance, Annual National Accounts, Basic Breakdowns of main GDP Aggregates and Employment, Employment by A\*10 Industry Breakdowns [nama\_10\_a10\_e]. <http://ec.europa.eu/eurostat/data/database> (download 10/06/2015).
- Eurostat (2015c): Statistics: National accounts, GDP and main components (output, expenditure and income). <http://ec.europa.eu/eurostat/web/national-accounts/data/database> (download 10/15/2015).
- Eurostat (2015d): Database: International Trade detailed data. <http://ec.europa.eu/eurostat/web/international-trade/data/database> (download 05/07/2015).
- Frankfurter Allgemeine Zeitung (2015): Letzte Frist vor dem Grexit. 9.7.2015.
- Grossman, G. M., and E. Helpman (1991): Innovation and Growth in the Global economy. Cambridge, MA and London.
- Hausmann, R., and C. A. Hidalgo (2011a): The Network Structure of Economic Output. *Journal of Economic Growth*, 16, 309–342.
- Hausmann, R., and C. A. Hidalgo (2011b): The Atlas of Economic Complexity: Mapping Paths to Prosperity. Cambridge, MA, The MIT Press. [www.cid.harvard.edu/documents/complexityatlas.pdf](http://www.cid.harvard.edu/documents/complexityatlas.pdf) (download 11/25/2015).
- Hausmann, R., and C. A. Hidalgo (2012): Essay—Economic Complexity and The Future of Manufacturing. In: J. Moavenzadeh, P. Philip, C. A. Giffi, and A. Thakker (eds.): *The Future of Manufacturing. Opportunities to Drive Economic Growth*. A World Economic Forum Report in collaboration with Deloitte Touche Tohmatsu Limited. Cologny/Geneva.



- [www3.weforum.org/docs/WEF\\_MOB\\_FutureManufacturing\\_Report\\_2012.pdf](http://www3.weforum.org/docs/WEF_MOB_FutureManufacturing_Report_2012.pdf) (download 11/25/2015).
- Hidalgo, C. A., and R. Hausmann (2009): The Building Blocks of Economic Complexity. *Proceedings of the National Academy of Sciences of the United States of America*, 106 (26), 10570–10575.
  - IMF (International Monetary Fund) (2010): IMF Country Report 10/110. Washington, D. C.
  - IMF (International Monetary Fund) (2013): IMF Country Report 13/241. Washington, D. C.
  - IMF (International Monetary Fund) (2014): Greece. IMF Country Report 14/151. Washington, D. C.
  - Krueger, Anne O. (1984): Problems of Liberalization. In: A. C. Harberger (ed.): *World Economic Growth*. San Francisco, 403–423.
  - Krueger, Anne O. (1998): Why Trade Liberalisation is Good for Growth. *The Economic Journal*, 108 (September), 1513–1522.
  - Laaser, C.-F. (1997): Ordnungspolitik und Strukturwandel im Integrationsprozess: Das Beispiel Griechenlands, Portugals und Spaniens. *Kieler Studien* 287. Tübingen.
  - Laubach, T. (2009): New Evidence on the Interest Rate Effects of Budget Deficits and Debt. *Journal of the European Economic Association*, 7 (4), 858–885.
  - Manyika, J., J. Sinclair, R. Dobbs, G. Strube, L. Rasse, J. Mischke, J. Remes, C. Roxburgh, K. George, D. O’Halloran, and S. Ramaswamy (2012): *Manufacturing the Future: The Next Era of Global Growth and Innovation*. McKinsey Global Institute and McKinsey Operations Practice. [www.mckinsey.com/insights/manufacturing/the\\_future\\_of\\_manufacturing](http://www.mckinsey.com/insights/manufacturing/the_future_of_manufacturing). (download 11/25/2015).
  - McKinsey & Company (2011): Greece 10 Years Ahead. Defining Greece's new growth model and strategy. Executive summary, September, Athens.
  - Moavenzadeh, J., P. Philip, C. A. Giffi, and A. Thakker (2012): *The Future of Manufacturing. Opportunities to Drive Economic Growth*. A World Economic Forum Report in collaboration with Deloitte Touche Tohmatsu Limited. Cologne/Geneva. [www3.weforum.org/docs/WEF\\_MOB\\_FutureManufacturing\\_Report\\_2012.pdf](http://www3.weforum.org/docs/WEF_MOB_FutureManufacturing_Report_2012.pdf) (download 11/25/2015).
  - OECD (2011): Greece: Review of the Central Administration. *OECD Public Governance Reviews*. 2. December. Paris.
  - OECD (2015): STAN Bilateral Trade in Goods by Industry and End-use (BTDIxE), ISIC Rev.3. Download 10/14/15.
  - Schrader, K., D. Benček, and C.-F. Laaser (2013): IfW-Krisencheck: Alles wieder gut in Griechenland? *Kieler Diskussionsbeiträge* 522/523. Kiel Institute for the World Economy, Kiel.
  - Schrader, K., D. Benček, and C.-F. Laaser (2015): Greece: How to Take a Turn for the Better. *Kiel Policy Brief* 83. Kiel Institute for the World Economy, January.
  - Tasse, G. (2014): Competing in Advanced Manufacturing: The Need for Improved Growth Models and Policies. *Journal of Economic Perspectives*, 28 (1), 27–48.
  - Wigger, B. U. (2010): Öffentliche Haushalte in der Krise. In: T. Theurl (ed.): *Wirtschaftspolitische Konsequenzen der Finanz- und Wirtschaftskrise*. Berlin, Schriften des Vereins für Socialpolitik, 85–103.