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**5<sup>th</sup> Report**

**iAGS**

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**THE ELUSIVE RECOVERY**  
Special studies on Greece and Germany



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*The authors are*

Georg Feigl, Markus Marterbauer, Miriam Rehm, Matthias Schnetzer, Sepp Zuckerstätter (**AKW**)

Lars Andersen, Thea Nissen, Signe Dahl (**ECLM**)

Peter Hohlfeld, Benjamin Lojak, Thomas Theobald, Achim Truger, Andrew Watt (**IMK**)

Guillaume Allègre, Céline Antonin, Christophe Blot, Jérôme Creel, Bruno Ducoudré, Paul Hubert, Sabine Lebayon, Sandrine Levasseur, Hélène Périvier, Raul Sampognaro, Aurélien Saussay, Vincent Touzé, Sébastien Villemot (**OFCE**)

*Coordination by* Xavier Timbeau (**OFCE**).

*With the contribution from:*

Giorgos Argitis, Nasos Koratzanis, Christos Pierros (**INE**)

### ***iAGS Contacts***

*Scientific:* economics@iags-project.org

*Press:* press@iags-project.org

<http://www.iags-project.org>

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# THE GREEK CRISIS: OUTLOOK AND AN ALTERNATIVE ECONOMIC POLICY

Giorgos Argitis,<sup>1</sup> Nasos Koratzanis<sup>2</sup>, and Christos Pierros<sup>3</sup>

### 6.1. Introduction

For the last seven years the Greek economy has been entrapped in a dramatic crisis in depth, intensity and duration. The scale of the disruption the crisis has left behind is exceptional in the economic history of the country and is clearly visible in every aspect of the economic, social and political life. The aim of this survey is to present and critically evaluate the consequences of the creditors' crisis resolution strategy and to propose the basic pillars of an alternative economic policy that could help Greece exit the crisis. This issue gains in importance, particularly at the current juncture, in the light of three interrelated factors. First, the implementation of the third bail-out programme that has extended the regime of austerity in the country at least up to 2018. Second, the transition of the economy to a phase of stagnation, which Greek and EU authorities expect to end after the successful completion of the second review of the programme, the implementation of the short-run debt relief measures<sup>4</sup> and the ensuing inclusion of Greece in the ECB's quantitative easing (QE) programme. Third, the vibrant debate currently spurred among all participants in the Greek programme on the long-term sustainability of the country's public debt and future fiscal targets.

The thrust of our argument is that the very architecture of the macroeconomic adjustment programmes implemented in Greece since 2010 is incompatible

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1. Professor of Macroeconomics at the National and Kapodistrian University of Athens and Scientific Director of the Labour Institute of the Greek General Confederation of Labour (INE GSEE).
  2. Researcher at the INE GSEE.
  3. Researcher at the INE GSEE.
  4. On the array of short-term measures recently decided for relieving Greece's public debt see Eurogroup (2016).

with the country's consumption-led growth model. Thus, any attempt to address Greece's sovereign debt crisis and lacking competitiveness by means of a frontloaded mix of fiscal discipline and internal devaluation is destined to fail, aggravating the country's financial instability, productive deficiencies and social distress. In view of that, any real prospect for Greece to escape from the crisis and return to market financing in the coming months is highly uncertain. Greece is rather in urgent need of pursuing an alternative policy strategy that would target investment and employment creation as a means of restoring economic growth and financial stability.

The remainder of this report is organised as follows:<sup>5</sup> Section 2 exposes the fiscal conditions in Greece and underlines the failure of the creditors' fiscal plan to resolve Greece's sovereign solvency problem. Section 3 focuses on the failure of the internal devaluation strategy to foster employment and export competitiveness in the country. Section 4 briefly reports the impact of the creditors' policy agenda on the financial stability of the Greek private sector. Section 5 pays attention to the impact of the two adjustment programmes on the Greek labour market and industrial relations, as well as on poverty and living conditions. Section 6 presents the main pillars of an alternative policy proposal that has been elaborated by the Labour Institute of the Greek General Confederation of Labour (INE GSEE).

## 6.2. Fiscal austerity and sovereign debt crisis

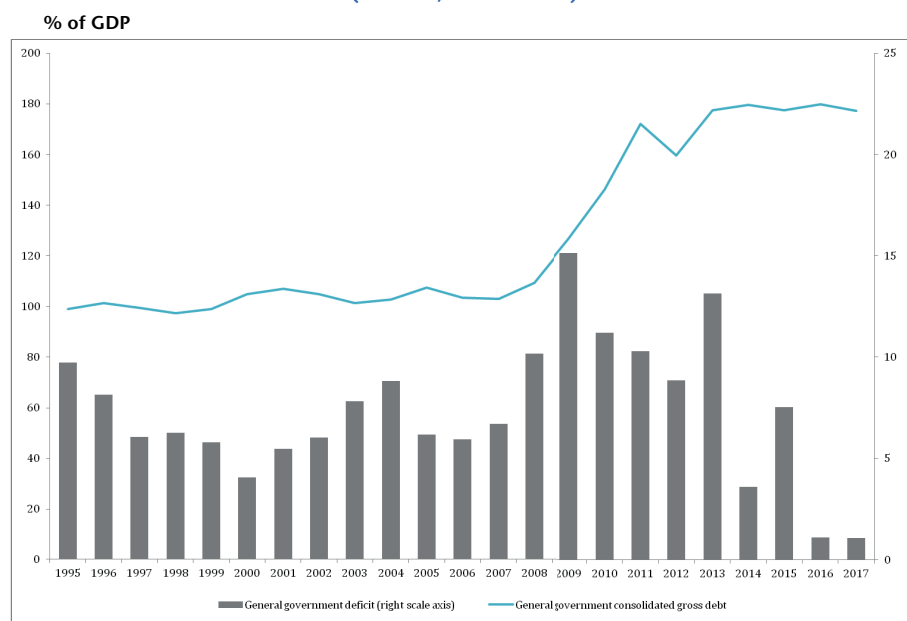
Seven years after the outbreak of the sovereign debt crisis, the Greek economy continues to be stuck in a debt trap with the near-term fiscal outlook remaining gloomy and uncertain. The main reason for this is twofold: a) creditors' overemphasis on fiscal austerity that has proven incapable of restoring the country's solvency, credibility and creditworthiness, thereby feeding market perceptions of a possible debt default; and b) the imposition of a pro-cyclical fiscal tightening amid deflationary conditions that has caused negative growth effects, thus further raising the country's credit risk. Against this backdrop and irrespective of the extent of the forthcoming debt restructuring measures, the route of the Greek economy over the coming years will primarily depend on its growth performance and thereby its ability to generate on a sustainable basis a primary budget surplus to service its debt payments.

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5. This report heavily relies on a series of studies and reports edited by INE GSEE. See, for instance, INE GSEE (2015), INE GSEE (2016a) and INE GSEE (2016b).

Figure 1 provides a clear indication of the currently fragile financial position of the Greek public sector, tracing the evolution of the gross public debt and budget balance ratios to GDP from 1995 to 2017. It becomes clear that following a long period of fiscal imprudence and excessive deficits, since 2010 Greece has engaged in an extremely ambitious fiscal consolidation plan. The government budget deficit has declined from 15.1% of GDP in 2009 to 1.1% in 2016,<sup>6</sup> while in structural terms the improvement of the fiscal balance in the period 2010-2016 has reached 13.6 percentage points, the largest seen across the EU. This extraordinary fiscal consolidation performance over the past years has been greatly facilitated by the package of harsh austerity measures embarked upon by the Greek authorities since 2010 in the context of the three Memoranda of Understanding (MoU). Nonetheless, the cost of this staggering fiscal adjustment in terms of social services provision, public investment and employment has been tremendous. According to the European Commission,

**Figure 1. Gross public debt and public budget deficit (Greece, 1995-2017)**



Note: Forecast values for 2017.

Source: AMECO.

6. Note that the size of the deficit in 2013 and 2015 is overestimated due to the recapitalisation of the Greek banking sector.

between 2009 and 2015 the number of persons employed in the public sector has dropped by roughly 26%.<sup>7</sup> Moreover, compared to 2009 social transfers in kind and social benefits other than social transfers in kind have fallen in 2016 by 40.7% and 14.6% respectively, while the corresponding drop in public investment spending in nominal terms has surpassed 48%.<sup>8</sup>

However, fiscal austerity has been unsuccessful in reducing the gross debt-to-GDP ratio. More specifically, the ratio has reached a peak over the adjustment period, increasing from around 126.7% in 2009 to 179.7% in 2016, despite the large debt ‘haircut’ agreed in early 2012. Additionally, according to the latest estimates, the debt burden is set to remain essentially stable in 2017, breaching 177% of GDP. This is a fairly disappointing track record, given creditors’ initial anticipations on the allegedly expansionary results of fiscal consolidation, and therefore on the usefulness of a front-loaded austerity plan for ensuring sound public finances and long-run fiscal sustainability. The fact that the ratio of public debt-to-GDP has remained for too long at unacceptable record high levels poses a direct challenge to the very credibility of the macroeconomic adjustment programmes, which have failed to improve risk sentiment in financial markets and create prospects for a return to market financing in the foreseeable future. The main drivers behind the over-indebtedness of the Greek public sector have been the massive bailout loans granted to the country to avoid default and the recessionary effects of the fiscal adjustment programmes implemented thereafter.<sup>9</sup>

A closer look at the major factors that have influenced the trajectory of the public debt-to-GDP ratio over the past few years helps explain Greece’s negative debt profile. As shown in Table 1, during the first phase of macroeconomic adjustment (2010-2013) the austerity-led contraction of real GDP along with extraordinary high interest payments and sizeable primary budget deficits have set the tone for the serious debt overhang episode in the country and the ensuing solvency crisis. Nevertheless, the year 2014 has been a turning point in the process with the achievement of a positive primary balance that has yet been insufficient to arrest debt dynamics. With the arrival in power of the new, SYRIZA-ANEL, government, Greece’s fiscal position has worsened substantially amid escalating macro-financial instability emerged by the lengthy negotiations

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7. See EC (2016a).

8. See AMECO database.

9. See ETUI (2016) for a comprehensive analysis on the failure of austerity policies to restore fiscal sustainability in Europe.



over the completion of the second programme and fierce speculations over a likely Grexit. Moreover, despite the achievement of a primary surplus of 2.3% of GDP, many of the debt-increasing parameters have remained in full force in 2016 and put strain on the country's public finances. The debt-to-GDP ratio is finally set to return on a downward path in 2017 in response to the over-ambitious growth assumptions and the projection of a primary surplus of 2.2%. However, debt sustainability has not been restored and it is not expected to be so in the near future under the existing austerity regime and the debt payment profile of the country. In fact, the IMF itself has repeatedly questioned Greek debt sustainability given the country's gross financing needs (GFN) schedule and inability to generate a primary surplus greater than 1.5% over the medium-term (see IMF, 2016a).

Table 1. Greece's gross public debt dynamics (2010-2017)

	2010	2011	2012	2013	2014	2015	2016	2017
<b>Public debt ratio</b>	<b>146.2</b>	<b>172.1</b>	<b>159.6</b>	<b>177.4</b>	<b>179.7</b>	<b>177.4</b>	<b>179.7</b>	<b>177.2</b>
Change in the public debt ratio: (1)+(2)+(3)	19.5	25.8	-12.5	17.9	2.3	-2.3	2.3	-2.5
<b>1. Primary balance</b>	<b>5.3</b>	<b>3.0</b>	<b>3.7</b>	<b>9.1</b>	<b>-0.4</b>	<b>3.9</b>	<b>-2.3</b>	<b>-2.2</b>
<b>2. Snow-ball effect: (i)+(ii)</b>	<b>12.3</b>	<b>20.7</b>	<b>19.3</b>	<b>13.3</b>	<b>6.7</b>	<b>5.9</b>	<b>2.7</b>	<b>-3.7</b>
i. Interest payments	5.9	7.3	5.1	4.0	4.0	3.6	3.4	3.3
ii. Impact of the nominal increase of GDP	6.5	13.4	14.2	9.3	2.7	2.3	-0.6	-7.0
<b>3. Stock-flow adjustment</b>	<b>1.9</b>	<b>2.1</b>	<b>-35.6</b>	<b>-4.6</b>	<b>-4.0</b>	<b>-12.1</b>	<b>1.9</b>	<b>3.4</b>
Real GDP growth	-5.5	-9.1	-7.3	-3.2	0.4	-0.2	0.3	2.7
Annual % change in GDP deflator	0.7	0.8	-0.4	-2.4	-1.8	-1.0	0.0	1.3

Note: Forecast values 2017.

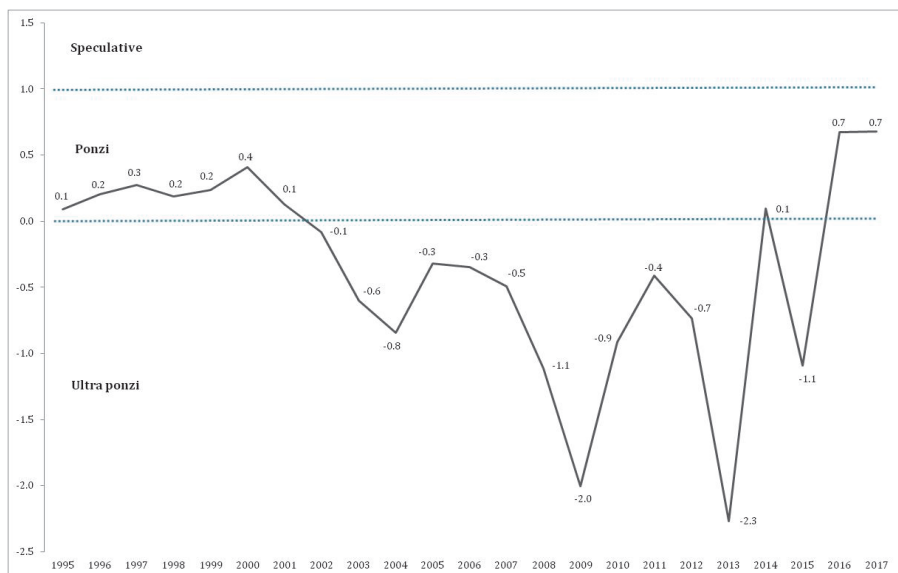
Source: AMECO (authors' calculations).

The failure of austerity to improve the financial credibility of the Greek public sector is confirmed by Figure 2 that shows the variation of the solvency index of the Greek public sector over the period 1995-2017.<sup>10</sup>

Figure 2 provides evidence that for the period 1995-2001 the financial structure of the Greek public sector has been fragile, situated in a Ponzi regime. From 2002 to 2009, the index has registered a sudden plunge, moving into the ultra-

10. For the construction of the solvency index see Argitis (2012), Michopoulou (2014) and Argitis and Nikolaidi (2014a). According to this index sovereign solvency depends on the government's capacity to generate primary surpluses in order to meet a large part, if not all, of its interest payment commitments. The public sector is considered to be: (a) in a solvent *speculative* regime, when the annual primary surplus exceeds the annual interest expenses on the outstanding debt; (b) in a fragile *Ponzi* regime, when the primary surplus is less than the annual interest payment obligations. In this case the country's solvency risk critically depends on its growth performance; and (c) in an insolvent *ultra-Ponzi* regime, when it runs a primary budget deficit.

Figure 2. Solvency index for the Greek public sector (1995-2017)



Note: Forecast values for 2017.

Source: AMECO (authors' calculations).

Ponzi regime. This shift exposes the exceptionally fragile financial position in the years just before the eruption of the global financial crisis. Moreover, over the first six years (2010-2015) of extreme austerity the Greek public sector has for the most part remained ultra-Ponzi, exhibiting high credit and solvency risk. Only in 2014, following a substantial fiscal tightening, the solvency index has reached its highest value in response to the achievement of a primary surplus. Yet, this improvement has been short-lived, as the financial structure of the Greek government worsened again in 2015, turning back to the ultra-Ponzi regime. For 2016 the index has jumped to the Ponzi position as a result of improved fiscal performance, while the projection for 2017 looks similar. Despite this improvement, Greece's credit risk is set to remain elevated, with its public sector financial position situated at the fragile Ponzi regime.

The profound reason for this is the depressing effects of austerity on internal demand that constantly drags down economic growth and hence the ability of the public sector to build an adequate primary surplus on a sustainable basis. This adverse effect also explains why Greece's impending participation in the ECB's QE programme may not solve the country's solvency problem, despite its positive contribution to relaxing the public sector's grave liquidity constraints in

bond markets. Note also that Greece's imminent growth and sustainability prospects are today subject to two considerable downward risks. The first refers to the deflationary impact expected this year from the enactment of an extra 2.4 billion euros worth (1.4% of GDP) package of austerity measures, mostly on the revenue side. The second risk is related to the uncertainty about the successful conclusion of the second review of the programme, which is currently held in abeyance, due, among other reasons, to the unreasonable demands of creditors for: a) further labour market deregulation, including increasing the collective dismissal ceiling from 5% to 10% and enshrining the employers' option of locking-out; and b) more austerity measures, such as the reduction of the tax income threshold and pensions, required for Greece to safeguard large primary surpluses during and after the end of the current programme.<sup>11</sup> Undoubtedly, implementing these demands is about to re-inflate recessionary dynamics in Greece, thus putting at stake economic recovery and debt sustainability prospects.

This danger becomes even more tangible in the light of the heavy toll already taken by austerity on ordinary people's living standards. In fact, as depicted in Table 2, the ratio of households' income tax and social security contributions to gross disposable income has considerably increased between 2010 and 2015, particularly for low-income households. The same also holds for the ratio of wealth tax to gross income, thus pointing out the disproportionate tax-burden borne by poorer households in the period of austerity. This evidence simply suggests that a further reduction of the income tax threshold is very likely, that will aggravate inequality in Greece, further depressing private consumption and domestic demand. Such implications will be even stronger bearing in mind the data presented in Figure 3 that exposes the key role of pensions in Greece in alleviating income inequality. As depicted, in 2015 pensions have contributed to lowering the Gini index by 24.2 percentage points, in fact being the only effective tool of social protection in the country. This role becomes even more critical, taking into account that, as a result of the record high levels of joblessness in the country, an increasing number of households nowadays depend on the family's pensions to make the ends meet.

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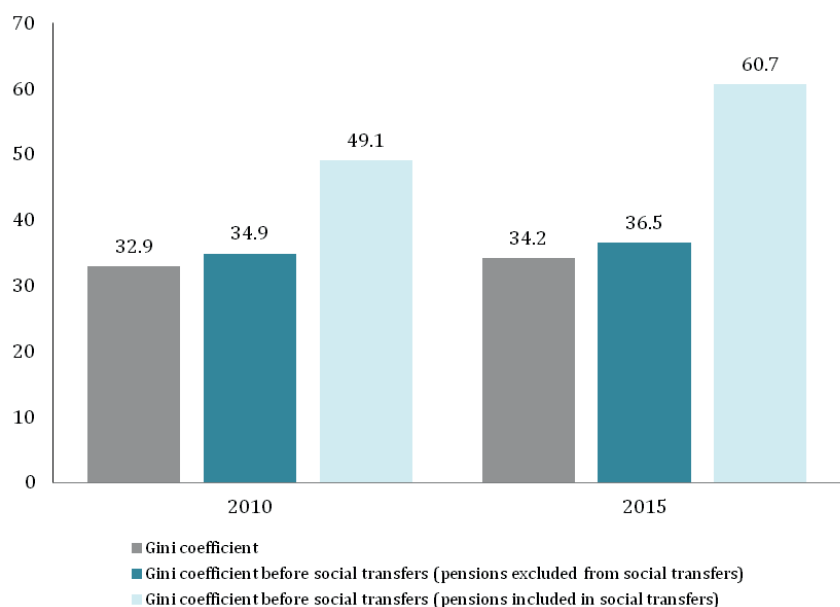
11. Such fiscal targets ostensibly revolve around need of re-establishing Greece's long-run debt sustainability, thereby allowing the IMF to contribute funds to the current bail-out programme and paving the way for the inclusion of the country in the ECB's QE.

Table 2. Households' tax burden in Greece (2010 and 2015)

	Income tax & social security contributions/ total gross income		Wealth tax/total gross income	
	2010	2015	2010	2015
Low-income households	6.13%	9.08%	0.14%	6.04%
High-income households	28.41%	30.04%	0.12%	2.46%

Sources: ELSTAT (authors' calculations), INE GSEE (2017).

Figure 3. Gini coefficient after and before social transfers in Greece (2010 and 2015)



Source: Eurostat.

All in all, austerity has not succeeded in consolidating sound and sustainable fiscal conditions in Greece and helping public authorities regain access to private bond markets. What it has succeeded in doing instead is to have plunged the Greek economy into a disastrous spiral of debt-deflation and recession<sup>12</sup> that consistently constrains the country's debt servicing capacity and

12. See also Gechert and Rannenberg (2015) for the contractive effects of fiscal austerity on GDP during the period of macroeconomic adjustment.

prolongs excessive macroeconomic and financial instability. This is plausible, since the creditors' strategy seems to completely neglect the adverse financial effects of austerity and strict fiscal discipline. In fact, the strong commitment to a policy of aggressive budget consolidation, rather than operating as a device for restoring growth, employment and debt sustainability, has instigated a deep liquidity crisis in the economy that systematically contracts domestic demand and employment. The creditors' fiscal consolidation programme is, therefore, self-defeating in that it creates no prospects for positive growth rates and sustainable primary surpluses in an environment of social and political stability.

### 6.3. The failure of the internal devaluation strategy

Internal devaluation was, and still remains, at the epicentre of the creditors' strategy to boost price competitiveness and gear the Greek economy towards a path of export-led growth.<sup>13</sup> Achieving high level sustainable growth is also perceived as a necessary condition in order for the economy to alleviate the recessionary effects of austerity and for the public sector to generate steadily an adequate primary surplus required to restore its sovereign solvency. Yet, the ingredients of the creditors' remedy, namely a combination of reducing the minimum wage, de-collectivising wage bargaining and lowering non-wage costs, have proven profoundly mistaken. The major reason for this is that this strategy has failed to consider the Greek economy's heavy reliance on domestic demand.<sup>14</sup>

In fact, it was only in 2014 that Greece had some signs of economic growth, with real GDP slightly expanding by 0.4% for the first time since the outbreak of the crisis, before falling again in 2015 and virtually stagnating in 2016. Note that, although the recessionary dynamics in Greece have begun to ebb away over the last three years, the cumulative loss of real GDP over the period 2010-2016 has reached nearly 25%. The main reason for this has been the collapse of internal demand (see Figure 4). Specifically, over the period under consideration the free fall of private consumption has cumulatively contributed by -18% to the change of GDP, with investment (-12.4%) and public consumption (-5.6%) following suit. Meanwhile, any positive growth contribution of the trade balance (9.8%) has arisen largely thanks to the pronounced drop in

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13. See Theodoropoulou (2014) for the philosophy underlying the creditors' internal devaluation strategy and for the relevant policy measures prescribed by Memoranda.

14. On that issue see also Theodoropoulou (2016).

Figure 4. Contributions to the change of real GDP (Greece, 2007-2017)



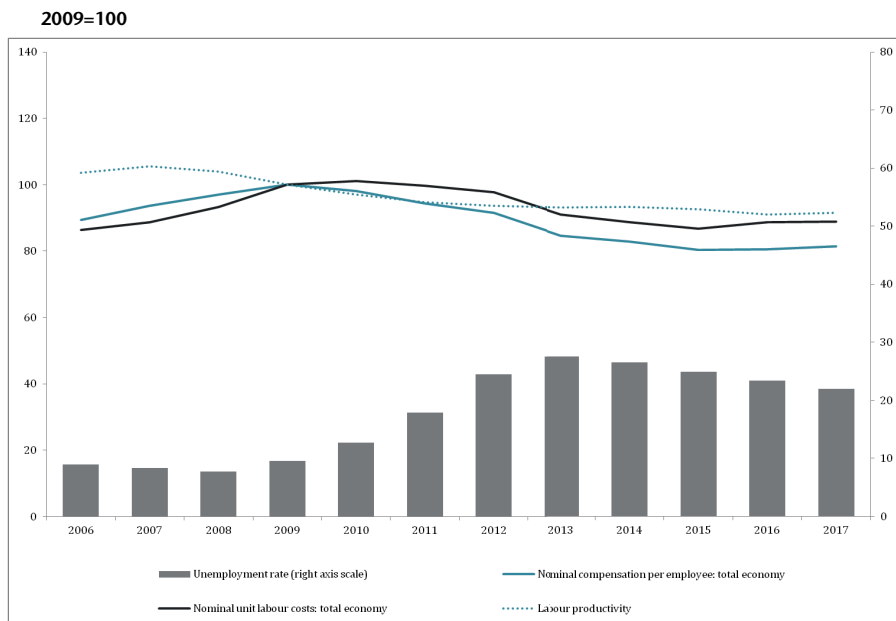
Note: Forecast values for 2017.

Source: AMECO (authors' calculations).

imports. For 2017, GDP growth is expected to rebound remarkably on the back of a dynamic recovery of investment and private consumption. Alas, such a prediction is exposed to substantial downward risks, taking into account the high level of uncertainty currently sparked in the economy due to the protracted negotiations for the completion of the second review, the anticipation of new harsh fiscal measures and the very fragile financial position of institutional sectors provoked by austerity and internal devaluation. The unexpected contraction of real GDP in the fourth quarter of 2016 by 1.1% compared to the same quarter of 2015 seems to confirm our doubt for the imminent growth prospects in Greece.

A key factor behind depressed demand and protracted economic slump over the last years has been certain developments in labour markets. During the macro adjustment period, a trend of aggressive wage compression has taken place, leading average nominal compensation per employee to plummet by over 19% relative to the 2009 level (Figure 5).<sup>15</sup> This outcome has been mainly triggered by the range of administrative and legislative measures taken towards greater labour market flexibility and wage cost reduction as part of the credi-

Figure 5. Compensation of employees, unit labour cost and unemployment rate (Greece, 2006-2017)



Note: Forecast values for 2017.

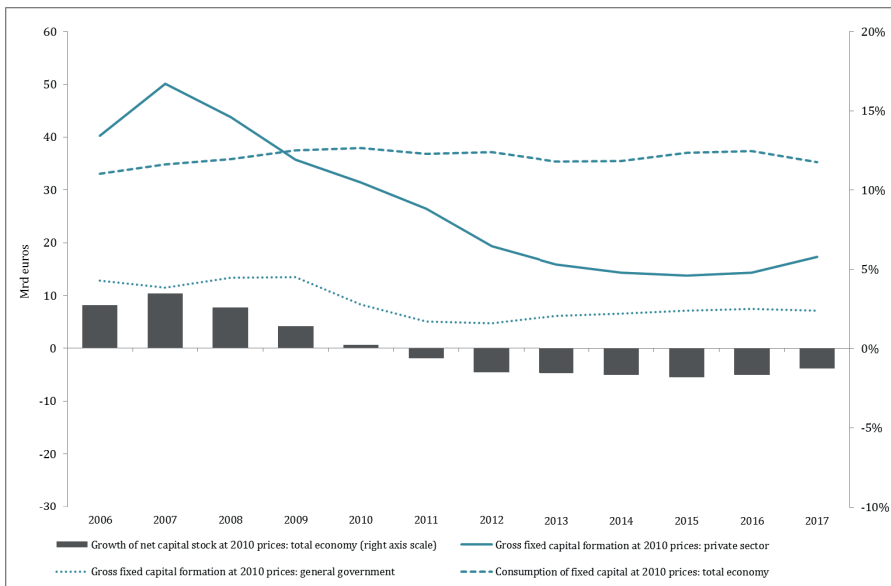
Source: AMECO (authors' calculations).

tors' internal devaluation strategy. Significant wage-reducing effects had also been produced by deep public spending cuts, as well as by the explosive rise of unemployment that further eroded trade unions' bargaining power in an environment of labour market deregulation. Meanwhile, the contraction of nominal labour compensation has been accompanied by stagnant growth of labour productivity, following the steep fall of productivity recorded in the first phase of the Greek crisis (2008-2010). The combined outcome has been a sharp downward adjustment in unit labour costs for the aggregate economy, especially in the period 2011-2015 when unemployment surged to over 25%. Note also that, while unit labour cost has slightly edged up in 2016, this development has been primarily attributed to the fall of productivity rather than to a robust increase in labour compensation. Finally, for 2017 the path of unit labour cost is projected to remain virtually unchanged.

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15. Onaran and Obst (2016) document evidence on the existence of a wage-led growth regime across EU-15 member states (including Greece) and underscore the deflationary effects of the currently dominant policy paradigm.

However, labour cost restraint and increased labour market flexibility have failed to spur investment and competitiveness. What has instead occurred is that the consumption of private capital has gathered momentum, indicating the cut-back or closure of private firms and the consequent destruction of fixed capital assets (see Figure 6). This process has deepened the weakness of the Greek economy and greatly contributed to the declining performance of virtually all branches of economic activity. Specifically, in the period between the fourth quarter of 2010 and the fourth quarter of 2016 all key branches, other than real estate activities and agriculture, forestry and fisheries, have witnessed a pronounced drop in real gross value added. The steepest fall has occurred in construction (35.6%) followed by professional, scientific and technical activities (31%) and information and communication (26.7%). Real gross added value in manufacturing, a key sector with substantial productivity potential, has also declined by 10.2%. Needless to say, the gap between the consumption of fixed capital and private gross fixed capital formation traced in Figure 6 clearly reflects these developments and indicates the negative contribution of investment to GDP growth. The closure of this gap requires huge investment in fixed capital and this is of paramount importance in order for the private sector to contribute to the transition of the economy from a vicious circle of deflation and crisis to the virtuous circle of growth and job creation.

Figure 6. Investment and capital accumulation (Greece, 2006-2017)



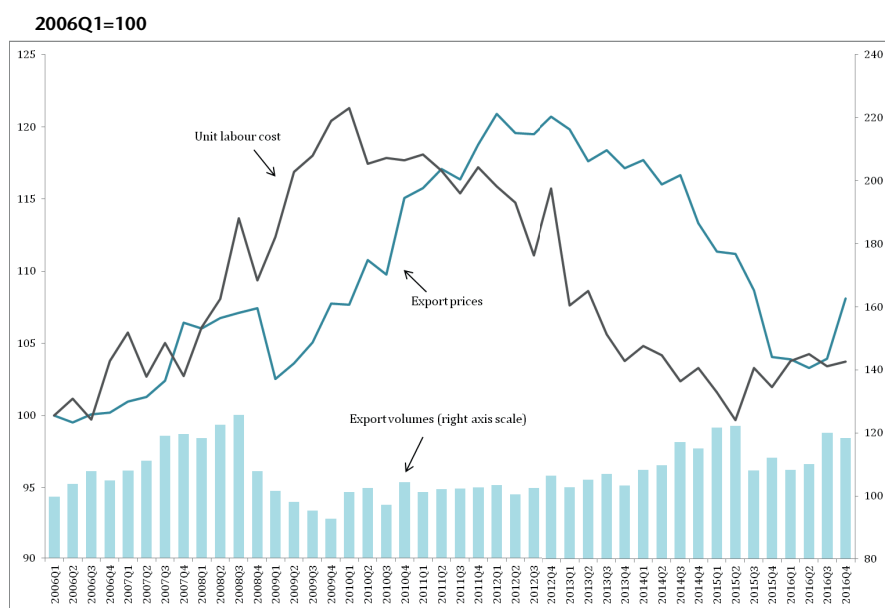
Note: Forecast values for 2017.

Source: AMECO.



On top of that, internal devaluation has proven incapable of propping up Greece's export performance. In fact, while the Greek economy has slid into a deflationary phase from the start of 2012 and unit labour cost has dropped substantially over the adjustment period, export prices of Greek goods and services, at least up to the fourth quarter of 2012, have remained on a strong upward trajectory (see Figure 7). Subsequently, the price competitiveness of Greek exports has improved substantially, but this development has not resulted in any notable rebound in export growth that could substantiate an export-led transformation of the Greek economy. Greece's exports of goods and services have on average expanded at a particularly modest rate between 2012 and 2016, hardly outstripping 2.3% per year, despite the strong growth of the country's tourism industry from 2013 on.

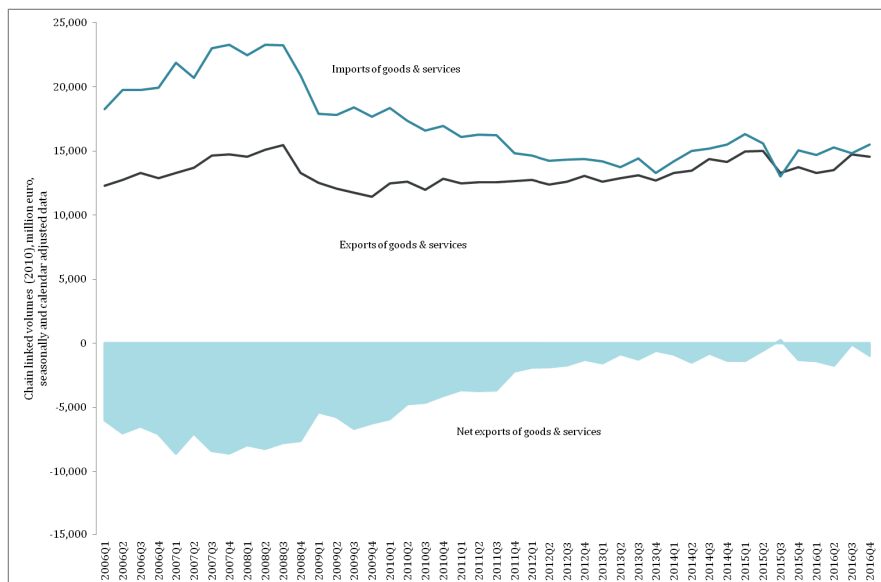
Figure 7. Unit labour cost, export prices and export volumes of goods and services (2006Q1-2016Q4)



Source: Eurostat, OECD (authors' calculations).

It becomes apparent that the most prominent contributor to the correction of the country's persistent current account deficits has been the dramatic decline in imports (Figure 8). From the second quarter of 2010 until the second quarter of 2016, imports of goods and services have contracted by 12% mainly due to shrinking domestic demand. Nevertheless, it is worth noting that the volume of

Figure 8. Exports, imports and net exports of goods and services (Greece, 2006Q1-2016Q4)



Source: Eurostat.

imports mildly recovered from the first quarter of 2014 on the back of slightly improved demand conditions, before dropping again abruptly in the second and third quarter of 2015 due to the imposition of capital controls and the ensuing drop in consumption and investment spending. Subsequently, slightly stronger private consumption fueled import growth in the last few quarters, which along with subdued export performance, inflated again the Greek trade deficit, thus weighting on economic growth. This sensitivity of Greece's trade balance to the movements of domestic demand underlines the country's productive deficiencies and highlights the critical role of public investment as a tool for fostering both macroeconomic stability and structural competitiveness.

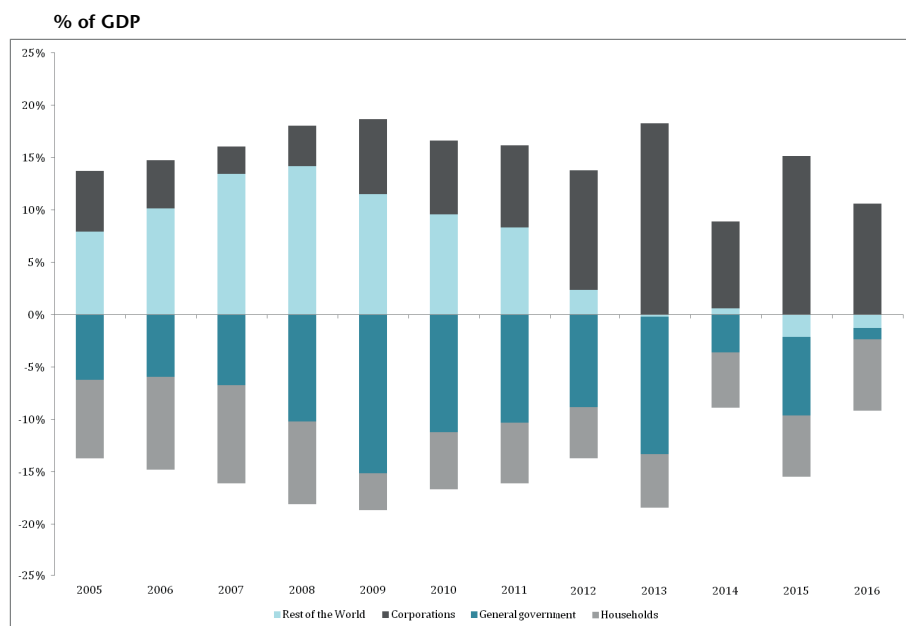
## 6.4. Austerity and the private sector's financial position

Apart from aggravating the economy's productive problems, internal devaluation and fiscal austerity have also put intense pressures on the financial balance of the private sector, thus feeding back economic stagnation and solvency risk. As depicted in Figure 9, the correction of the public sector's financial imbalance over the adjustment period<sup>16</sup> did not occur at a time of growing private invest-

ment. In addition, whereas the surplus of the external sector has recently smoothed out, any correction in the economy's trade balance has been inadequate to fully offset the contractive effect of austerity on internal demand and GDP growth.<sup>17</sup> Thus, it is clear that, in the absence of a sizeable current account surplus in the coming years, a new dose of austerity to achieve the programme's primary balance target of 3.5% of GDP in 2018 and beyond is very likely that will exacerbate inter-sectoral financial adjustments, thus undermining the capacity of the economy to reach its projected growth path.

The creditors' agenda has also corroded private households' financial health. Figure 10 supports this claim by exposing the evolution of household consumption and gross disposable income as a percentage of GDP over the period 2005-2016. Given the extent of tax evasion, it is evidenced that since 2012 the level of private consumption has started to exceed that of disposable income, with

Figure 9. Sectoral financial balances in Greece, 2005-2016

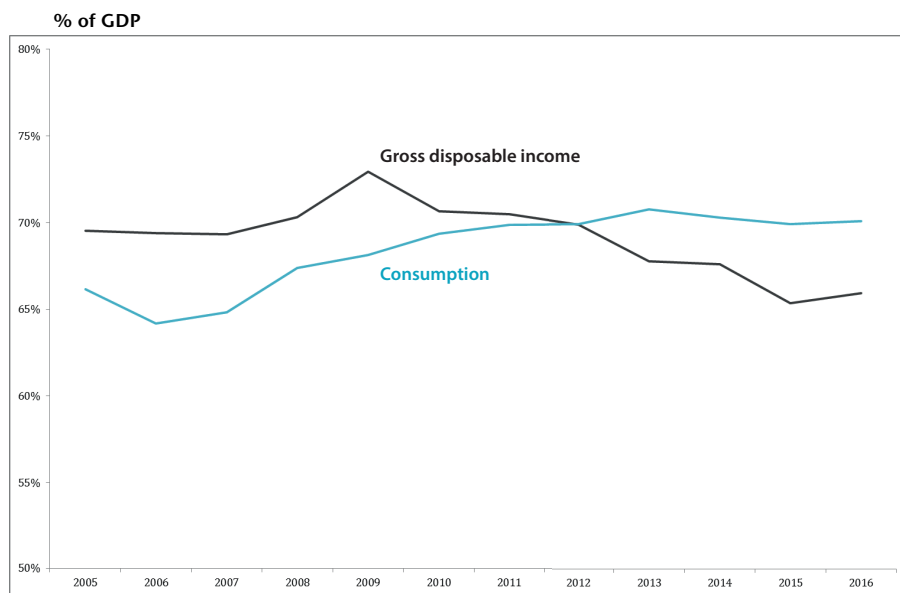


Source: AMECO (authors' calculations).

16. Recall that the public sector's financial deficit and corporations' financial surplus in 2013 and 2015 appear inflated due to recapitalisation of the Greek systemic banks.
17. Note that for the external sector a negative (positive) financial balance indicates a current account surplus (deficit). For a comprehensive analysis on balance sheet adjustments under a regime of fiscal austerity, see Kregel (2011) and Kregel (2015).

the underlying process continuing uninterrupted throughout the adjustment period. This trend implies a gradual drop in savings flows and deposits<sup>18</sup> in the household sector and results from the efforts of ordinary people to keep a decent level of consumption in a context of high unemployment and falling incomes. The plunge of household savings lies at the heart of the mal-performance of austerity in Greece for several reasons. First, it has starkly degraded the financial position of households, hence preventing any real prospect for a vigorous recovery of consumer spending in the near future. On top of that, it has exposed the Greek banking system to a greater credit risk by undermining the loan portfolio quality and the capital adequacy ratio of banking institutions. In fact, in 2016 the ratio of non-performing loans (NPLs) has climbed to 37%,<sup>19</sup> while according to the IMF the ratio has been even higher, i.e. close to 50% (IMF, 2016b). Last but not least, the squeeze of households' savings has severely limited citizens' taxpaying capacity, thereby sidetracking consolidation efforts and perpetuating financial instability through the 'bank-sovereign-nexus'.

Figure 10. Households' consumption and gross disposable income in Greece, 2006-2015



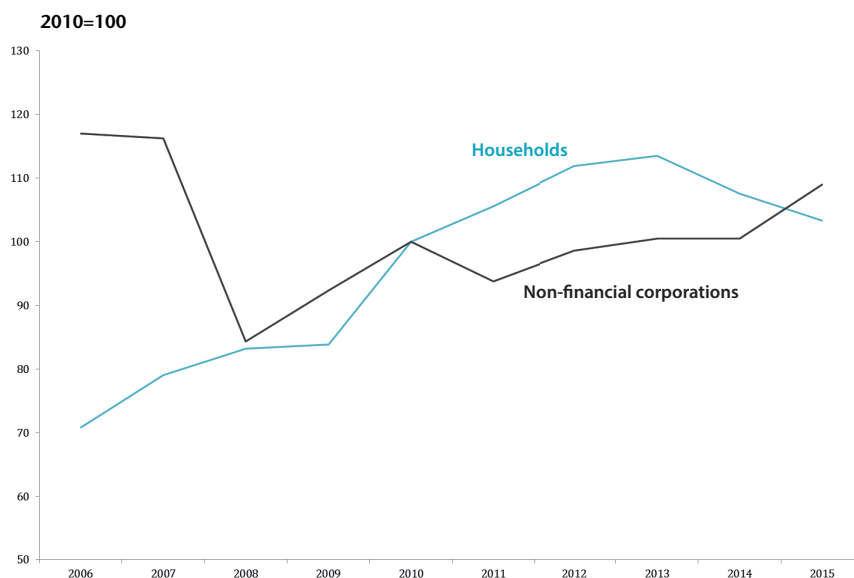
Source: Eurostat (authors' calculations).

18. Given households' negative credit expansion. On that issue, see below.

19. See World Bank database at: <http://data.worldbank.org/indicator/FB.AST.NPER.ZS>

The grave financial repercussions of the creditors' policy agenda are also reflected in Figure 11 that portrays the evolution of the debt-to-gross earnings ratio for Greek households and non-financial corporations (NFCs) from 2006 until 2015.

Figure 11. Households' and NFCs' debt-to-gross earnings ratio in Greece, 2006-2015

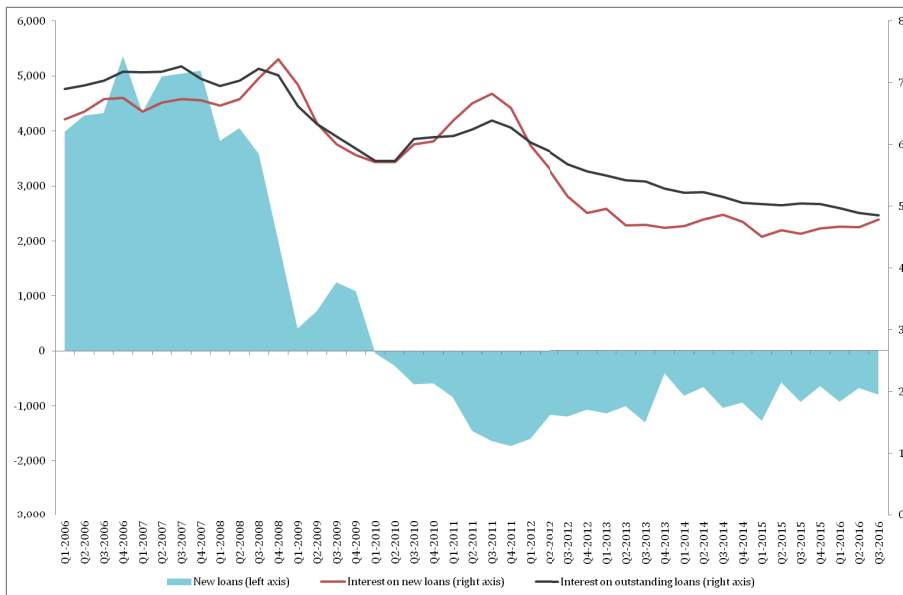


Source: Eurostat, Bank of Greece (authors' calculations).

It is clearly evident that the household debt ratio has been on a strong upward trajectory up to 2013 (i.e., a rise of 35.2% compared to the 2009 level), before falling in the period 2014-2015 thanks to the faster reduction of household debt than gross disposable income. Though, in the entire macro adjustment period, household debt has shrunk by 24 billion euros, while the corresponding fall in household disposable income has amounted to 43 billion euros, suggesting the highly fragile financial structure of the Greek household sector. Regarding NFCs, the relevant index in the same period has also grown, though more moderately, as a result of the stronger decline in gross operating surplus (-28%) than debt (-13%). In absolute terms, between the first quarter of 2010 and the first quarter of 2016 the cumulative reduction of NFCs debt burden has totaled 33 billion euros, indicating the process of deleveraging currently in motion that systematically chocks off the level of domestic demand in the economy.

Figure 12. Lending rates and new loans (Household sector, Greece)

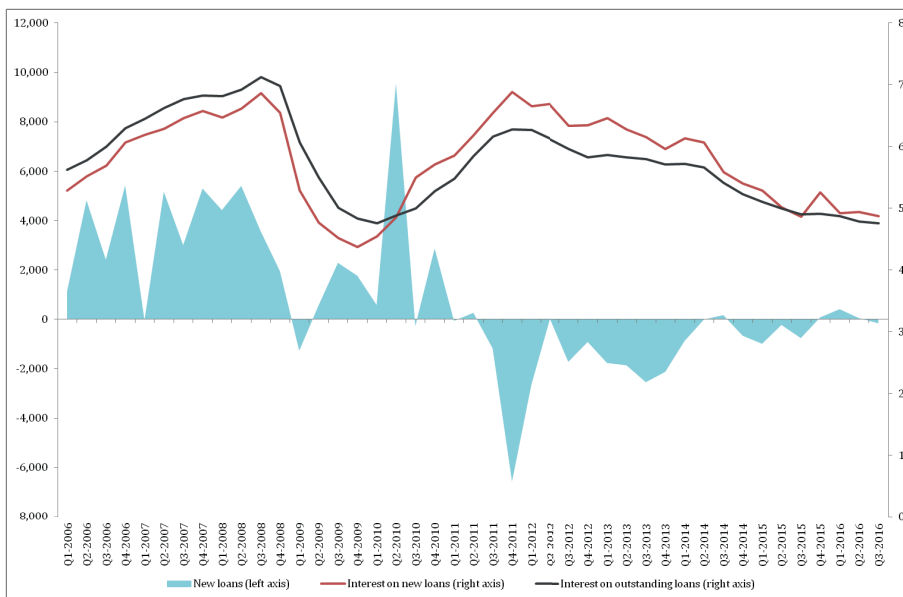
2006Q1-2016Q3



Source: Bank of Greece (authors' calculations).

Figure 13. Lending rates and new loans (NFCs, Greece)

2006Q1-2016Q3



Source: Bank of Greece (authors' calculations).

Figures 12 and 13 corroborate further this assertion, showing the level of lending rates and the volume of new loans to Greek households and NFCs between the first quarter of 2006 and the third quarter of 2016. It is easily inferred that the provision of credit to the private sector has been highly inelastic to the interest rate movements. Indeed, despite the significant reduction of interest rates since early 2012, credit supply to both households and NFCs has contracted by 23.5% and 20.1%, respectively, in the period between the third quarter of 2011 and the third quarter of 2016. This evidence reveals how austerity has impaired the lending channel, thus prolonging deflationary stagnation. This is particularly true for Greece, since households' investment had been a key driver of domestic demand in the pre-crisis era. Given the abrupt contraction of labour cost over the past few years, the evidence also suggests that disinvestment and feeble productive capacity in Greece should not be attributed to the elevated credit cost, but rather to the steep fall of effective demand that has discouraged NFCs' investment decisions and impaired their financial health. For the same reason, it is quite doubtful, whether Greece's anticipated entry to the ECB's QE programme would eventually have any substantial impact on growth and employment.<sup>20</sup>

## 6.5. Employment crisis, job precariousness and poverty

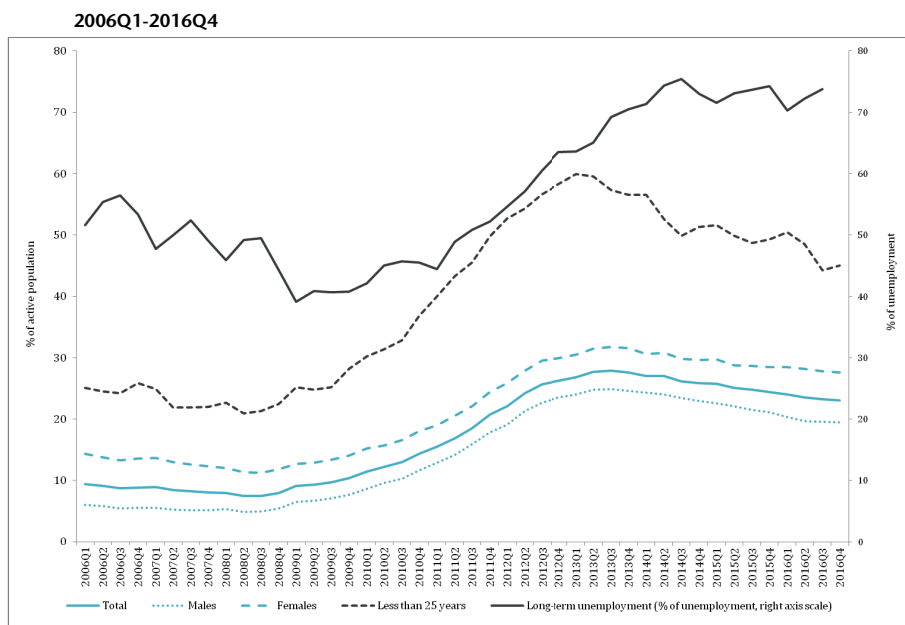
Creditors' internal devaluation strategy has also caused detrimental effects on the labour market and the living conditions in Greece. The unprecedented rise of unemployment rates gives a clear indication of the severe socio-economic disruptions of austerity. From the fourth quarter of 2008 until the fourth quarter of 2016 unemployment in Greece has recorded an unaccepted surge, climbing from 8% to 23.1% of total labour force. This change corresponds to an explosive increase in the total number of unemployed by more than 700,000 persons. Particularly disturbing are the data concerning the evolution of long-term unemployment (see Figure 14). In the third quarter of 2016 long-term unemployed people have amounted to as much as 73.8% of total unemployed (against 40.7% in the third quarter of 2009), meaning that over 800,000 persons have been forced to remain without a job for more than twelve months. This jump in long-term unemployment reveals the depth of the Greek crisis and confirms the widespread fear that much of the plight of unemploy-

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20. See iAGS (2017) on the limits of unconventional monetary policy to boost investment and thereby on the usefulness of a new fiscal policy mix for brightening recovery prospects in Europe.

ment acquires increasingly structural characteristics, despite the small decline in the unemployment rate over the last two years or so.

Figure 14. Unemployment rate by social group and long-term unemployment



Note: Data on long-run unemployment are available up to 2016Q3.

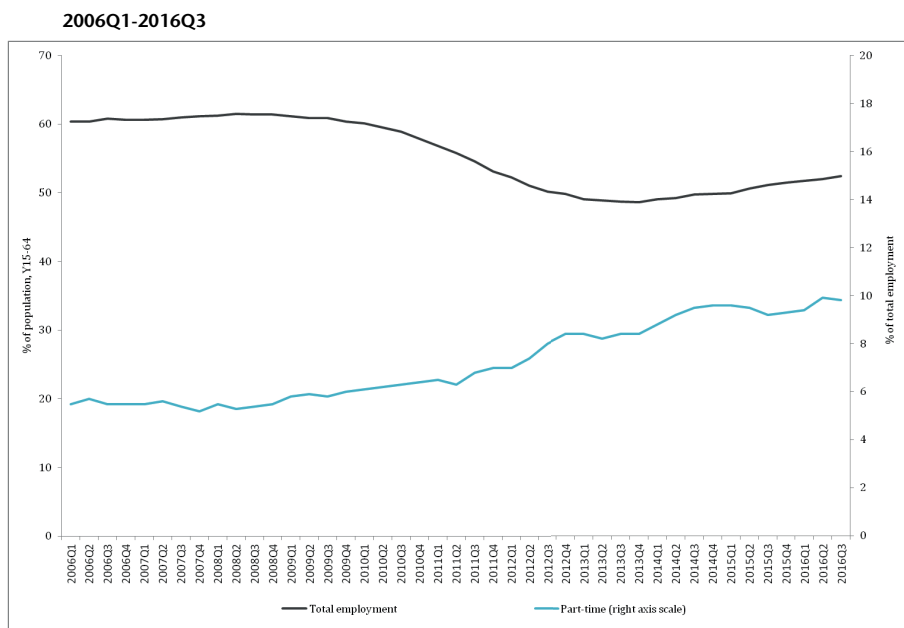
Source: Eurostat.

What is even more upsetting is that the scourge of high unemployment has mostly ravaged the more vulnerable groups within society. Figure 14 shows that the youth unemployment rate has hit a record high during the years of austerity, ascending by over 30 percentage points compared to the pre-programme period level. Despite the gradual drop in youth unemployment recorded recently, young people in the country find it very difficult to take up a job, with 45% of the labour force aged 15-24 years, i.e. a total of 118,000 persons, effectively remaining out of work. Furthermore, the female unemployment rate constantly surpasses the nation-wide average, standing at 27.6%. At the same time, the risk of unemployment threatens all, no matter what their educational attainment level—even those who hold a postgraduate degree. This evidence substantiates the role of demand-led economic policies for combating both cyclical and structural unemployment.<sup>21</sup>



A more complete picture of the adverse conditions prevailing in the labour market can be obtained by looking at some quantitative and qualitative aspects of employment. Figure 15 shows that the employment rate in Greece has virtually plunged, falling from 61.4% in the third quarter of 2008 to 52.4% in the third quarter of 2016.

Figure 15. Total and part-time employment rates



Source: Eurostat.

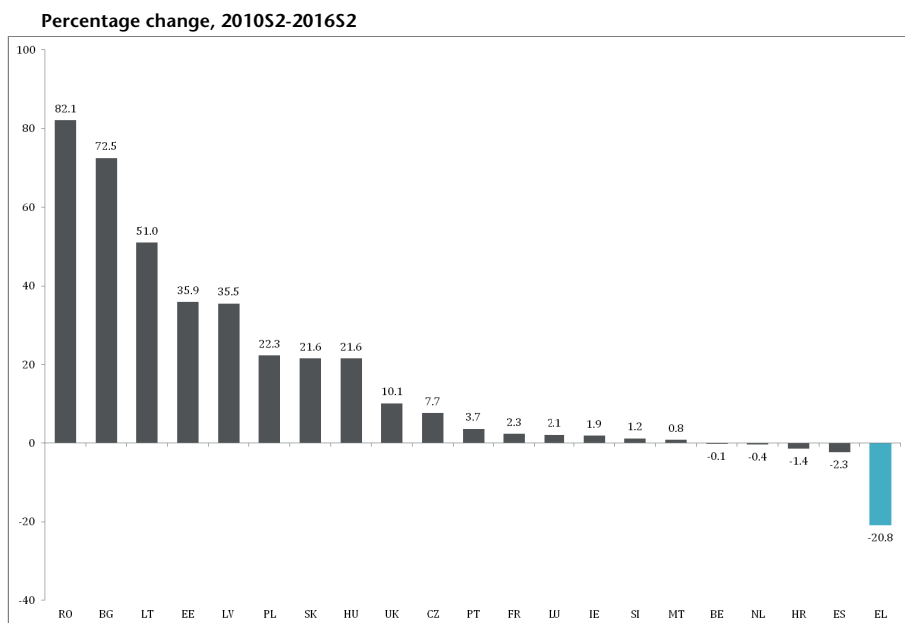
The steepest decline in employment has been observed in the construction sector, which has lost a total of 253,300 jobs, with manufacturing (188,200 losses) and wholesale and retail trade (172,000 losses) following suit. The sum of 613,500 jobs lost in those three sectors represents about 70% of the total employment losses which have occurred in the economy in recent years, indicating the sectors that have borne the brunt of the economic crunch and austerity. Besides the sharp contraction of employment, major changes have also taken place in working conditions and in the terms of employment. Specif-

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21. Antonopoulos *et al.* (2014) and Ioannidis and Pierros (2015) provide a detailed overview of the employment crisis in Greece and offer a proposal for combating unemployment through direct job creation programmes.

ically, the share of part-time work in total employment has increased within seven years by 4 percentage points (9.8% in the third quarter of 2016 against 5.8% in the third quarter of 2009), while that of involuntary part-timers has reached astonishingly high levels, standing at 72.6% of total part-time employees in 2015. All these transformations manifest a wider shift in the working environment and industrial relations in the country and reveal the impact of the creditors' policy agenda on expanding 'in work' insecurity and precarious employment conditions.

In addition, the real minimum wage level has registered a decline of 20.8% during the period between second semester of 2010 and the second semester of 2016 (see Figure 16) with an even greater decline for young people aged less than 25 years. Similar results are reached when comparing minimum wages across the EU calculated in terms of purchasing power standard. Greece has slumped from the 7th to the 11th place in the ranking among member states with a national statutory minimum wage, underperforming with respect to Spain and even to some new member states. It is worth mentioning that the abovementioned developments have been the direct outcome of the extensive amendments in labour law that have been requested by the creditors.

Figure 16. Real monthly minimum wage in the EU



Source: Eurostat (authors' calculations).

More specifically, since 2010 industrial relations in Greece have been in the eye of the storm of the crisis, being an integral part of the internal devaluation strategy. So far, a range of regressive labour market reforms has been promoted through active state intervention geared towards promoting flexible and precarious forms of employment and reforming collective bargaining.<sup>22</sup> Such measures *inter alia* include: the suspension of all branch and occupational collective agreements extension as long as Greece's economic adjustment programme is in full effect; the suspension of the so-called 'favourability principle' in collective bargaining; and the prevalence of company level agreements in the case of overlapping with the relevant branch level collective agreement.

Additional legal provisions have accompanied these arrangements, further challenging the institutional standing of trade unions and labour rights. In particular, a new legal framework has been enacted enabling non-trade union representatives (i.e. associations of persons), as well as firms with fewer than 50 employees to reach special company-level collective agreements. Also, far-reaching interventions have been undertaken in the content and universality of the general national collective agreement, including a 22% reduction by decree in the national nominal minimum wage and a further 10% cut for employees aged less than 25 years old; the enactment of legislation providing exclusive competence to the government, rather than to social partners, to set the minimum wage level; the introduction of special provisions regulating the setting of minimum wages for long-term unemployed and the removal of the 'universal applicability principle' of the general national collective agreement on wages.

On top of that, the duration of the 'after effect' of collective agreements has been curbed to three months. A special clause put in place also stipulates that in the absence of a collective agreement, then after a period of three months from the expiry or termination of the prior collective contract, only the terms regarding the basic wage and four allowances are applicable.<sup>23</sup> Besides, wage increases thanks to seniority contained in law and/or in collective agreements have all been suspended, while major legislative amendments have been adopted concerning the mediation and arbitration process. From 2012 on, recourse to arbitration is permitted only by the unanimous consent of all parties concerned and arbitrators' decisions are strictly limited only to issues related to the determination of the basic wage. It is obvious that these deregulation meas-

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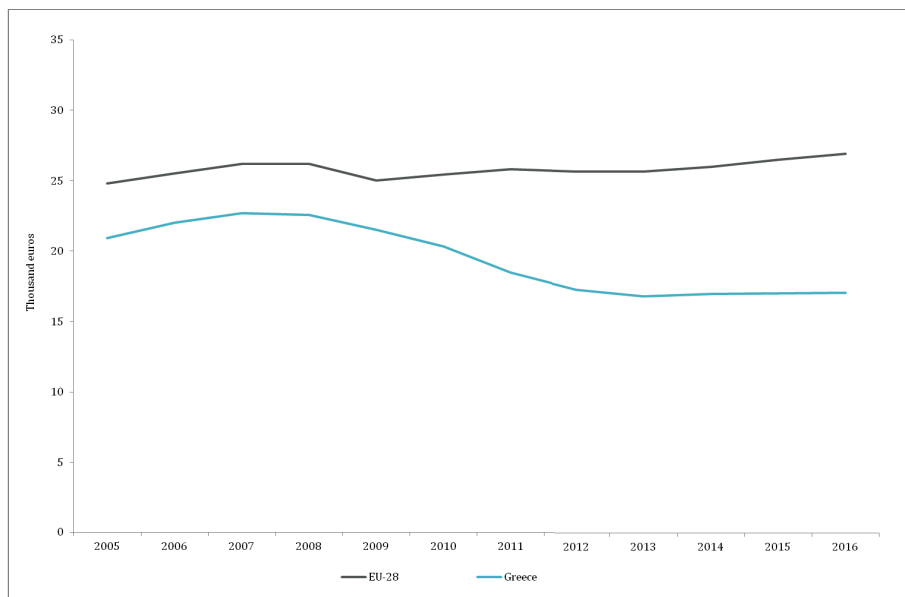
22. See Karamessini (2015) and Schulten (2015) for an overview of the labour market reforms imposed by the two Memoranda.

23. These allowances refer to seniority, child, educational attainment and hazardous employment.

ures undertaken over the last years have radically modified the balance of socio-political power towards employers, narrowing dramatically the range of choices and the bargaining power of trade unions. Certainly, this trend would intensify if additional arrangements related to industrial action and collective dismissals were to be undertaken as requested by the third bailout programme.

Unfortunately, the dismantlement of collective bargaining institutions and wage suppression have obstructed the path towards any socially inclusive economic restructuring of Greece. Besides, drastic cutbacks in social welfare spending have led to an unparalleled deterioration in living conditions, thus widening the development and income gap separating the country and the rest of its EU partners. As depicted in Figure 17, real GDP per capita in Greece has dropped by 24.5% in the period 2008-2016, standing today at nearly 17 thousand euros. This figure corresponds to only 63.3% of the average per capita real income in the EU-28 (compared to 86% in 2008), indicating a disturbing process of divergence between Greece and the EU in terms of living standards currently in motion. Even more worrying is the fact that this trend has not attracted sufficient attention in the current European policy agenda, despite its profound economic and political repercussions and the centrifugal dynamics it creates.

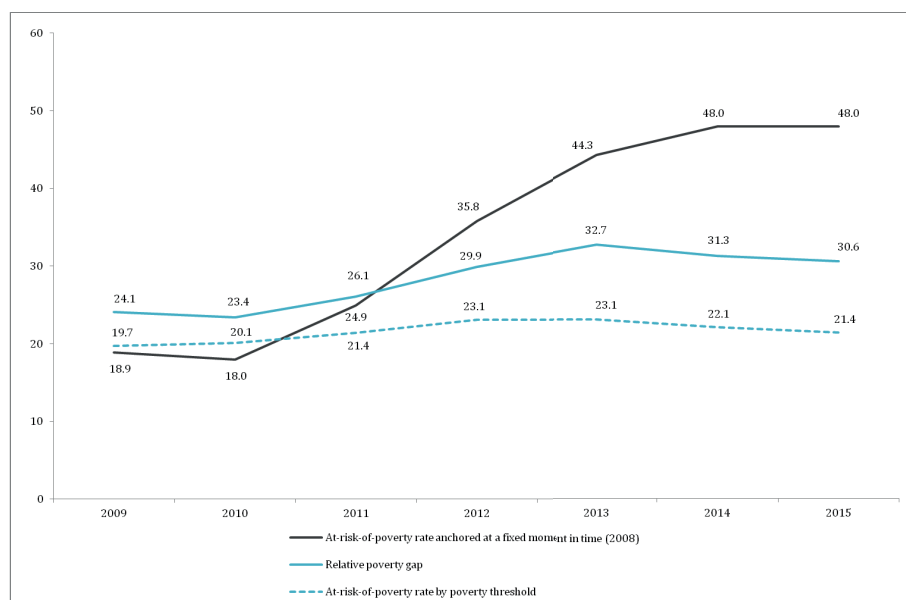
Figure 17. Real GDP per capita in Greece and the EU-28 (2005-2016)



Source: AMECO (authors' calculations), INE GSEE (2017).

In addition, the data suggest that relative poverty in the country has increased by 1.7 percentage points, from 19.7% in 2009 to 21.4% in 2015 (see Figure 18). It is important to note that the figure misrepresents the profile of poverty in Greece because this poverty indicator is computed on the basis of the median equivalised disposable (after taxes) income, which has plunged precipitately since 2009. Hence, a more comprehensive depiction of poverty developments in Greece gives the poverty gap index, which over the period 2009-2013 has markedly deteriorated, growing from 24.1% to 32.7%, before falling somewhat in 2014-2015. Despite this slight improvement, the figures underline the very large decline in incomes of the poorest subgroups of the society during the time of austerity; in other words that the poor are getting poorer.<sup>24</sup>

Figure 18. Key poverty indices for Greece (2009-2015)



Source: Eurostat.

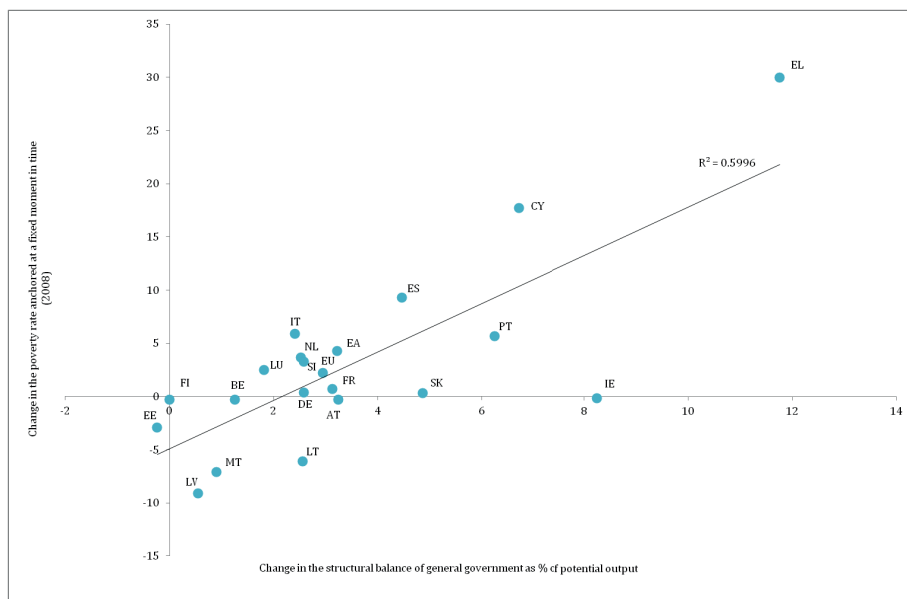
Moreover, looking at an alternative index of poverty, namely the poverty rate anchored at a fixed moment in time (2008), the evidence is more striking. It is found that in 2015 the share of total population with disposable income below

24. For a detailed analysis on recent developments concerning poverty and inequality in Greece, see also Giannitsis and Zografakis (2015) and OECD (2015a).

the 2008 poverty line has climbed to 48% (against 18.9% in 2009). This simply means that in 2015 the total number of people living in poverty has been more than double compared to that in 2008, or equally that almost 5 out of 10 people in the country have had disposable income below the 2008 poverty threshold.

Figures 19 and 20 disclose the role of creditors' policy in proliferating episodes of impoverishment in Greece. Figure 19 depicts the relationship between the size of fiscal consolidation and the change in anchored poverty rates in Greece and in other Euro area member states in the 2010-2015 period. It is evidenced that austerity has exerted a severe impact upon living conditions in Greece, leading to a dramatic upsurge of anchored poverty, thus underscoring the role of creditors' fiscal agenda in deteriorating living standards in the country.

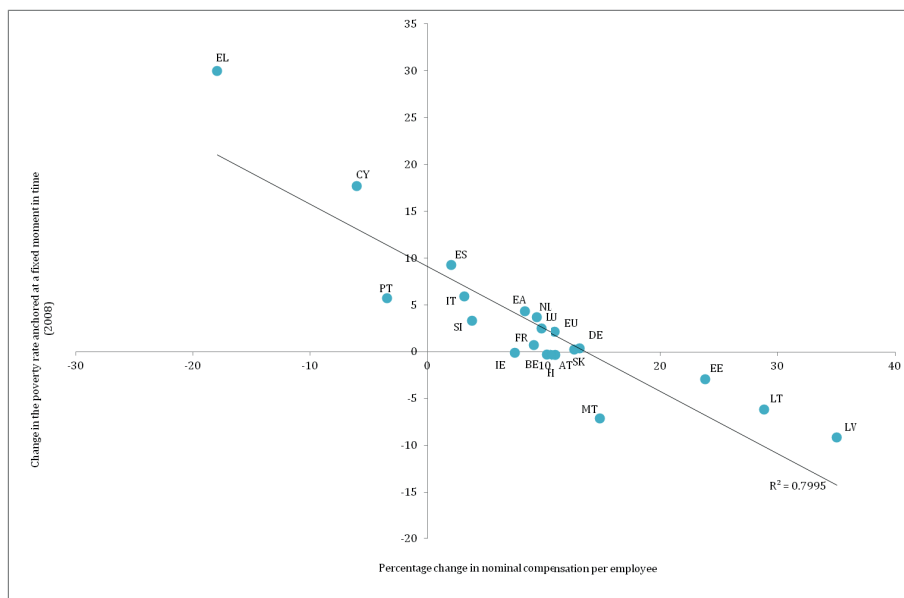
Figure 19. Fiscal consolidation and anchored poverty in the Euro area (2010-2015)



Source: Eurostat, AMECO (authors' calculations).

The same is also true for internal devaluation strategy and the trend of wage compression underway since 2010 (Figure 20). It is also important to note that, together with the striking increase in poverty, over the last six years an ever-growing part of the population in Greece suffers also from material deprivation. For instance, the latest data from Eurostat suggest that in 2015 53.4% of the country's citizens did not have the ability to meet unexpected, though neces-

Figure 20. Labour compensation and anchored poverty in the Euro area (2010-2015)



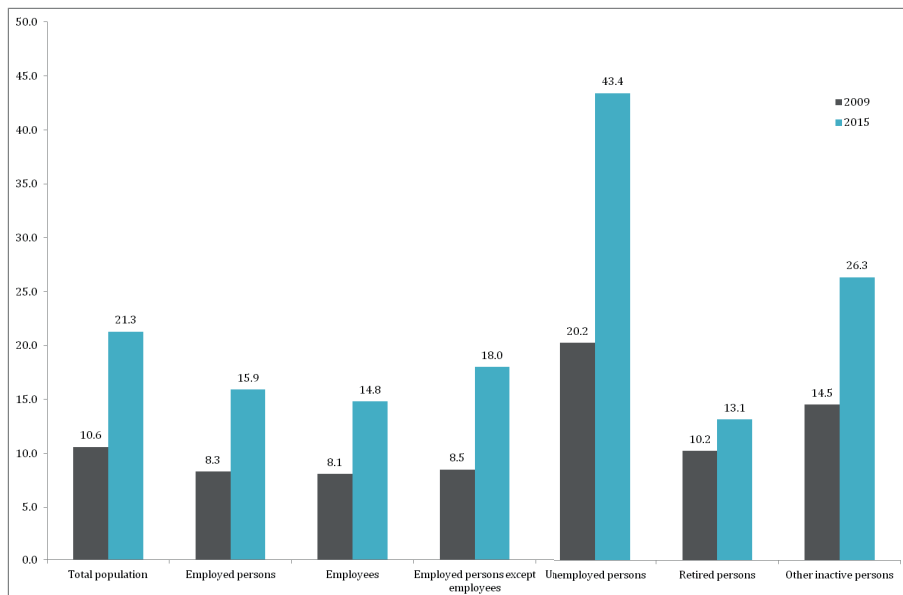
Source: Eurostat, AMECO (authors' calculations).

sary, expenses (against 26.6% in 2009), while the corresponding share of those facing difficulties to pay even regular expenses, including the rent, utility bills and mortgages, has risen from 28.7% in 2009 to 49.3% in 2015. Equally alarming is also the fact that nearly one third of the population (29.2%) in Greece is not able to afford heating expenses, compared to 15.7% in 2009.

What deserves special recognition is that the austerity agenda has impinged disproportionately upon the living conditions of different population groups (Figure 21). Whereas for the general population in Greece the index of severe material deprivation has more than doubled in recent years (21.3% in 2015 against 10.6% in 2009), it is the unemployed persons who have suffered the most from deprived living conditions. Specifically, for this population group severe material deprivation has risen from 20.2% in 2009 to 43.4% in 2015, meaning that more than 4 out of 10 jobless people do not have the means to meet at least four key requirements for decent life. This development highlights the worrisome degradation of Greece's social protection system over the macro adjustment period as a result of sizable public spending cuts and the retreat of the welfare state. Equally worrying and indicative of the worsening working conditions in Greece over the period 2009-2015 is the striking surge of severe

material deprivation episodes among employed persons by 7.6%, with 14.8% of employees and 18% of employed persons except employees in 2015 being severely materially deprived.

Figure 21. Severe material deprivation rate by activity status (Greece, 2009 and 2015)



Source: Eurostat.

Besides, the share of regular pensioners living under severely deprived conditions in 2015 has reached 13.1% (compared to 10.2% in 2009). In the same year, the corresponding rate for those who have opted to remain out of the labour force has been even higher, standing at 26.3% (compared to 14.5% in 2009).

## 6.6. The INE GSEE policy proposal for Greece to exit the crisis

Following the formal request of the Greek authorities for financial support from the ESM, in August 2015 the Greek government and the European Commission have concluded a third economic adjustment programme that shall accompany the country's financial aid of an amount of up to 86 billion euros for the period 2015-2018.<sup>25</sup> The specific terms and requirements of the agreement have been



set forth and compliance with them has been under the supervision of and regular reviews by the institutions (i.e. the EU Commission, ESM, ECB and IMF) as a precondition for loan disbursements to the Greek government.<sup>26</sup> The overriding objectives of the new MoU are the same as the previous two, namely to restore fiscal sustainability, secure stable financial conditions, improve competitiveness and modernise public administration.

Specifically, in the fiscal area, the programme imposes a wide range of reforms in order for Greece to achieve a primary budget balance of -0.25%, 0.5%, 1.75% and 3.5% of GDP in 2015, 2016, 2017 and 2018, respectively. On the revenue side, such measures include, inter alia, the modification of the VAT system, the removal of several tax incentives and exceptions, the restructuring of personal income tax schemes, the creation of appropriate mechanisms for filling revenue losses and strengthening tax enforcement. On the spending side, the Greek government is committed to controlling social expenditure by curbing healthcare spending and introducing a broad social welfare and pension reform agenda, involving strong discouragement of early retirement. The Greek authorities have also committed to taking any action required to correct any deviation from the fiscal targets. Up until the completion of the first review of the programme (June 2016), the Greek government had already legislated fiscal measures estimated to generate a net saving of 3% of GDP (5.7 billion euros) in the period 2016-2018. These measures have supplemented an initial 1.7% of GDP adjustment put in place in July and August 2015.<sup>27</sup>

To secure financial stability and improve liquidity conditions in the economy, the Greek government has also launched a procedure for the recapitalisation of the banking sector, improving the governance framework of the Hellenic Financial Stability Fund (HFSF) and resolving the problem of NPLs. To boost competitiveness and economic growth, an independent body of experts has also been set up entrusted with evaluating several labour market reforms, acknowledging international best practices. Despite that, the Greek government has also committed to not making any amendment to the current system

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25. The programme's content and objectives have been set in liaison with the ECB and with technical support from the IMF.

26. See Council implementing decision EU (2015) 2015/1411 and also 'Memorandum of Understanding between the European Commission acting on behalf of the European Stability Mechanism and the Hellenic Republic and the Bank of Greece', available at: [http://ec.europa.eu/economy\\_finance/assistance\\_eu\\_ms/greek\\_loan\\_facility/pdf/01\\_mou\\_20150811\\_en.pdf](http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/01_mou_20150811_en.pdf).

27. See EC (2016a).

of collective bargaining in the country and abstaining from any action that may endanger a shift back to past labour market arrangements that presumably are uncondusive to sustainable growth. Moreover, Greece has been requested to fully implement an extensive set of comprehensive product market reforms included in the OECD competition Toolkits I and II, open up closed professions, enhance energy market competition, ease investment licensing processes and activate large-scale privatisations, transferring valuable public-owned assets to an independent fund.<sup>28</sup>

Finally, to modernise public administration, the Greek government has committed to setting up a three-year action plan geared towards reinforcing and depoliticising administration structures. To this end, Greek authorities are required to rationalise wage bill in the public sector, connect pay with skills and efficiency, foster e-government and transparency and improve the procedures relating to the selection of managers and further promote employee mobility in the public sector. On top of that, special provisions have been laid down for combating corruption and dispensing justice, including the launch of a new framework concerning the funding of political parties, the insulation of the judicial system from political interference and pressures, speeding up justice and promoting e-justice. Last but not least, the government is also obliged to take action to improve the credibility and statutory independence of ELSTAT and support the autonomy of independent bodies.<sup>29</sup>

There is no doubt that Greece suffers from low-quality public institutions, as well as poor performing tax administration. In fact, according to the World Economic Forum competitiveness report, the country ranks only 17th among EMU member states in terms of government and public institutions efficiency (WEF, 2015-2016). At the same time, OECD data indicate that in 2013 the tax debt-to-net revenue collection ratio has surpassed 130% (OECD, 2015b), while VAT gap approached 28%, two times above the EU average (EC, 2016b). However, it is also true that any effort to upgrade public administration structures and improve tax compliance vitally hinges on people's living standards and trust on public institutions. In this regard, austerity is clearly an ill-advised way of achieving these goals. It is not only the deep recession that has suffo-

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28. The monetisation of these assets is planned to be used for debt repayment purposes, for covering part of the bank recapitalization cost and for financing investment projects in the country.

29. For further details and an updated version of the measures imposed by the third MoU along the abovementioned lines see the Supplemental Memorandum of Understanding (June 2016) available at: [http://ec.europa.eu/info/sites/info/files/ecfin\\_s mou\\_en.pdf](http://ec.europa.eu/info/sites/info/files/ecfin_s mou_en.pdf)

cated citizens' tax-paying capacity and skyrocketed pessimism about Greece's economic prospects.<sup>30</sup> It is also the erosion of core pillars of welfare state in the era of economic adjustment that had drag down confidence on public sphere.<sup>31</sup> In our opinion, modernising public administration and combating tax fraud and corruption presuppose a stable macro and social environment necessary to restore trust on public institutions and build social consent to the need of reform. Yet, this, first and foremost, calls for a pragmatic and viable programme for stimulating employment and economic growth.

Thus, bearing in mind the adverse socio-economic consequences of the two previous adjustment programmes, the third MoU leaves no room for optimism for the country's economic and social conditions in the near future. It is far from evident that Greece needs to shift away from the creditors' failed austerity experiment and embark on a credible recovery strategy. The INE GSEE policy proposal is built upon three pillars that are fully compatible with the particular features of the country's growth model, putting employment creation at the epicentre of the effort to deliver economic, social and financial stability in Greece.<sup>32</sup>

### **Pillar 1: An alternative debt crisis management framework**

Austerity has evidently failed to fulfil one of its chief stated goals: to restore public sector's solvency and help the country regain access to private bond markets. Therefore, a fundamental change in the financing architecture of Greece's debt management strategy is urgently required. In our view, the public debt is sustainable when it can be served. For that reason, we propose a new financing architecture in line with the principle: 'sustainable primary surplus-sustainable debt'. Sustainable primary surplus is the one derived by the country's growth performance and the underlying social conditions. It is not the one achieved by austerity, which is both futile and socially unfeasible. Hence, at a first stage, a new financing architecture is crucially needed that would set the

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30. The Eurobarometer survey published in December 2016 shows that 97% of citizens in Greece consider the economic situation as bad, while 64% and 61% of those questioned expect a further deterioration of employment and economic conditions, respectively, in the next year (see Eurobarometer, 2016).

31. For instance, in the period 2009-2014 public expenditure (measured in terms of real per capita euros) on public health, education and social protection in Greece has plunged by 45.6%, 16.3% and 15.1%, respectively (INE GSEE, 2017). Moreover, in 2014 the percentage of citizens having confidence in national government has declined by 19 percentage points relative to 2007, standing at only 19% (against 42% in the OECD economies). See OECD (2015c).

32. For a more detailed presentation of the INE GSEE proposal see INE GSEE (2015).

annual interest payments at least equal to a lower, pre-specified sustainable primary surplus target. If so, the public sector would stop accumulating new debt, thereby increasing its credibility and solvency in capital markets in an environment conducive to social cohesion. In this context, debt-restructuring does not necessarily imply a 'haircut', but a new repayment schedule and much lower average interest rates.

## **Pillar 2: Interventions for stimulating domestic demand**

The Greek economy is a consumption-led growth economy (INE GSEE, 2015). This structural constraint should be taken into account in any policy aiming at delivering macroeconomic stability in the short-term. At the same time, an investment-led productive transformation of the Greek economy is also essential in order for Greece to be put on a sustainable growth track and address its long-lasting competitiveness problems. In fact, empirical evidence indicates that stimulating productivity by means of increasing investment spending by 9% per annum over the period 2010-2017 would have produced the same competitiveness gains in terms of real effective exchange rate as the ones caused by cutting wages, without the recessionary effect of the latter option. In particular, the contribution of the investment spending stimulus to GDP would have amounted to as much as 2% per year, leading the debt-to-GDP ratio to decline to 120% by 2016. It is also important to note that the net cost of the plan would have been 32.9 billion euros, thus being far less than the total volume of bail-out loans granted to Greece since 2010.<sup>33</sup>

Alternatively, a sizable amount of funds for financing this project might be provided by the so-called 'Juncker Plan' and/or through the appropriate restructuring of EU funds, the expansion of EIB functions and the attraction of FDI. In any case, this project should be designed so as to provide support to selected sectors and activities that have strong multiplicative effects on actual and potential output and in which Greece possesses significant comparative advantages, such as: (a) agriculture and food industry; (b) high-quality and sustainable tourism activities; (c) sustainable energy networks and green power infrastructure; (d) high and medium-high technology manufacturing sectors (e.g. refined petroleum products, manufacture of chemicals and chemical products).<sup>34</sup>

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33. For further details about this proposal see Passas and Pierros (2017).

34. On empirical evidence that suggest the importance of mobilising invest funds to certain manufacturing sectors, see Argitis and Nikolaidi (2014b).

Nonetheless, given Greece's consumption-led growth model, reviving real investment activity can be stamped with success only if it runs in parallel with measures geared to stimulating employment in the economy. In this respect, we propose the design and activation of a 'Job Guarantee Programme' (JGP) in Greece. The idea heavily draws on Hyman Minsky's view on the function of the state as an 'Employer of Last Resort' (ELR) and the imperative for it to act so in times of crisis and soaring unemployment.<sup>35</sup> In our view, a policy intervention of this sort is of profound relevance to Greece, given the substantial contribution it could make to re-establishing sound macroeconomic and financial conditions in the country. Recent empirical studies have justified the case for embarking on a JGP on the back of its strong positive (both direct and indirect) impact on employment and thereby on GDP growth, private sector balance sheets, tax revenues and ultimately on the public sector's financial status.<sup>36</sup> This latter effect provides the crucial linkage between the first and the second pillars of our policy proposal and it is where employment creation becomes highly important for resolving the debt crisis. To the extent that the primary surplus would ensue from the growth-stimulating effects of the programme, such a surplus would become practically sustainable and could be used for covering Greece's annual interest payments.

### **Pillar 3: Re-regulating labour market**

To expand employment and economic growth in Greece, it is also vital the immediate abolition of the measures taken recently in the direction of greater labour market flexibility and the adoption of a new, socially inclusive reform agenda for reshaping labour market conditions. In this context, a range of policy interventions that could serve this goal includes, *inter alia*, the full restoration of collective bargaining system, the unconditional application of all collective bargaining agreements and the re-establishment of all legal provisions guiding the mediation and dispute settlement procedures in the pre-crisis period.

The abovementioned pillars incorporate the distinctive structural aspects of the Greek economy and are fully consistent with the complex institutional setting in which it is embedded. Thus, they deal a decisive blow to both the causes and effects of the crisis and offer an immediate relief from the current unfortunate conditions, without putting Greece's participation in EMU at stake.

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35. See, for instance, Minsky (1986) and Papadimitriou and Minsky (1994).

36. See Antonopoulos et al. (2014) and Ioannidis and Pierros (2015).

### Simulations of INE-GSEE's policy proposal

In order to evaluate the impact of our policy proposal on Greece's solvency prospects,<sup>37</sup> we have opted for three different scenarios and calculated the scale of a JGP required to build in 2020 a primary fiscal surplus equal to interest payments. In our baseline scenario, we have estimated the size, as well as the growth and fiscal effect of a JGP needed to satisfy the solvency condition under the present interest obligations of Greece. Scenarios 1 and 2 incorporate an adjustment of the interest payment schedule by 30% and 60%, respectively.<sup>38</sup>

**Table 3. Simulation results under different policy scenarios**

	Baseline scenario	Scenario 1	Scenario 2
Real GDP growth in 2020 (%)	2.4%	1.7%	0.9%
Fiscal surplus in 2020 (% GDP)	3.5%	2.5%	1.5%
Cumulative size of the JGP	280,000	197,000	102,000
Reduction of unemployment by 2020 (% of labour force)	7.5%	5.5%	2.5%

Source: IMF (2016c), authors' calculations.

Table 3 illustrates the results of our simulations under the aforementioned scenarios. In our baseline scenario, real GDP should grow by 2.4% in order for the public sector to achieve a primary surplus of 3.5% of GDP necessary to restore its financial solvency in 2020. The cumulative size of the JGP needed to satisfy the solvency condition amounts to 280,000 (direct and indirect) jobs, leading to a reduction of unemployment by 7.5%. Adjusting interest payments by 30% (scenario 1), the primary surplus target falls to 2.5%. To achieve it, the required growth rate declines to 1.7% in 2020, while the size of the JGP sufficient to reach this rate lowers to 197,000 jobs, thus causing a 5.5% drop in

37. Note that according to our estimates, the achievement of a primary surplus of 3.5% of GDP in 2018 would be insufficient to ensure a solvent fiscal regime and fulfil the country's annual interest obligations, thus paving the way for the introduction of additional austerity measures.

38. In all simulations, we have assumed that public expenditure remains frozen until 2020 and then it rises proportionally to real GDP growth. Moreover, government revenue increases with GDP at a constant rate equal to the 2016 effective tax rate (0.44%), while all other variables, such as investment and export, are assumed to remain constant.

unemployment. Finally, in scenario 2, which assumes a 60% interest adjustment, the primary surplus necessary to restore public sector solvency stands at 1.5% of GDP. This target can be met by a real GDP growth rate of 0.9% attained through the creation of 102,000 new jobs. Under this scenario, the ensuing decline in unemployment reaches 2.5%.<sup>39</sup>

It becomes clear that re-establishing the fiscal solvency of Greece involves a combination of employment (and/or investment)-driven growth and debt restructuring that revises primary surplus targets. It is worth noting that the precise way of achieving this restructuring is important, but not critical. The most critical element is that any rearrangement of Greece's financial obligations should be compatible with and responsive to the achievement of a sustainable primary surplus. For this to happen, it is crucial to pave the way for the immediate transition of the Greek economy to an environment of faster economic growth and improved living standards.

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39. Undoubtedly, the fiscal and macro performance will be even better if the economy simultaneously experiences a positive investment shock.

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## APPENDIX

### An analysis of Greece's debt sustainability

In this annex, we try to assess whether Greece's public debt stock is still a cause for concern—implying that some form of assistance or restructuring would be needed—or if it can be considered as sustainable.

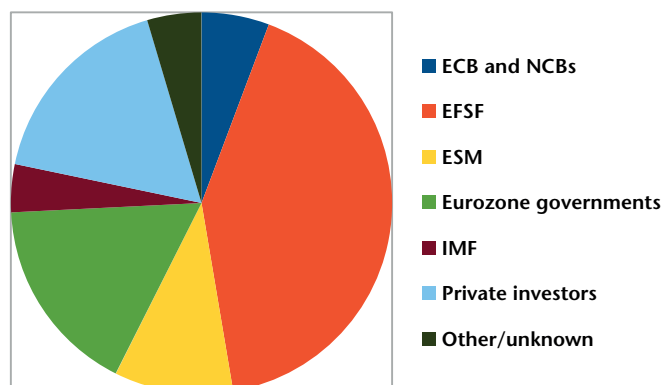
Three scenarios will be considered: the first one corresponds to our assessment of the situation as of today, without no further assistance or debt relief; the second one corresponds to the implementation of the short-term and medium-term debt relief measures contained in the Eurogroup statement of 5 May 2016; and the third scenario corresponds to a possible solution for making the debt sustainable at virtually no financial cost for member states.

#### Level, composition and characteristics of the debt stock

By the end of 2016, the gross public debt of Greece, in the sense of Maastricht, amounted to 315 €bn, that is 179.7% of GDP. Even though in face value terms this represents a significant decrease from the maximum reached in 2011 (356 €bn), the picture is different when looking at the ratio to GDP: it has been on an upward trend, despite the 2012 restructuring, because of the dramatic fall of nominal GDP.

Figure A1 shows the share held by each creditor category in the total debt stock. Following the 2012 restructuring, official creditors now hold about three quarters of this debt stock; in particular, the EFSF and the ESM together hold more than half of the debt.

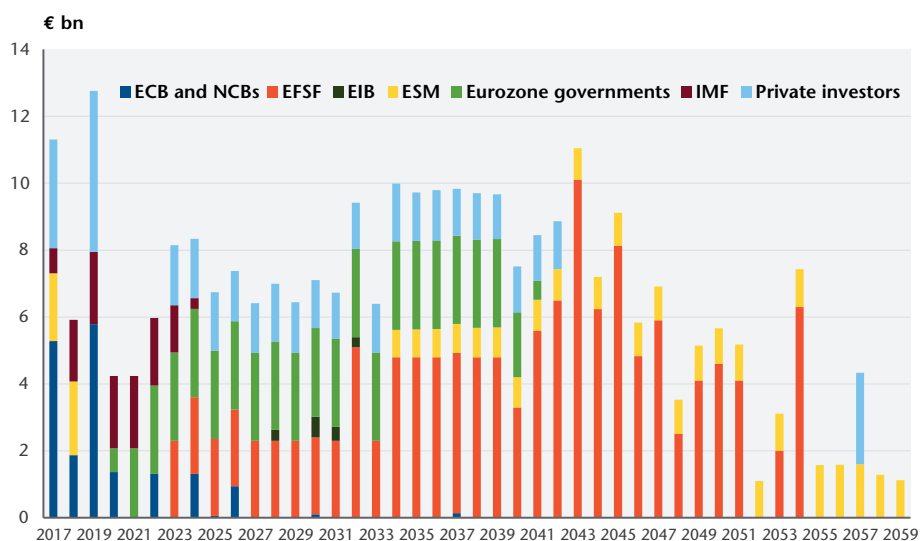
Figure A1. Creditor composition of the debt stock



Sources: Greece's PDMA, Thomson Reuters Eikon, IMF, ESM, European Commission.

Figure A2 shows the repayment profile of the debt principal, by creditor category (excluding short-term debt). In the short run, most repayments go to the Eurosystem (mostly corresponding to bonds purchased through the Securities Market Programme that were exempted from the 2012 restructuring), to the IMF, and to private creditors (medium-term bonds issued in 2014). In the years 2020-2040, the bulk of repayments concern bilateral loans from Eurozone governments (through the Government Loan Facility, GLF henceforth), EFSF loans and private investors (new bonds emitted during the 2012 restructuring). The ESM loans are those with the longest horizon, the last one maturing in 2059.

Figure A2. Debt principal repayment schedule, by creditor excluding short-term debt



Sources: Greece's PDMA, Thomson Reuters Eikon, IMF, ESM, European Commission.

The fact that the bulk of the debt consists in very long-term loans (EFSF, ESM, GLF) does not however mean that Greece is protected from interest rate risk. Indeed, all these loans are serviced at a variable interest rate (indexed on the EURIBOR for the GLF, and at financing cost for EFSF and ESM). The perspective of the normalization of monetary policy in the Euro area is therefore a critical issue that could substantially impact Greece's debt sustainability; we return to this dimension below.

## Common hypotheses

A number of hypotheses are common to our 3 scenarios:

- 1 Principal and interest repayments.** In addition to the repayment schedule for official loans, we have constructed a detailed database of outstanding bond issues (including hold-outs from 2012), taking into account the specificities of some securities (inflation-linked bonds, GDP-linked securities, variable-rate coupons). Our data source is Thomson Reuters Eikon.
- 2 Potential growth.** For 2017 and 2018, we use the European Commission projections of -0.5% and -0.2% respectively; for subsequent years (until 2059), we use the estimates from the 2015 Ageing Report, that forecasts a gradual increase up to 2% in 2035, then an abrupt decline towards 1% per year.
- 3 Real growth.** It is the sum of the potential growth, the automatic closing of the output gap (based on the European Commission estimate of -9.8% in 2016, and with an automatic closing speed of 15% per year) and the effect of fiscal impulses (with a short-run multiplier varying between 0 and 1.5—depending of the sign and size of the output gap— and a long-run multiplier of zero)
- 4 Inflation.** It is assumed to return to the long-run ECB target of 2%, following a dynamic Phillips curve (with an output-gap elasticity of 0.5)
- 5 Fiscal policy.** We consider that maintaining a primary surplus of 3.5% of GDP over several decades, as assumed by the European Commission's debt sustainability analysis, is not realistic. We rather assume a long-run primary surplus of 1.5%, which is more realistic given historical records and the political instability that a larger surplus could engender. However, in the short run, a bigger surplus is generated as the output gap closes, before gradually fading away and converging towards the long-run value
- 6 Privatization proceeds.** Given the past poor records, we don't believe in the objective of 50 €bn cumulated expected proceeds. We rather assume that the rate of 3 €bn cumulated that has been observed over the years 2010-2014 is maintained, corresponding to about 0.3% GDP each year.
- 7 Risk-free interest rates.** We rely on market futures until 2026, which forecast an increase to 1.7% by that date; then we assume that interest rates gradually converge towards an equilibrium value of 3.8% (which is the sum of the long-run growth forecast for the Euro area of 1.5%, plus the ECB target of 2%, and a premium over the sum of the two).

- 8 Market interest rates for sovereign bonds.** We assume that the premium over risk-free rates is equal to 3.3 basis points for each point of the debt-to-GDP ratio over 60%. This is a conservative estimate, that was obtained using data for all the Euro area members except Greece (given the limited liquidity of Greece's bond).
- 9 Refinancing maturity.** The average maturity of new marketable bonds issued by Greece is assumed to be 7 years.

### a) Baseline scenario

In this scenario we analyze the likely path for Greece's public debt under the hypothesis that there is no new financial assistance programme after the current one (Greece returns back to the markets in 2019) and that no more debt relief measures are implemented. In particular, this means that among the short-term debt relief measures discussed at the May 2016 Eurogroup, the only one which is included in this scenario is the 2017 waiver for the step-up interest rate margin on the loan for the 2012 debt buy-back; the other measures having not yet been implemented, they are not considered in this scenario.

Given our hypothesis on risk premia, the interest rate at which Greece returns to the markets in 2019 is 4%, which is a quite optimistic hypothesis; this rate then increases first because of the normalization of monetary policy, then because of the snowball effect on the debt stock.

The official rates at which the ESM and EFSF lend are computed assuming that they continue financing themselves at risk-free rates, with an average maturity of 5 years as they currently do.

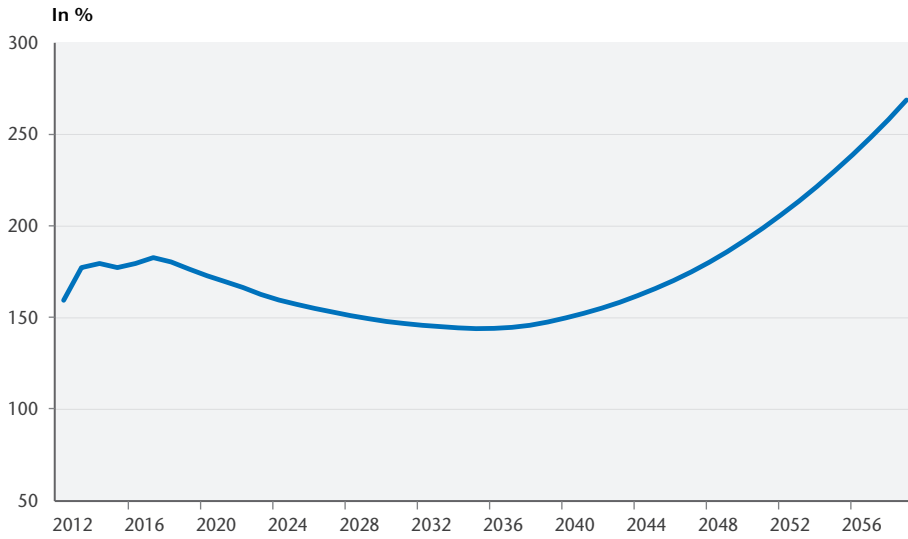
Figure A3 shows the path for the debt-to-GDP ratio under this scenario. It is highly explosive: after a decrease under 150% of GDP in the mid 2030s, the ratio starts to increase again because of the rise of the apparent interest rate (both because market rates increase, and because the share of official loans decreases).

Figure A4 pictures the trajectory of the primary surplus under this scenario: it first increases and reaches a peak at 2.9% in 2023, then decreases to 1.5% in 2031 and stabilizes there.

Another way of presenting this scenario consists in computing the long-run primary surplus that would be consistent with a stabilization of the debt-to-GDP ratio, all other hypotheses kept unchanged. In this case, the computation gives

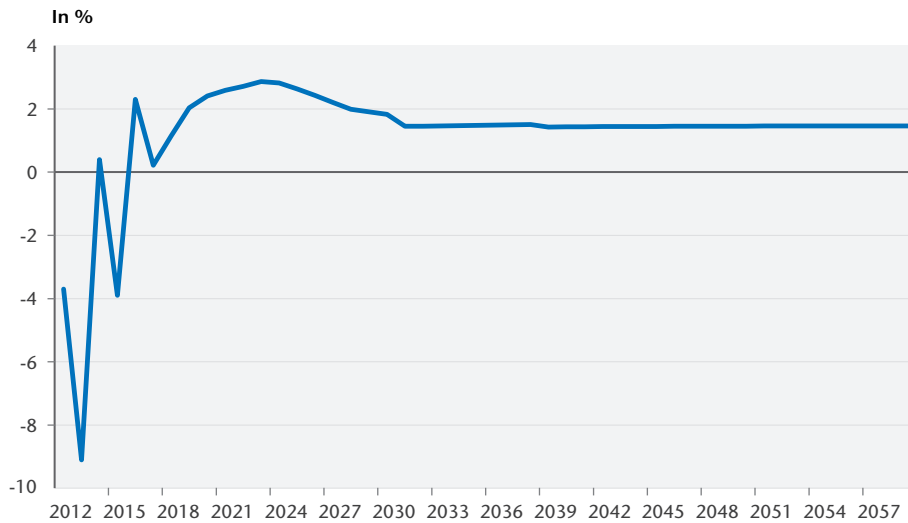
a primary surplus of 3.1% (to be maintained forever) in order to stabilize the debt at 119% of GDP. Such a long-run surplus is highly unrealistic however.

Figure A3. Baseline scenario, debt/GDP ratio



Source: authors' calculations.

Figure A4. Baseline scenario, primary surplus



Source: authors' calculations.

This analysis shows that under this scenario the debt is highly unsustainable: under a reasonable primary surplus hypothesis, the debt stock enters into a snowball dynamics. This justifies that some debt relief measures be taken.

### b) Limited debt relief scenario

Indeed, some debt relief measures have been discussed at the May 2016 Eurogroup, and this second scenario analyzes them. They comprise short-term measures (i.e. to be implemented before the end of the ESM programme) and medium-term measures (i.e. to be implemented at the end of the programme), which can be summarized as follows:

- changing the financing strategy of the EFSF and ESM in order to lock-in as much as possible the current low interest rates (given the expected increase due to the normalization of the monetary conditions); and additionally implementing a partial repurchase of the GLF loans by the ESM in order to lower interest rates;
- reprofiling the EFSF and GLF loans in order to increase the average maturity and to smooth the repayment profile;
- abolishing the step-up interest rate margin on the loan for the 2012 debt buy-back;
- restoring the transfer of SMP and ANFA profits to the Greek government.

Given that these measures have not yet been implemented, we need to make hypotheses for the first two of them.

Concerning the official interest rates, we make the hypothesis that the EFSF and ESM increase their average borrowing maturity from 5 years to 15 years, starting from 2017. This has the consequence of delaying the transmission of the risk-free short-term rates increases to Greece. We also assume that the GLF loans will now bear the same interest rate as the ESM ones (instead of a 50 basis points premium over the 3-month EURIBOR), i.e. we are implicitly assuming that these loans are repurchased by the ESM (therefore at no cost for member states).

Concerning the reprofiling of the EFSF and GLF loans, we make the hypothesis that their maturity is increased up to 2059, and that their repayment profile is smoothed (without a nominal haircut). Figure A5 gives the new principal repayment schedule hypothesis.

Figure A5. Repayment schedule under limited debt relief scenario

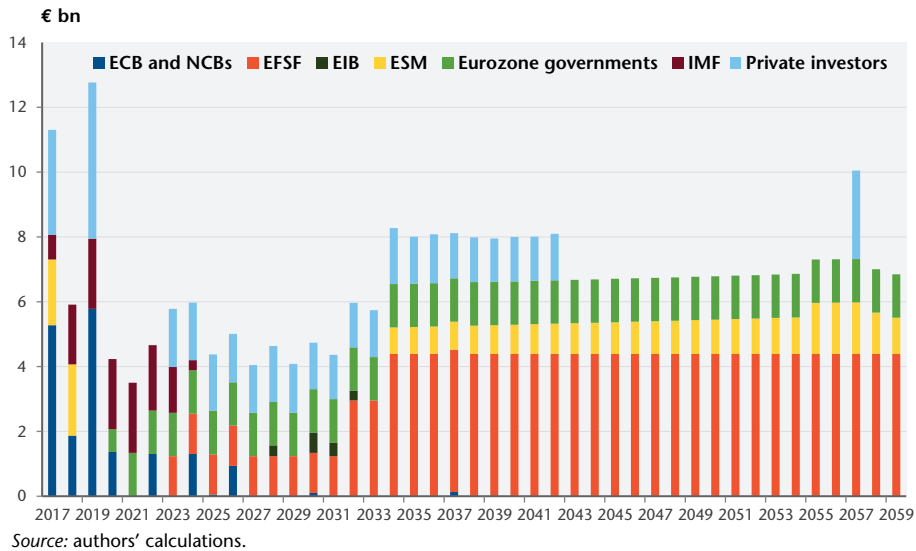


Figure A6 pictures the path for the debt-to-GDP ratio under this scenario. As one can see, the improvement is notable compared to the baseline scenario, but is still insufficient to make the debt burden sustainable.

Again, looking differently at this scenario, the long-run primary surplus required to stabilize the debt-to-GDP ratio (at 110%) is of 2.5% of GDP, which is still very high.

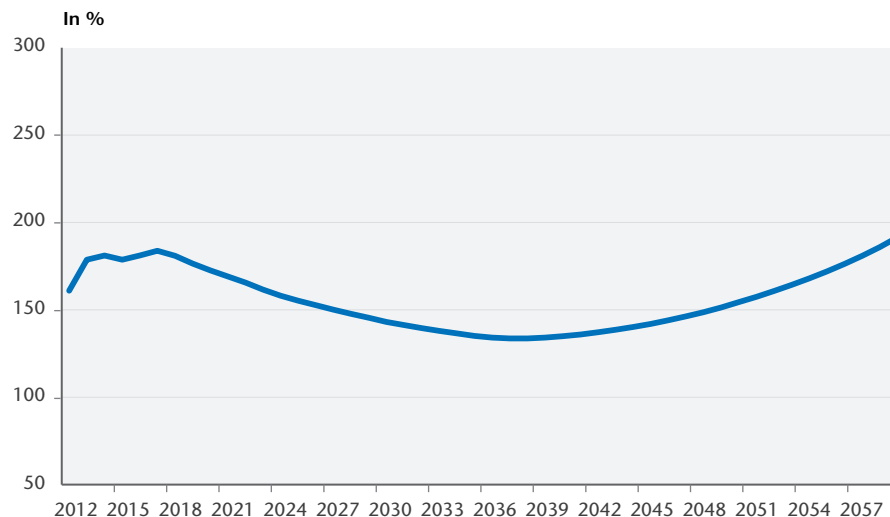
The conclusion of this exercise is that, even if all the promised debt relief measures are implemented by the end of the ESM programme, it is not realistic to expect Greece to go back to the markets and repay its debts over the long run. Said otherwise, an orderly completion of the programme and the planned debt relief measures are not sufficient to guarantee the membership of Greece within the Euro area. Further action needs to be taken.

### c) A possible solution for ensuring debt sustainability

This third scenario is based on the previous one, but adds a critical change: we now assume that Greece does not return to markets in 2019, but remains under financial assistance from the ESM, rolling over its debt by contracting new official loans. This process is assumed to last until 2050, after which Greece returns to financial markets.



Figure A6. Limited relief scenario, debt-to-GDP ratio



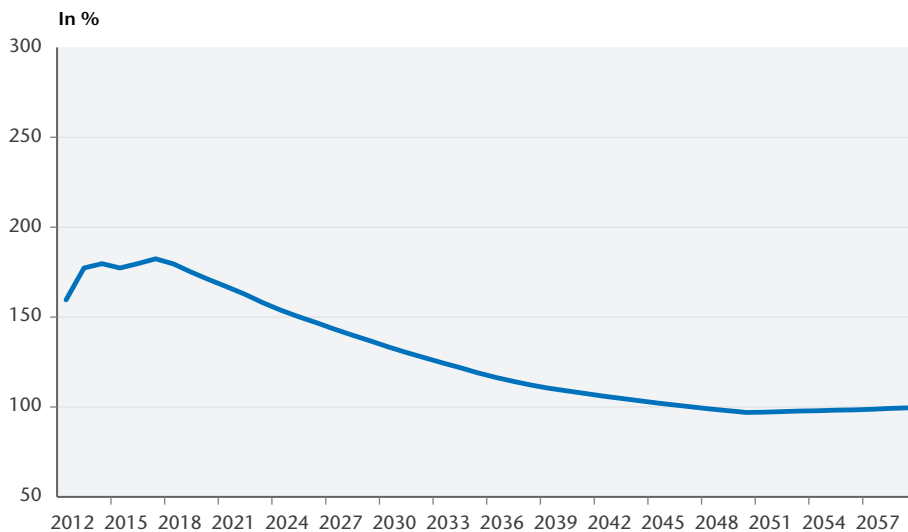
Source: authors' calculations.

Figure A7 plots the path of the debt-to-GDP ratio under this scenario. One can see that the debt stabilizes slightly below 100% of GDP at the end of the forecasting horizon: this is still significantly higher than the 60% target of the Stability and Growth Pact, but at least it would permit Greece to finance itself at reasonably low market interest rates.

It is interesting to note that this scenario comes at no cost for the other eurozone members. The improvement of Greece's situation under this scenario comes from the fact that it does not face the risk premium associated to its high debt burden. Said otherwise, this scenario is equivalent to a form of debt mutualization, under which Greece's debt is transformed (until 2050) into a risk-free debt guaranteed by the other member states. And this comes at no cost for these states, at least under the hypothesis that Greece does not default, which is a reasonable to expect given the sustainability of the debt burden.

Of course, even though the scenario that we describe is realistic from a purely economic perspective, one could still wonder whether it is from a political perspective. The major issue here being that Greece could consider that being under programme until 2050 is an unbearable loss of sovereignty, while the creditors could be reluctant to give a debt guarantee of such an amount for such a long time. In particular, this means that, if this solution is to become realistic, the management of the programme should be different from the one we have observed so far: Greece's sovereignty should be respected, imposed

Figure A7. Sustainable scenario, debt-to-GDP ratio



Source: authors' calculations.

austerity should be avoided as much as possible so that Greece can recover as fast as possible from its deep recession. It also means that, in creditor countries, the institutions and political representatives should communicate on the huge efforts already undertaken by the Greek people, and on the fact that the new arrangement comes at no cost for taxpayers.

Of course, there are many other ways to design a sustainable scenario. An alternative one could be to increase maturities even further, or to lend at more concessional terms (however implying a loss to creditors in net present value terms, even if not in face value terms).

Whatever the solution chosen, our analysis shows that there exists an economic solution that could make Greece's debt sustainable and secure its euro membership. Whether there is the political will to do so still remains to be seen.

## GERMANY IN THE POSITION OF LEADER

### OFCE-IMK

Given the size of its economy, Germany has always played a leading role in the construction of Europe. The country's recent economic performance has bolstered its position so much that Germany is now the undisputed leader of the euro zone, giving it additional influence on Europe's political scene, in particular relative to France and Italy, the second and third largest economies. The analysis by the German government of the crisis in the euro area and with respect to both the current and future state of European governance is clearly decisive.

Germany's economic success story is based on three elements. First, Germany is in a situation of almost full employment, even though the global economy has experienced the deepest recession since the 1930s. After the sharp blow to Germany's economy in 2009, it quickly recovered to match and then surpass its pre-crisis state. Second, Germany has been spared the sovereign debt crisis. German bonds have benefited from their status as risk-free assets, with interest rates falling so much that they are now negative on maturities up to seven years. Finally, since 2001, Germany has accumulated current account surpluses, reflecting its industrial and export strength and relatively subdued import growth. The recent acceleration of wages has not had any impact on the current account up to now.

Under the apparent success, however, Germany faces a number of structural challenges. These include demography, low public and private investment and sluggish productivity growth, inequality and qualitative labour market issues, and the vulnerability that comes with a large export surplus. Finally the issue of how German adjustment can be rendered compatible with that in the Euro Area as a whole needs to be resolved. Ultimately Germany cannot prosper if its neighbours remain mired in economic difficulties. It can neither unilaterally impose its strategy nor can it generate recovery on its own. We address these issues in turn in this chapter.

## 7.1. Why / in what way has Germany been doing better than its euro area partners since 2007?

The collapse in global trade that accompanied the beginning of the Great Recession in 2008-2009 engendered fears of a long-term downturn in German growth and a rise in unemployment (Blot & Kooths, 2010). The fall in GDP was in fact more marked in Germany than in the rest of the euro area (-5.6% in 2009, compared to -4.6%), due mainly to the negative impact of foreign trade (-2.6 points against -1.3 for domestic demand). So although the acceleration of Germany's growth between 2004 and 2007 had been based on its dynamic export industries, the growing share of exports in GDP (up from 23% in 1996 to 43% in 2007) seemed at first to be its Achilles' heel.

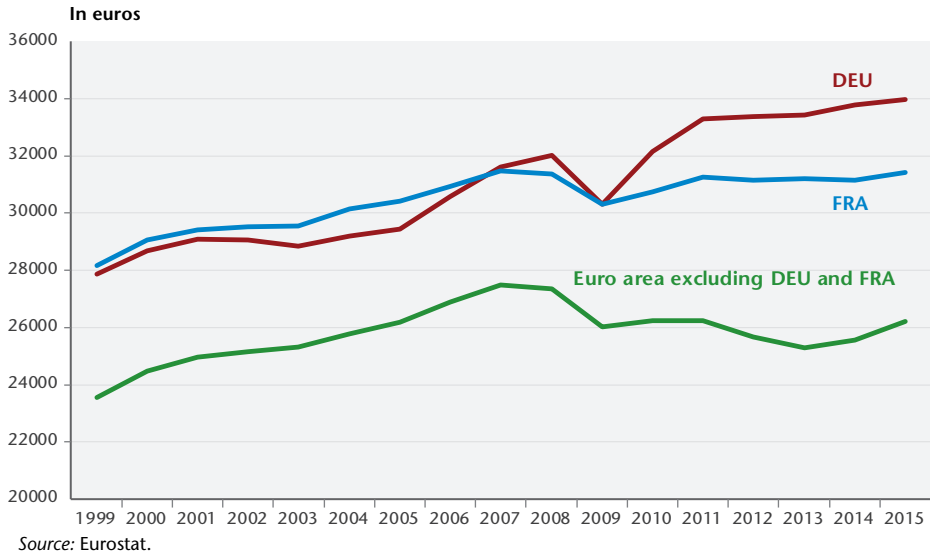
But this soon changed. On the one hand, the rebound in world trade starting in 2010 boosted Germany's recovery through the channel of foreign trade. On the other hand, growth gradually became more balanced due to domestic demand, which strengthened after the crisis (Table 1). Germany's growth picked up sharply in 2010 and 2011, and it remained a locomotive for the euro area, with GDP per capita rising faster than in the other countries (Figure 1). Furthermore, unemployment barely budged and then came down, and at the end of 2016, in November, stood at 4.1%, according to Eurostat, the lowest level of any euro area country. By cutting its budget deficit to below 3% of GDP in 2011 and then balancing the budget the next year, Germany was able to exit the excessive deficit procedure relatively quickly. Finally, Germany continued to set records for its current account surplus, which was over 266 billion euros in 2016, i.e. 8.5% of GDP.

Table 1. Factors contributing to German growth

	Internal demand	Consumption	Investment	External trade	Inventories	GDP growth
2000-2007	0.7	0.6	0.1	0.9	0.0	1.6
2008-2009	-1.0	0.8	-0.9	-1.3	-0.9	-2.4
2010-2015	1.4	0.9	0.5	0.6	0.0	2.0

Source: Eurostat.

Figure 1. Change in GDP per capita

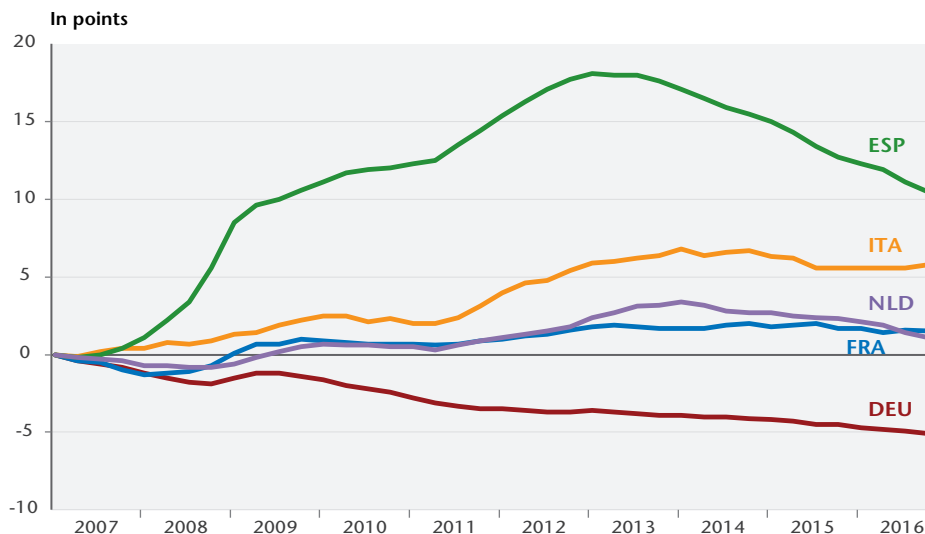


### a) The German labour market during the crisis

Despite the worst recession since World War 2, Germany's unemployment rate increased only slightly, by 0.7 percentage point, at the beginning of 2009. For the euro area as a whole, the level rose by two points between the first quarter of 2008 and the second quarter of 2010. Furthermore, while higher unemployment persisted in most of the other euro area countries, in Germany the rate began to fall in the third quarter of 2009 (Figure 2). Between the first quarter of 2007 and the end of 2016, unemployment fell by almost 5.1 percentage points in Germany, whereas it rose by 1 point in the Netherlands, 1.2 points in France, 5.2 points in Italy and 11 points in Spain. This contrast in the unemployment rate is undoubtedly linked to Germany's better performance in terms of growth but it also reflects population dynamics as well as the job-rich character of German growth.

Around the years the crisis hit, Germany's unemployment rate had benefited from slower growth in its labour force, particularly relative to other European countries, such as France, Spain and the United Kingdom. Between 2007 and 2010, its labour force grew by only 0.1% on average per year. The working-age population was declining over this period, but the labour force expanded due to an increase in the participation rate (of women and seniors). The labour force has been growing faster since 2011, with an annual growth rate from 2011 of 0.5%, and even reaching 0.7% in 2016.

Figure 2. Changes in the unemployment rate in selected euro area countries



Source: Eurostat.

The labour force participation rate is continuing to rise, but immigration has pushed up the working-age population once more (+ 0.5% between 2011 and 2015). After restrictions on the free movement of workers from the new EU Member States came to an end (mainly Poland, Romania and Hungary), the leading source of immigration has been Eastern Europe, followed by the countries in the crisis-ridden south of Europe, and then finally the Balkans and more recently countries torn by war (Syria, Iraq and Afghanistan). In this recent period Germany has needed to create more jobs than before in order to absorb this increase in the labour force while continuing to hold down its unemployment rate.

In addition to the impact of labour force trends, the reduction in the unemployment rate is greater when, for a given rate of economic growth, productivity growth is low. During the crisis period, in Germany an active strategy of safeguarding employment supported by the social partners and the government was part of the policy response. As a consequence, German business hoarded labour by resorting to several measures of working-time flexibility to temporarily reduce working hours like short-time work, a policy that was also supported by government subsidies, working time accounts and temporary reductions in collectively agreed working hours. There was therefore no net job destruction during the heart of the Great Recession. As a result, per capita productivity fell sharply, by almost 6% in 2009 and on average by 0.04 % per

annum between 2007 and 2011. So the slight pick-up in employment from 2011 (+0.8% on average between 2007 and 2011) was enough to bring down the unemployment rate. In the more recent period (2012-2016), per capita productivity rose by 0.58 % per year on average, accelerating since 2014 growing by 0.8 % in 2014 and 2015 and by 0.9 % in 2016.

Over the period 2007-2016 as a whole, economic growth has been more job-rich compared to the previous decade since per capita productivity grew by an annual average of 0.2%. As for the labour force, it increased only a little faster over the period 2007-2016 (0.4%) than from 2000 to 2007 (0.3%). The average increase of 0.8% in employment between 2007 and 2016 was therefore sufficient to lead to a rapid reduction in the unemployment rate.

On the other hand, in the most recent period, with productivity growing at 0.8% and the labour force up by 0.7%, growth needed to hit at least 1.5% in order to continue to push down the unemployment rate. This was achieved in 2016, when the rate was 1.9%. But this remains an important challenge in the current period when substantial numbers of immigrants must be integrated into the labour market.

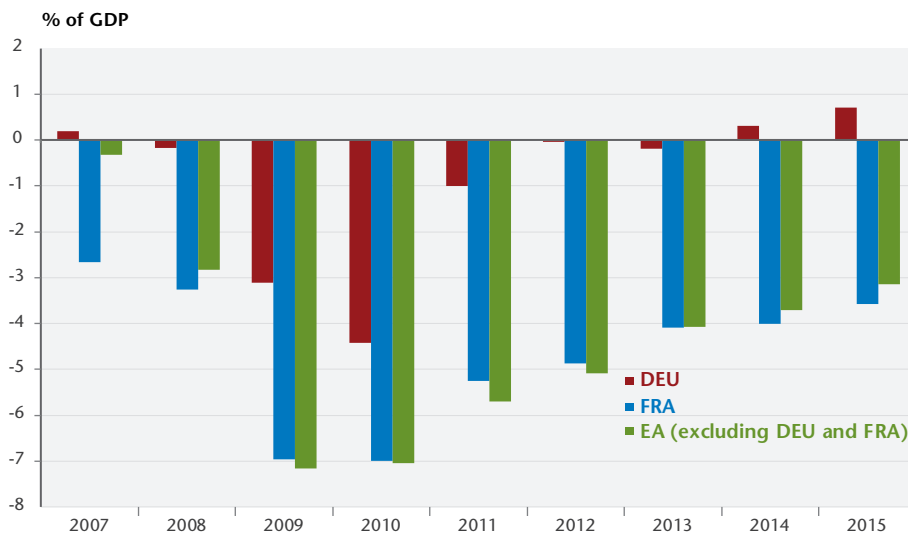
### **b) The public finances: Respect for the rules?**

Like many European countries, Germany's public deficit deteriorated rapidly during the crisis. Germany started with a budgetary surplus of 0.2 GDP point in 2007, but three years later ran a deficit of 4.2%, and so found itself, like many other European countries, with an excessive deficit according to the EU's fiscal rules.<sup>1</sup> Due to the automatic stabilizers, the recession reduced tax revenues and pushed up public and social expenditure. Additional measures to boost the economy as well as plans to support the financial sector led to a further worsening of the public accounts. However, the deficit was subsequently quickly cut and then a surplus of 0.3% generated in 2014, at a time when France's deficit still exceeded the 3% threshold (Figure 3). After peaking at 81% in 2010, Germany's government debt also began to decline, by almost 10 points in all by 2015.

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1. Under the Stability and Growth Pact, a country is considered to have an excessive deficit when the budget deficit exceeds 3% and when this situation is not justified by exceptional circumstances. A decision to put the country on notice is taken by the European Council at the recommendation of the European Commission.

Figure 3. Government balance 2007-2015



Source: Eurostat.

This improvement has enabled Germany to meet the requirements of the Stability and Growth Pact as well as those of the new “debt brake” in the country’s Constitution.<sup>2</sup> This rule requires the federal government to ensure that the structural deficit does not exceed 0.35% of GDP.<sup>3</sup> The law, passed in 2009, provides for a transition period with intermediate targets starting in 2011, and with the 0.35% target to be met from 2016. In so far as it is the structural deficit that is the constraint, the annual indebtedness can vary according to the country’s position in the cycle; however, the use of statistical filters as the estimation tool suggests a significant cyclical element and thus a strong risk of inducing pro-cyclical fiscal policy (Truger and Will 2013). Finally, the law also introduces a clause that allows exceptional circumstances to be taken into account. This “debt brake” rule introduced by the German government is in line with the Fiscal Compact,<sup>4</sup> which requires EU Member States to enact national legislation requiring a balanced budget—limiting the structural deficit to 0.5% of GDP<sup>5</sup>—as well as correction mechanisms in case the target is not met.

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2. See Truger and Will (2013) for a critical overview of the debate on the debt brake and Paetz, Rietzler and Truger (2016) for a recent analysis.
  3. The limit is set at 0% for the Länder from 2020 onwards.
  4. Fiscal chapter of the TSCG adopted in 2012 and ratified by 25 Member States.
  5. This limit is lifted to 1% for countries with a debt of less than 60%.



Between 2011 and 2016, the German federal government more than respected its commitments, as the annual debt was consistently lower than the intermediate targets. While the rapid improvement in the federal government's fiscal position does coincide with the adoption of this compulsory rule, Paetz, Rietzler and Truger (2016) show that the reduction in Germany's deficit was due mainly to favourable circumstances. A breakdown of the budgetary balance using the following relationship sheds light on this point:

$$NLG(t) = \text{Interest payment } (t) + \text{Cyclical balance } (t) + \text{Primary structural balance } (t) + \text{one-offs } (t)$$

Between 2010 and 2016, Germany's fiscal position improved by 4.5 points (Table 2). How much of this was the result of decisions taken by the government to improve the public finances? According to the OECD's estimate of the output gap, which indicates the improvement or deterioration in the deficit due to the cycle, discretionary measures contributed 1.2 percentage points to the deficit reduction. This contribution is close to that of the cyclical balance (+1.1 point). The fall in the interest rate is another important factor in the reduction in Germany's deficit. In effect, the debt service burden was cut by 1.1 percentage points of GDP, with the nominal rate on the debt also falling by 1.1 percentage points. Finally, exceptional measures have also contributed to deficit reduction, in line with the deterioration observed between 2007 and 2010.

Table 2. German fiscal policy from 2003 to 2016

Gdp points				
Cumulated change	2003-2007	2007-2010	2010-2016*	2007-2016*
<b>Net government lending</b>	4.4	-4.4	4.5	0.1
<b>Interest payment</b>	0.2	0.2	1.1	1.4
<b>Δ nominal rate</b>	-0.3	-1.1	-1.1	-2.3
<b>Cyclical balance</b>	1.9	-2.0	1.1	-1.0
<b>Primary structural balance</b>	1.7	-1.6	1.2	-0.4
<b>One-off measures</b>	0.6	-1.1	1.1	0.1

\* The figures for 2016 correspond to an OECD forecast.  
Source: OECD, Economic Outlook n° 99.

Thus by the end of 2016, the government balance was once again at its 2007 level, i.e. in surplus, suggesting that the improvement in the balance between 2010 and 2016 (4.4 points) offset the deterioration experienced during the recession. It should be noted, however, that a breakdown of the deterioration in the balance between 2007 and 2010 shows a somewhat different picture, with

a 2-point increase in the deficit due to lower growth and to discretionary measures, which accounted for 1.6 points. The exceptional measures (in particular support for the financial system) came to 1.1 points, as indicated above. The debt service burden played a positive role, falling by 0.2 point between 2007 and 2010.

It is clear, therefore, that, looking at the crisis as a whole, Germany managed to master its budget deficit despite the sharp deterioration during the worst part of the crisis. Fiscal policy played a counter-cyclical role during this period, with an expansionary fiscal policy during the recession and a policy of fiscal consolidation once growth picked up. However, this consolidation phase was much less pronounced than in the other euro area countries. For example, in France an estimate based on OECD data for consolidation measures indicates that the primary structural balance improved by 2.8 points between 2009 and 2016.<sup>6</sup>

Furthermore, Paetz *et al.* (2016) suggest from counterfactual simulations that if Germany's performance in terms of growth had been less favourable, the debt brake rule would have forced the government to take pro-cyclical measures that would in turn have undermined growth. In fact, fiscal consolidation in Germany was essentially carried out prior to the crisis: there was an improvement in the primary structural balance of 1.7 points, which made it possible to once again generate a fiscal surplus in 2007, whereas the deficit was 4.2% in 2004. But the macroeconomic situation, in particular the international environment, was completely different in the 2004-2007 period compared to the 2010-2016 period. The average annual growth rate in the euro area (excluding Germany) was 2.7% between 2004 and 2007, compared to 0.6% between 2010 and 2015. Germany therefore carried out the bulk of its fiscal adjustment in a favourable climate, which helped to mitigate the cost to the country in terms of lost output. In contrast, the synchronization of tight fiscal policies in the euro area from 2010 onwards generally contributed to amplifying their negative impact on the area's growth.<sup>7</sup>

One important lesson can be drawn from this analysis of the evolution of Germany's budget balance:

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6. The choice of 2009 rather than 2010 for France is due to the fact that the figure for the deficit was observed in 2009 in France and in 2010 in Germany. In addition, according to the OECD the period of German fiscal consolidation was shorter. If we look only at fiscal consolidation measures, these come to 1.8 points in Germany between 2011 and 2014 and 3.2 points in France between 2011 and 2016.
  7. See IMF (2010) and the iAGS 2013 report.

Fiscal consolidation is most successful in a favourable environment. An important factor is labour market performance. With rapid employment and wage growth tax revenues and social security contributions increase sharply while spending on unemployment is reduced quasi automatically. The German example is in sharp contrast with the developments in the European crisis countries, where wage cuts and falling employment made budget consolidation almost impossible.

In addition Germany benefitted from falling interest rates intensified by the country's function as a "safe haven" in the euro crisis.

### c) Current account: A country with excess savings

The large and growing trade surplus is often considered to be a sign of the German economy's good health. The balance of goods and services reached 243 billion euros in 2016 (7.8% of GDP), making a significant contribution to the current account surplus (266 billion, or 5.5% of GDP). These record surpluses contrast with the current account deficits recorded by Germany after reunification and up until 2001, and they are widely seen as bearing witness to Germany's renewed status as an industrial and export "hyperpower". Changes in the real effective exchange rate since 1999 show that Germany has gained in cost-competitiveness relative to its European partners, and it proved its resilience in the 2000s when the euro appreciated on the foreign exchange market (Figure 4). Germany actually gained export market share during the 2000s. These trade performances not only stem from an improvement of the cost-competitiveness of Germany relative to trade—and notably other euro area members—partners but it also results from an advantage in terms of non-cost competitiveness, which evokes the idea of high-quality production and the benefit of a good image, enabling its companies to hold their demand captive.<sup>8</sup>

However, price competitiveness mostly applies to exports only while the current account is the balance between exports and imports. Many authors find that the development of exports did not account for most of the difference in current accounts but that the main difference were developments in imports.<sup>9</sup> Crisis countries like Greece and Ireland had even higher percentage increases in their nominal exports between 1999 and 2007 than Germany (Horn and

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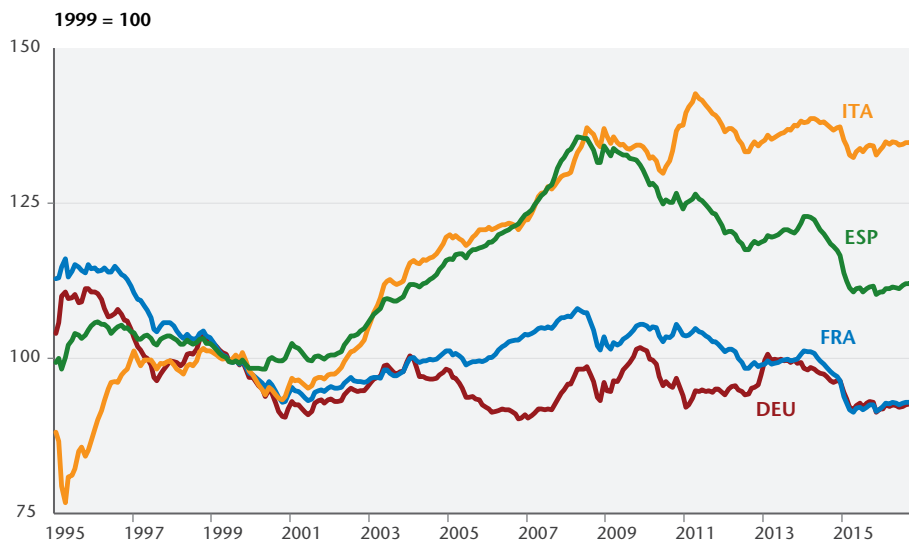
8. See ECB (2012) for an analysis at the euro area level and Le Moigne and Ragot (2015) for an analysis of the France's bilateral external trade deficit relative to Germany.

9. See for instance European Commission (2010), Feigl and Zuckerstätter (2012), Gaulier and Vicard (2012), Wyplosz (2013) and Horn and Lindner (2016).

Lindner 2016). What led to the current account surplus in Germany were low imports due to a weak internal demand. In the 2000s, labor market reform and austerity depressed domestic demand and thereby import demand. In many crisis countries credit financed real estate bubbles drove domestic demand and thus imports, thereby leading to current account imbalances.

Thus, a working group on the competitiveness within in the European System of Central Banks finds that: "From the start of the euro until the crisis, export growth adjusted for geographical and sector specific effects was only weakly correlated with changes in the current account or deviations in ULCs. This suggests that the negative correlation between the two latter variables was partly driven by common shocks rather than current account imbalances resulting from heterogeneous cost competitiveness. The data are consistent with demand shocks in peripheral euro area countries moving resources from the traded sector to the non-traded sector, with price and wage increases concentrated in the nontraded sector."

Figure 4. Cost-competitiveness of four euro area countries



Source: IMF. Indicators of real effective exchange rates weighted by unit labour costs.

Between 1999 and 2007, Germany's current account went from a deficit of 1.4% of GDP to a surplus of 6.8% mainly due to an improvement of nearly 6 percentage points in the balance of trade in goods and services (Table 3). By 2016, the trade surplus was 7,8%. The bulk of the improvement was actually

achieved before the crisis. The gains were nevertheless consolidated during the crisis, even though several factors could have eroded Germany's export performance. First, the global trade shock in 2008-2009 and the slowdown in trade between 2012 and 2012 cut down demand for exports.<sup>10</sup> Second, the current rebalancing of current accounts within the euro area is partly being achieved by a relative gain in competitiveness of the countries running deficits before the crisis, and hence by a relative deterioration in Germany's cost-competitiveness (see Figure 4 and above). However, the major part of the adjustment of the crisis countries is achieved by austerity induced falls in imports which has also decreased European demand for German exports.

The evolution of a country's current account reflects not only the dynamics of its competitiveness but also its position in terms of the balance of savings and investment. In accounting terms, a current account surplus corresponds to an excess of domestic savings relative to investment, whereas a deficit reflects an excess of investment relative to domestic savings. An analysis of the savings and investment rates of households, business and government provides a complementary understanding of the dynamics of current account surpluses. In the pre-crisis period, the improvement in the current account coincided with a rise in savings and a fall in total investment by agents (households, financial and non-financial corporations and general government—HH, FC and NFC, GG). Expressed as a percentage of GDP, business savings rose by 3.6 points between 1999 and 2007 and government savings by 1.3 points. With respect to household investment, the fall in the period 1999-2007 needs to be seen in relation to the sluggishness of the German housing market. In fact, the recent rebound

Table 3. Germany's current account since 1999

Change in GDP pts	1999-2007	2007-2015
<b>Current account</b>	8.2	1.6
<b>Balance goods &amp; services</b>	5.9	0.9
<b>HH savings</b>	0.6	0.0
<b>HH GFCF</b>	-1.7	0.2
<b>FC + NFC savings</b>	3.6	-0.3
<b>FC + NFC investment</b>	-0.6	-0.6
<b>GG savings</b>	1.3	0.4
<b>GG investment</b>	-0.4	0.2

Source: Eurostat.

10. See IMF (2016) for a recent analysis of the slowdown in world trade.

in the period 2007-2015 has been reflected in a modest increase in household investment. Government investment is also picking up, although it is still low (2.1% of GDP in 2015, compared with 3.5% in France). As for business investment, it has continued to decline since 2007 despite the recent improvement in financial conditions. Thus, the record current account surplus is not only a sign of a healthy economy, but also reflects the weakness of investment, which is the engine of both short-term and long-term growth, in particular investment by business and general government.

## 7.2. What are the challenges facing the German economy?

The economic successes of Germany should not hide the challenges facing Germany. The reduction of the unemployment has benefited from the slow growth of the labour force. However on the long run, it will raise important issues. Besides, even if recently growth was less determined by external factors than during the years 2000, the question of public investment in Germany has been raised in the public debate. Finally, inequalities have significantly increased despite the reduction of the unemployment rate. This has been a major concern and has led to the introduction of the minimum wage.

### a) The challenge of an ageing population

As of 1 January 2017, Germany's population stood at 82.8 million, up 0,7% from the previous year, nearly the highest since 1992. This increase has occurred even though the natural balance (number of births minus number of deaths) was still negative, by about 150,000 to 190,000 people according to the first estimations of Statistisches Bundesamt (2017). It was thus the migration balance (at least 750,000 in 2016), which was similar to the levels observed following the fall of the Berlin Wall and the opening of the Iron Curtain, that has recently made it possible to reverse the trend of a declining population.

Recent trends should not, however, be allowed to obscure the long-term tendency. Indeed, demographic projections generally follow well-identified trends, at least with respect to the fertility rate, which, although rising slightly in the last two decades, was still only 1.5 children per woman in 2015, which is much too low to ensure population renewal. According to the latest population projections by Statistisches Bundesamt (2015), the working-age population will fall sharply as the baby-boomers retire and the cohorts entering the labour market are much smaller. At the beginning of 2016, Statistisches Bundesamt indicated that the current high immigration levels would have only a limited

impact on long-term population trends, even if this pushes back and limits the extent of population ageing in the short and medium term. In order to stabilize the population aged 20 to 66 by 2040, the net immigration of this age group would have to be 470,000 annually. But total net immigration (i.e. including those under age 20) has exceeded this level only in four years since 1991. The large-scale immigration observed recently is thus not sufficient to avoid a fall in the working-age population.

Measures to promote a better work-life balance have been implemented in recent years (reform of parental leave in 2007, the 2008 law introducing the right to a childcare place for children aged 1 to 3), and the level of women's participation in the labour market has risen, from 69.2% in 2007 to 72.7% in 2015 (compared with 81.8% for men in 2015). However, these measures will not be sufficient to reverse demographic trends, and this will have important consequences for the public purse, mainly *via* social spending. Population ageing will lower the ratio of workers to pensioners and will have an impact on the funding of pensions, which could increase by 2.6 GDP points by 2060 according to European Commission calculations.<sup>11</sup>

These factors undoubtedly explain why Germany has introduced measures to extend lifetime working hours, particularly provisions for raising the retirement age. Demographic ageing will also lead to higher funding needs for health and dependency. According to the European Commission's calculations, aggregate spending related to population ageing is expected to rise by more than 5.2 GDP points in Germany by 2060, compared to 3.7 points for the European Union as a whole.

The prospect of an ageing population suggests a possible alternative, and more sanguine, interpretation of the accumulation of current account surpluses since the early 2000s. As illustrated above, the current account reflects the gap between domestic savings (private and public) and investment. According to some theoretical approaches, positive net savings (a current account surplus) is justified whenever an ageing population and a slowdown in long-term growth can be expected. Germany should therefore export more in anticipation of a slowdown in its long-term growth and a future structural increase in its imports. As a corollary, the current account surplus would subside with falling growth and the concomitant reduction of the savings rate. However, this would not explain or justify surpluses of the magnitude we have seen.

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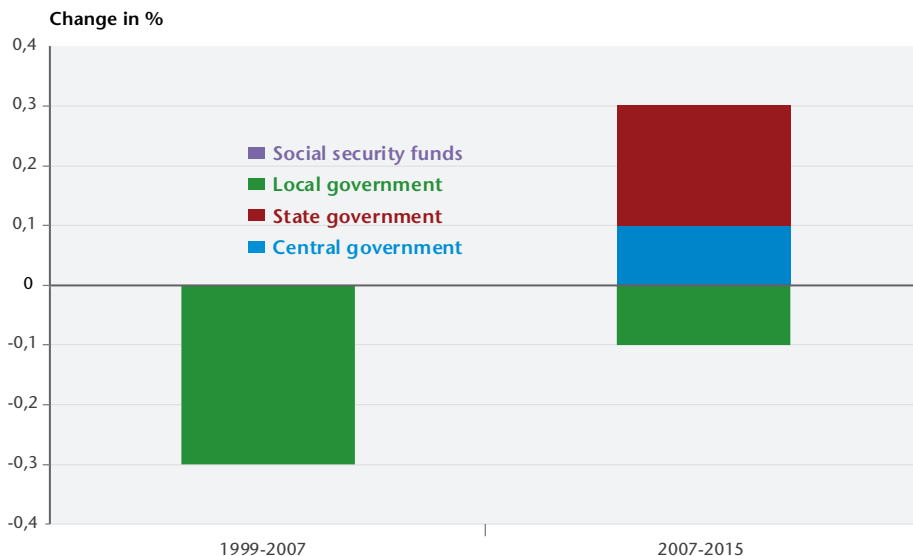
11. See European Commission (2015).

## b) Does Germany need to invest more?

This analysis of the current account has also highlighted the weakness of German investment, particularly on the part of business and general government. But investment is needed, whether this is a matter of financing the energy transition, education or the country's infrastructure. The public authorities play a critical role with regard to investment. While the early 1990s were marked by a sharp increase in public investment due to reunification, the level of gross public investment flows since 2003 has not been sufficient to compensate for the obsolescence of capital, which is leading to lowering the quality of the public infrastructure.

There has been a clear lack of engagement by the public authorities in Germany (Rietzler 2014). This is due in particular to the withdrawal of the municipalities (Figure 5), which accounted for 35% of investment expenditure in 2015. From 2007 onwards, the central government and the Länder raised their level of investment by 0.1 and 0.2 percentage points, but the municipalities cut theirs again by 0.1 point, while there was no change in the investments realized by Social security authorities.. The number of reports focusing on the need for public investment, especially in infrastructure (bridges, roads), has multiplied since the late 2000s.<sup>12</sup>

Figure 5. Public investment in Germany



Source: Eurostat.

12. See DIW (2013) for instance.



While since 2004 the German government has regularly announced support measures, in particular in response to the European Commission's recommendations with respect to the imbalance in the current account, this has not yet been reflected in the statistics on public investment. The authorities' manoeuvring room could also be limited in the future by the "debt brake" rule (Truger and Will, 2013). First, the rule adopted does not provide for an exclusion of capital expenditures when determining the yearly debt ceiling. Moreover, in the event of a cyclical downturn, the rule does not give the budgetary authorities sufficient room for manoeuvre, forcing them into pro-cyclical policies, which could in fact result in further adjustments in investment expenditure.

### c) Labour market: Grey zones

From the early 1990's, wage setting became progressively more decentralized to the firm level. The number of enterprises not covered by a collective bargaining agreement increased and trade unions loosed power in the collective bargaining at the branch level. It triggered a significant increase in the share of low wages, employees earning less than 2/3 of the median gross wage, which accounted for 24% of German employees in 2013 (compared with 9% in France according to Eurostat<sup>13</sup>); 5 points higher than in 1995 (Kalina and Weinkopf, 2015). In the absence until 2015 of an interprofessional minimum wage, hourly wages remained very low and 1.6 million people earned a hourly wage below 5 euros at the beginning in 2013 (Kalina and Weinkopf, 2015).

The development of part-time work, related to the increase in the female participation rate (62.1% in 1991, 72.9% in 2015 according to Statistisches Bundesamt), and of temporary work (liberalized during the Hartz reforms) has also heightened wage inequalities: employees who worked less hours were also those for which the hourly wage was often weaker compared to a full-time job.

A reduction in the level of redistribution (taxation and transfers) has also contributed to widening income inequality (Schmid and Stein, 2013). Moreover, the unfavorable evolution of income at the bottom of the distribution in the period 1991-2010 has led to an increase in the risk of poverty in Germany, that was not mitigated by the redistribution system. A German household's risk of being in poverty rose from 11% in 1991 to 14% in 2012 (Goebel and Grabka, 2013; Goebel, Grabka and Schröder, 2015). The risk of poverty exploded particularly among the unemployed (56% in 2010, compared to 37%

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13. Structure of earnings survey

in France).<sup>14</sup> As the Hartz reforms have restricted the conditions for qualifying for compensation and its duration, those who are unable to re-enter the labour market receive lower benefits. For people in employment, the risk of poverty increased slightly, to 10% in 2010.

In the face of these widening inequalities, there has been a growing awareness among social scientists, trade unions and some politicians that the collective bargaining system is no longer able to protect society's weakest workers from wage dumping and to ensure them a decent wage. So a little more than 10 years after the Hartz reforms were enacted, the question arose of correcting some of the excesses in a now more favourable macroeconomic context. In the 2013 legislative elections, the minimum wage was included in all the major parties' programmes. The principle of a generalized statutory minimum wage was, as the Social Democrats (SPD) wished, ultimately endorsed in the coalition agreement between the SPD and the Christian Democrats (CDU). The minimum wage has gradually come into force from 2015 and has helped to reduce wage disparities between the old and new Länder and between the most qualified and the least qualified employees (Amlinger, Bispinck and Schulten 2016, Chagny and Le Bayon, 2016).<sup>15</sup>

Firms have apparently limited the impact of the minimum wage on their costs by flattening the wage scales at the minimum wage level and by increasing the labour productivity of the employees concerned (cutting their working hours and / or intensifying the work effort). They have also passed on the higher costs in prices, especially in the new Länder. This is clearly reflected in the prices of certain services in these Länder (hairdressers, taxis, etc.). On the other hand, the impact has been small at the aggregate level, with the former Länder accounting for only 20% of Germany's consumer price index. Furthermore, the fall in oil prices had a disinflationary impact that helped to mask any possible inflationary effect of the minimum wage.

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14. Allegre (2013).

15. Gross monthly wages (excluding minijobs) rose by 3.4% in 2015 in the new Länder, compared to 1.6% in the old Länder. Moreover, the rise in hourly wages in the new Länder was 8.6% for the unskilled and 5.8% for the semi-skilled, while for those with an average skills level it was 4%.

### 7.3. Germany and Europe: Reflections on European governance

Germany is emerging from the crisis in an unquestionably stronger position, and it is more than ever playing the role of leader of the euro zone. Even though there are imbalances and problem areas behind these apparent successes, the German model has become a benchmark for the euro area, since it showed the possibility of reducing unemployment while generating budget surpluses and remaining highly competitive, that is to say, while respecting the rules of European governance. This situation has given Germany a hegemonic economic and political position within the euro area, which enables it to defend its interests and propose its vision of governance (Wyplosz, 2016). At the same time, the other Member States are also tempted to ask it to assume the position of being a locomotive for the euro area so as to drive the growth of its partners through its stimulus policies.

#### a) Can the euro area use the same recipes as Germany?

The German government is interpreting its success as being the fruit of a form of orthodoxy and of respect for the existing rules of European governance. So if Germany is now running a budgetary surplus, this is because the country has made the efforts needed to reduce its deficit and ensure the sustainability of its public finances. Likewise, the current account surplus is viewed as the result of mastering competitiveness and controlling wage costs, in particular through the Hartz labour market reforms implemented in the early 2000s. Having identified the supposed keys to success, other European countries merely have to follow the same path.

However, although the Hartz reforms were an important turning point in the functioning of the German social welfare state, profound changes were already underway. Wage moderation had begun in the mid-1990s, reflecting the introduction of greater flexibility into the German social model (Chagny, 2008). Moreover, Germany's situation is due not only to the functioning of its labour market, but also to the existence of a set of complementarities that relate to the way that agents and institutions are coordinated, which define the German "model". However, these characteristics—industry specializing in quality goods produced by highly skilled employees, autonomy of the social partners, long-term governance, a state guaranteeing regulated liberalism, price stability—are unique to Germany and cannot be replicated by other countries (Hall, 2015). Given this, there is no guarantee that the same reforms will produce the same effects.

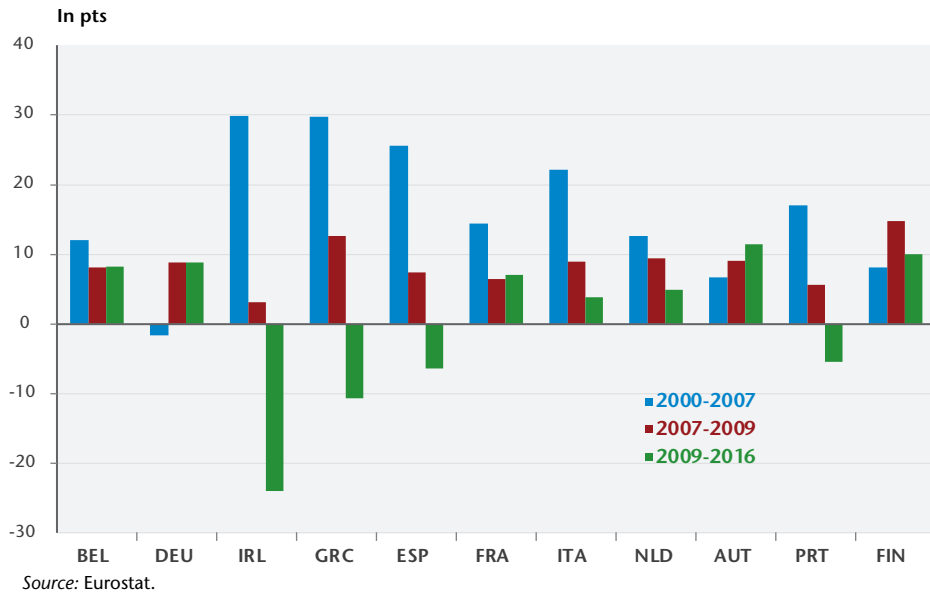
Herzog-Stein, Lindner and Zwiener (2014) show that for many years the structural reforms depressed domestic demand, with an overall negative growth and employment impact, in addition to helping to fuel the competitive disparities that led to the implosion of the common currency.

It should also not be forgotten that Germany's fiscal consolidation and labour market reform were undertaken before the 2007 financial crisis, i.e. in a much more favourable economic context. When Germany undertook its fiscal adjustment, it was able at that time to benefit from the more dynamic growth of the other euro area countries, which enabled it to offset at least partially the negative effect of its fiscal consolidation. Starting in 2010, it is the euro area as a whole that has pursued a fiscal consolidation policy. The synchronization of these policies has greatly increased their recessionary effect. In these circumstances it has been much more difficult and costly for the euro area countries to reduce their post-2010 deficits than it was for Germany after 2004. The iAGS 2013 report shows that this strategy was a failure and that alternative solutions should have been contemplated and implemented. The success of fiscal consolidation depends heavily on the moment that it is undertaken. As has been suggested in Section I, Germany's return to budgetary surpluses is the result not so much of extra efforts it has made relative to its partners as to the fact that it has undertaken less fiscal consolidation, and thus not undermined growth. The bulk of the effort was undertaken earlier, in a different context.

Similarly, by definition, Germany's gains in competitiveness in the first half of the 2000s have had as their corollary a deterioration in the competitiveness of its trading partners, particularly those in the euro area. The real effective exchange rate is ultimately a measure of the relative price or cost. It follows that not all countries can become more competitive simultaneously. However, the one-sided strategy currently being adopted by many countries, encouraged by flawed mechanisms such as the Macroeconomic Imbalance Procedure, is based on the implementation of labour market reforms or measures to cut labour costs (Figure 6). This race for competitiveness will inevitably have an attenuated impact on growth, with the gains of some being made to the detriment of others. Furthermore, in a context of high unemployment, implementing a strategy like this at the level of the euro area as a whole creates and reinforces disinflationary pressures throughout the area.

Hence there is every reason to think that an approach that has worked in one place at one specific time will not work in the same way for other countries in other contexts.

Figure 6. Change in unit labour costs



### b) Don't expect too much from Germany.

Due to Germany's macroeconomic situation and the weight of its GDP in euro area GDP, the economic policy decisions that it takes have an impact on other countries. Furthermore, Germany is the only large Member State that enjoys fiscal space under the Stability and Growth Pact, which would enable it to enact a fiscal stimulus that would boost demand in the euro area and thus benefit the countries that are currently constrained by the fiscal rules. This is the approach sought not only by the euro area Member States but, recently, also by the European Commission, which emphasised in its Annual Growth Survey (2016) that the orientation of fiscal policy in the aggregate euro area should be expansionary. Not only did this imply a German fiscal stimulus (because the aggregate orientation must be compatible with the budgetary rules in force which call for consolidation in other countries; the Commission explicitly called on countries with fiscal space to use it and to frontload public investment. What we see is that Germany's fiscal stance was mildly expansionary in 2015 and 2016, in particular as a result of the measures taken to receive immigrants. The prospect of the autumn 2017 elections could also see the emergence of stimulus proposals which, in the current state of the debate, would mainly focus on tax cuts.

On the other hand, if a major fiscal stimulus were adopted, such as a public investment plan as suggested in Section 2, this would benefit Germany in particular and above all. Although the literature highlights the positive spill-over effects (Corsetti *et al.*, 2010; Blanchard *et al.*, 2016), their magnitude is probably limited. It does not therefore seem realistic to think that a German revival would solve the problem of low growth in France, Italy and Portugal. These limits should not however lead to giving up on the implementation of an investment programme in Germany. This is still desirable in order to consolidate Germany's growth in the short term and to boost its growth potential in the long term. This would also end up having a positive impact on demand for exports from other euro area countries. But this could not be the sole driver of growth in these countries.

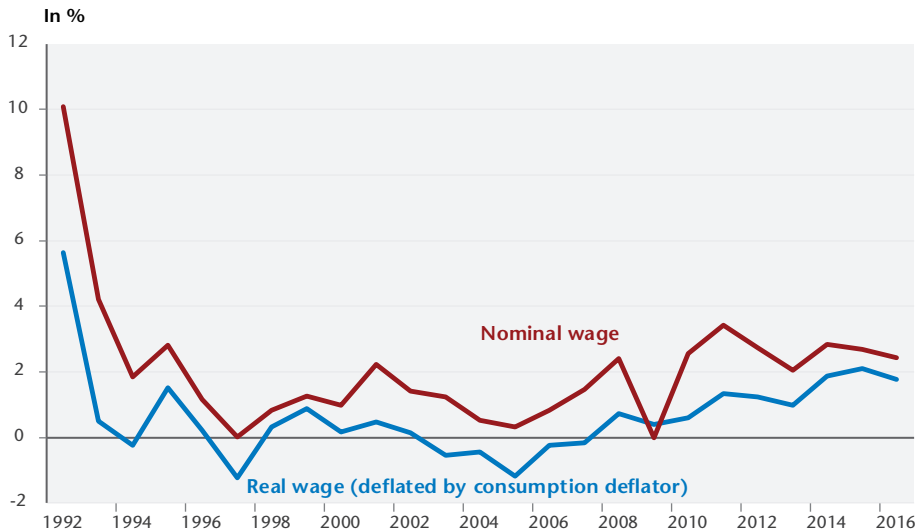
The other factor supporting growth could be a more generous wage policy in Germany, which would help to reduce the euro area's current account imbalances, although here, too, the effects will be limited in magnitude. The iAGS reports for 2014, 2016 and 2017 largely support this idea. Indeed, they are based on the observation that up to now the correction of imbalances has been carried out mainly by the countries in deficit. The higher the inflation gap between the surplus countries and the deficit countries, the easier it is to rebalance the current accounts. The main aim would be to promote a method of coordinating wage policies that takes into account the externalities of these policies and prevents the euro area from falling into a deflationary trap. But even if adjustments in relative competitiveness help to reduce the imbalances, the euro area cannot rely on this strategy alone. This needs to be supplemented by a structural component, that is, by policies that favour the convergence of production capacities and living standards. As was pointed out in the iAGS 2017 report, restoring growth in the euro area as a whole cannot be accomplished by a single measure, but demands a comprehensive strategy.

It should also be noted that wages in Germany have been accelerating since 2011 (Figure 7). The reduction in the unemployment rate has been giving employees greater bargaining power. Furthermore, in 2015, German employees benefited from the implementation of the minimum wage (set initially at 8.50 euros per hour, before being revised to 8.84 euros in 2017), even though the macroeconomic impact has been relatively small. Yet, it is clear that the faster growth in German unit labour costs (Figure 6) since 2009 has not yet translated into a reduction in Germany's current account surpluses.

Horn *et al.* (2017) simulated the impact of a higher increase of average nominal wage growth per capita than was actually the case in Germany. They study the

impact of an increase of 2.7% between 1999 and 2015 (which is equal to the sum of pre-crisis productivity growth and the ECB's inflation target), *i.e.* 0.9 percentage points more than what actually took place over the period. They find that this would have led to somewhat higher prices but would not have prevented real wages from rising by 0.7 percentage points per year more on average. However, if only wages and nothing else would have changed, the trade balance would have decreased by only 0.7 percentage points between 1999 and 2015. Since higher wages lead to an increase in income and consumption taxes and thus higher public revenues, they use those extra revenues to increase higher public spending. In this scenario with an additional fiscal boost, the trade balance would have been 1.2 percentage points lower, *i.e.* it would stand at 6.3% of GDP and not at the actual value of 7.5%. Overall, those simulations show, that stronger wage growth alone is probably not likely to be effective to significantly reduce the German current account and that there would have to be a much stronger increase in public spending to stimulate German demand to such an extent that imports are significantly increased and the trade balance reduced.

Figure 7. Changes in wages in Germany



Source: Destatis.

## 7.4. Conclusion

From the sick man of Europe at the early 2000, Germany has now reached a position of leader in the euro area. The economic performance of Germany has shown a strong resilience despite a major financial crisis, a collapse of the world trade in 2008-2009 and the worst global recession since the Great Depression. During the sovereign debt crisis that hit euro area countries, Germany was considered as a safe haven in the euro area. Ten years after, the German unemployment rate is below its pre-crisis level, the current account surplus has increased and the net government deficit has rapidly been reduced. Even though, those economic successes should not hide important internal challenges, it seems that Germany has reinforced its political influence on issues regarding European governance emphasizing the importance of public debt sustainability and competitiveness. However, the recent evidence has shown that the strategy followed by euro area countries to improve competitiveness and reinforce sustainability has failed. All countries have implemented fiscal consolidation at the same time leading to a double-dip recession in the euro area. The synchronized consolidation is therefore more likely to be self-defeating. Besides, euro area countries should also avoid a race for competitiveness that will end in deflation rather than improving exports performance. The leader's position also implies expectations from other euro area members. However, even if Germany is the biggest country in the euro area and may contribute to reduce macroeconomic imbalances, it cannot alone tackle all economic challenges faced by euro area. More coordination is needed notably through the adoption of a fiscal rule more favourable to public investment and through the adoption of a "golden rule" for wages as emphasized in the iAGS 2017 report.

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