

## The Failure of Internal Devaluation and the Case of an Investment-led Strategy to Foster Competitiveness in Greece

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Costas Passas and Christos Pierros (April 2017)

### 1. The Outline of the Greek Economy

Economic policy in Greece is determined for a seventh consequent year by the Economic Adjustment Programmes (EAPs) agreed between the Greek governments and the institutional partners. The primary goal of the Greek EAPs has been to restore the solvency of the public sector and the country's competitiveness, ultimately leading to investment-led and export-led growth.

The main policy tools for carrying out these objectives are fiscal adjustment and internal devaluation. However, the growth performance of the domestic economy does not provide any justification regarding the efficiency of this strategy.

The growth forecasts of the International Monetary Fund (IMF) and the European Commission (EC) for 2017

are optimistic,<sup>1</sup> yet destabilising dynamics generated by the implemented economic policy are expected once again to prove the projections overambitious. For instance, the unexpected recession at the last quarter of 2016, is indicative of the fragile state of the economy and the associated uncertainty. On top of that, the social and economic costs of the implemented policy have been overwhelming compared to the actual gains.<sup>2</sup>

In 2016 the contraction of the Greek economy was marginal. According to ELSTAT the real GDP decreased by 0.05% on an annual basis when i.e. according to the IMF (WEO 2016) the real GDP in 2016 was expected to

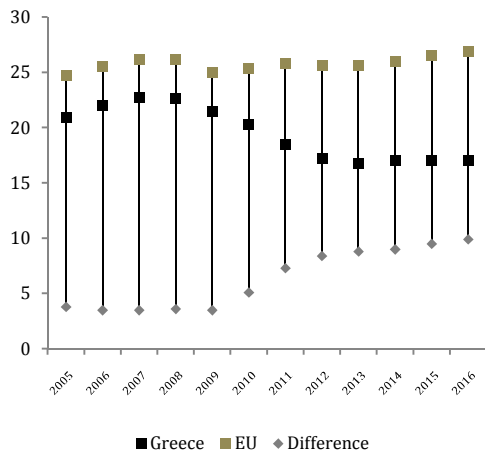
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<sup>1</sup> The real GDP is expected to grow by 2.7% in 2017 (WEO 2016, EC 2017).

<sup>2</sup> For a comparison of benefits and costs following the implementation of the EAPs see Weisbrot and Montecino (2012) and INE GSEE (2016a).

decline by 0.3%. Despite the economy's tendency towards stabilisation, the divergence between Greece and the EU average is steadily growing. As reported in Figure 1 the Greek real GDP per capita in the period between 2008 and 2016 has contracted by 24.8%, when the EU average has remained relatively stable. The convergence towards the EU average that was attained in the period between 2000 and 2008 has clearly been reversed. In 2016, the difference between the EU and the Greek real GDP per capita was equal to about ten thousand euro, when in 2008 the difference was equal to 3.6 thousand euro. It is worth noting that in 2016, for the first time since the outbreak of the crisis, the real GDP per capita of the EU is expected to overcome that of 2008, reflecting the divergence dynamics at play.

Figure 1. Real GDP per capita (thousand euro, Greece - EU)

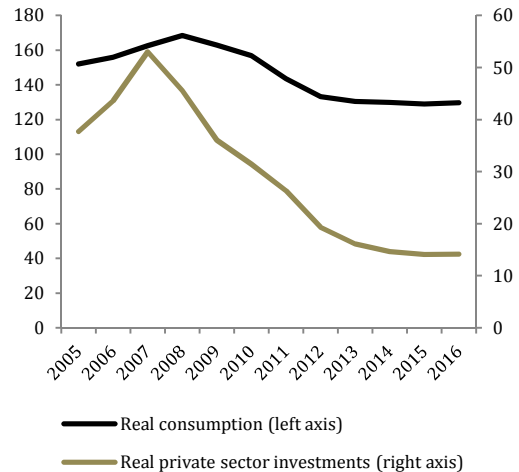


Source: AMECO

The stabilising tendency of the GDP is mostly attributed to the marginal increase in real investment and real consumption in 2016 by 90 million euro and 70 million euro, respectively (see Figure 2). Yet, such levels are inadequate to set the economy in a solid path of recovery, especially after considering the loss of the period

between 2007 and 2016. For instance, the change in real private consumption in the period 2010-2015 accounted for the 42% of the fall of GDP, while the investment activity of the private sector between 2007 and 2016 declined by 73.4%.

Figure 2. Real Private Sector Consumption and Investments (bn. euro, Greece, 2010=100)

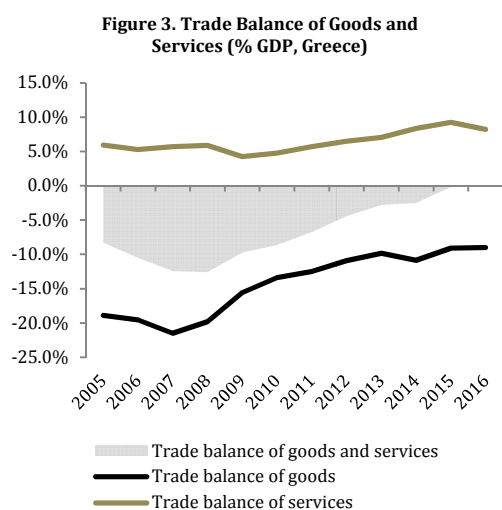


Source: AMECO (authors' calculations)

The investment-led growth regime that was supposedly promoted through the implementation of the Greek EAPs apparently has not been attained. However, the picture regarding net exports is somewhat better, even though the overall outcome lies far from being considered as export-led growth.

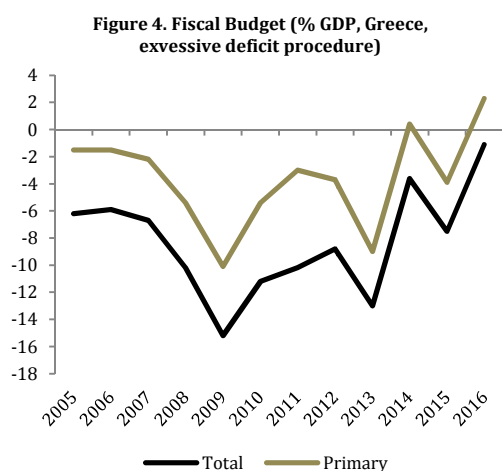
A notable improvement in the trade balance since the outbreak of the crisis is evident in Figure 3. Net exports in 2016 are practically equal to zero, with the main burden of adjustment being laid upon the balance of goods. The ratio of net exports to GDP is equal to -0.8%, constituting an outstanding adjustment when compared to the -12.6% trade deficit in 2008. Nevertheless, the current level of the trade balance could hardly offset the financial asphyxiation

of the private sector imposed by fiscal austerity.<sup>3</sup>



Source: AMECO

With respect to the latter, Figure 4 provides an overview of the fiscal adjustment process. Harsh austerity, implemented since 2010, resulted in a deficit reduction of 15 percentage points of GDP within five years interrupted temporarily by the recapitalisation processes of the Greek banking sector in 2013 and 2015. In 2016 the primary fiscal budget was equal to 2.3% of GDP, well above the fiscal target of 0.5% set out in the third Memorandum of Understanding (MoU).



Source: AMECO

<sup>3</sup> For a description of the interrelation between the financial balances of the private, the public and the external sectors see Godley (1999).

The most dramatic impact of the implementation of the EAPs is reflected in the unemployment rate. As Theodoropoulou (2016) pointed out, unemployment has been over-responsive to the fall of the GDP and especially to the implementation of the internal devaluation policy. In 2016, the unemployment rate was reduced by 1.5% (see Figure 5) primarily due to the increase in precarious and low-paid forms of employment and to the community service programmes (INE GSEE 2017). Therefore, unemployment remains a major issue, highlighting the need for the immediate implementation of large-scale active labour market policies, so as to alleviate the negative social, macroeconomic and financial effects of the current condition and support robust growth for the Greek economy.

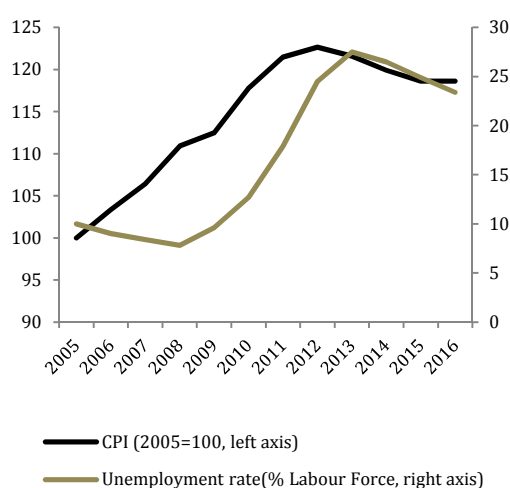
Besides, creditors' policy has contributed to tightened liquidity constraints, ultimately resulting in deflation. In 2016, the Consumer Price Index (CPI) reported in Figure 5 was stable, implying that the impact of internal devaluation is ebbing away. This condition, then, begs the question "was it worth it?".

In what follows, we focus on the effectiveness of the internal devaluation policy that aimed to improve the competitiveness of the Greek economy. We confine our analysis on the developments in the Unit Labour Cost (ULC), defined as the average cost of labour per unit of output.<sup>4</sup> Our choice is determined by the theoretical assumption entrenched in the EAPs, according to which competitiveness is fostered through labour cost adjustments. In our view, this strategy is

<sup>4</sup> See OECD Glossary of Statistical Terms.

destined to fail given that the actual problem of competitiveness of the Greek economy is mainly structural. On top of that, the assumption according to which internal devaluation redirects productive sources towards the exporting or tradable sector through changes in the relative prices<sup>5</sup> does not seem to hold, at least in the case of Greece. On the contrary, an investment strategy aiming at restructuring the productive sector and enhancing the productivity of the economy would have proven a more realistic, efficient and less costly approach.

Figure 5. Consumer Price Index and Unemployment Rate (Greece)



Source: AMECO

The rest of this policy brief is organised as follows. Next section provides an overview of the developments regarding the implementation of the internal devaluation in Greece together with an outline of its main drawbacks. In the third section, we examine changes in the competitiveness of the economy, while in the fourth section we investigate if these developments have bore any fruitful results regarding the export performance of the economy. Finally, we present an alternative

scenario on whether the same results in terms of competitiveness could have been achieved, following a different strategy.

## 2. The Framework of the Internal Devaluation Process and its Main Drawbacks

According to the MoU of 2010 (MoU 2010:10) the fundamental medium-term objective of the programme was to “improve competitiveness and alter the economy’s structure towards a more investment- and export-led growth model”. This goal was restated also in the subsequent MoU of 2012 and of 2015 (MoU 2012:1, MoU 2015:5). Lacking an independent exchange rate mechanism in lieu of its place in the Eurozone any increase in competitiveness could only come as a result of a process of internal devaluation. Consistently in all three EAPs for Greece, structural, labour and product market reforms, aiming at higher flexibility, were the proposed approach in the service of this goal.

Yet, despite the broad set of reforms, the main focus was laid upon labour cost reduction and the liberalisation of the labour market. This comes as no surprise given the prevailing view in mainstream economic thinking, according to which economic prosperity is bound to labour market flexibility (Stockhammer and Onaran 2012) and reduced strength of the trade unions (Alexiou and Nellis 2013). Characteristic of this mentality is the assertive position of the EC with regards to the real wage – productivity nexus, according to which the growth of the former ought to be lower (EC 1995: 7)

<sup>5</sup> See Myant et al. (2016).

or at least equal to the growth of the latter (EC 2005: 15).

Much of the focus on competitiveness has exhausted itself in two issues: (a) a hiatus in the collective bargaining process between social partners at the national level, resulting in the institution of the level of minimum wage decided by government decree, and (b) minimum wage reduction and pension cuts. Wage compression was considered essential for fostering competitiveness, given that the internal devaluation policy aims strictly at the enhancement of the cost competitiveness. Besides, fiscal and monetary rigidity imposed by the dominant political thinking in the Euro Area, narrowed down available policy options to the labour market domain (Feliipe and Kumar 2014).

Nevertheless, this strategy has been found to be inadequate in a number of ways. First, reductions in the wage bill had a negative immediate effect on domestic consumption and thus on GDP, as is the usual case with the implementation of this type of policies (Palley 2011). In addition, the negative impact has been augmented given the wage-led growth regime of the Greek economy (Onaran and Obst 2016).

Second, the fall of domestic consumption led to an explosion of unemployment, a reduction in the level of employment, increasing poverty. The already inefficient social security system could hardly cope with the actual needs of the society, a condition intensified by fiscal austerity (Ioannidis and Pierros 2015).

Third, the net effect of decreases in GDP and employment was indeed a reduction of labour productivity, thus

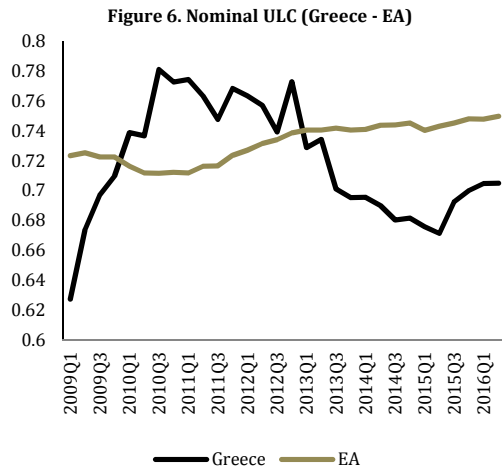
generating a break in the improvement of competitiveness. As we argue below, this constitutes one of the main reasons behind the failure of internal devaluation.

Fourth, the international economic and geopolitical environment has acted as a barrier to an export-led strategy, due to a number of headwinds. In this context, the systematic reduction of the global growth rates estimates of the IMF (WEO 2016) should not come as a surprise.

Given the above, increasing cost competitiveness by cutting wages is of less importance with respect to the export performance of the Greek economy. The developments in the Real Effective Exchange Rate (REER) and exports examined consequently provide evidence for the above.

### **3. Developments in the Competitiveness of the Greek Economy**

The evolution of the Nominal ULC is depicted in Figure 6, upon which two remarks ought to be made. First, the Nominal ULC was already lower than the Euro Area (EA) average before the crisis and second, the Nominal ULC is likely to stabilise at a lower level, compared to the EA average, though higher than the corresponding level of the domestic economy in 2009. Therefore, the internal devaluation policy could hardly be considered as successful, since its immediate effect on the ULC is lower than anticipated.

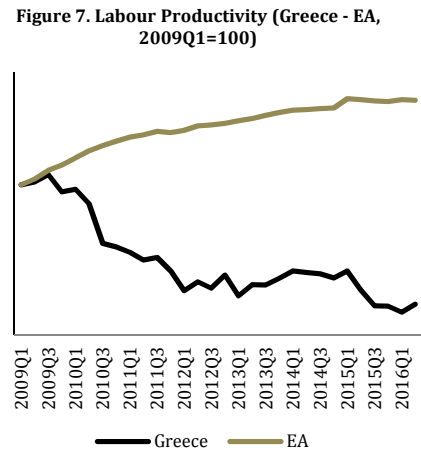


Source: INE-GSEE (2016)

The abovementioned remarks are justified on the basis that changes in the Nominal ULC are the outcome of a huge productivity loss that commenced in 2008, without any significant prospect of recovery.<sup>6</sup> For instance, between 2007 and 2010 changes in hourly wages in Greece, as well as in Italy and Spain, were lower and not converging to the corresponding in Germany (Armingeon and Baccaro 2012), which usually serves as the reference country in terms of competitiveness.

Decomposing changes in the Nominal ULC into change in the average labour cost and change in labour productivity, we find that a reduction of Nominal ULC by 12.4% from 2010 to 2016 is attributable to the combined effect of a reduction in average labour costs by 17.1% and a reduction of labour productivity by 5.4%. As a result of this condition, labour productivity presents strong divergence dynamics compared to the EA average (see Figure 7), partially reflecting the divergence in the real GDP per capita observed in Figure 1.

<sup>6</sup> See Figure 6, Figure 7 and also Uxo et al. (2014)



Source: INE-GSEE (2016)

Moreover, since the focus is on international competitiveness it is worth noting that the Nominal ULC of EU15 countries has increased only by 6.16% over the same years, thus making the adjustment process substantially harder for Greece.

The latter remark becomes more evident when the Real Bilateral Exchange Rate (RBER), based on Nominal ULC, vis-à-vis the Top 7 trading partners is considered (see Figure 8). The austerity policies exercised uniformly, though with a different intensity, on a Euro Area scale have acted as a barrier to the improvement of domestic competitiveness.

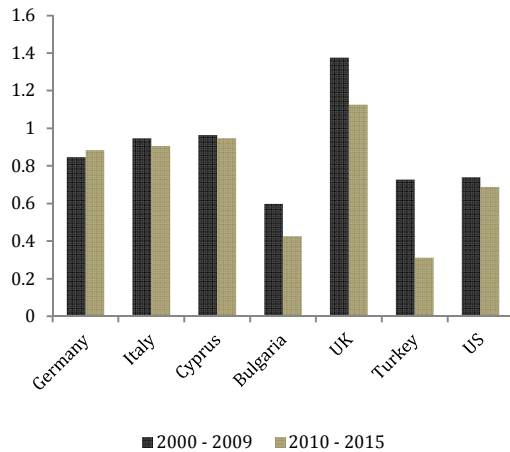
The RBER shows marginal improvement vis-à-vis the EA country-members or even slightly deteriorates in the case of Germany as compared to extra-EA or extra-EU countries.<sup>7</sup> Considering that the gross exports of Greece towards the Euro Area country-members accounted for the 34% of total exports in the second quarter of 2016,<sup>8</sup> it becomes apparent that austerity on a

<sup>7</sup> It should be noted that the comparison with Turkey is somewhat biased due to the high volatility of the Turkish lira.

<sup>8</sup> See OECD (2016).

Euro Area scale has taken a heavy toll on the growth of Greek exports.

**Figure 8. Real Bilateral Exchange Rate vis-à-vis Top 7 Trading Partners (based on NULC, Greece, 2010=1)**



Source: AMECO, ECB, UNCTAD (authors' calculations)

Furthermore, in lack of any symmetry, that is internal revaluation in the surplus countries, the devaluating countries are destined to get stuck in "bad equilibria" (De Grauwe 2012). According to this argument, the restrictive policy of Germany is undermining the devaluating effort of the peripheral countries (see Figure 8).

This is one of the main reasons why Hein and Truger (2009) and Bibow (2014) suggest the use of a Euro Area wide measure of ULC and then examine divergences on a country level, simultaneously proposing convergence policies.

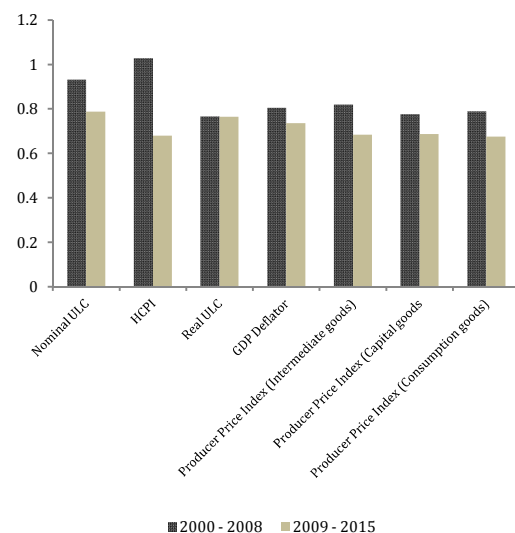
From a different point of view, it is highly debatable whether cost competitiveness, and in particular the ULC, is indeed the appropriate measure of competitiveness, upon which the focus ought to be laid. On the contrary Felipe and Kumar (2014) argue that the ULC serves as an indicator of distribution, while Uxo et al (2014) point out to the impact of internal devaluation on profit margins and taxes.

In particular, they argue that in the case of Greece, Spain and Portugal internal devaluation instead of enhancing competitiveness, it increased the profit margins.

Indeed, despite the unprecedented decrease in average labour cost, prices in Greece between 2010-2016 were reduced only by 5.13%, implying that a significant amount in labour cost reductions have been translated not in price decreases but in profit increases.

To further investigate this issue, we calculated the Real Effective Exchange Rate (REER) vis-à-vis the Top 7 trading partners using different indexes, such as the Nominal and the Real ULC, the Consumer Price Index (CPI), the GDP deflator and the Producer Price Index for consumption, intermediate and capital goods respectively. Consequently we estimated the REER based on each of the aforementioned indexes (see Figure 9).

**Figure 9. Real Effective Exchange Rates vis-à-vis Top 7 Trading Partners (Greece, 2010=1)**



Source: AMECO, ECB, UNCTAD (authors' calculations)

First of all it is apparent that regardless of the type of index the REER has devalued, representing an improvement

in terms of competitiveness. However, the differences between each type of index are striking. For instance, when comparing the REER based on the Nominal and Real ULC one observes that the actual adjustment is a product of changing prices rather than of wage cost reduction. This becomes more evident in the case of the REER based on the Harmonised CPI (HCPI), implying that the decline of the REER is rather the outcome of reduced consumption, than the direct outcome of wage reduction. In other words, any changes are due to developments in the demand rather than in the supply side of the economy.

This finding ostensibly contradicts the far more modest changes in the REER based on the GDP deflator. However, as Uxo et al (2014) pointed out, the reduction of wages in Greece has been partially offset by the increase in profit margins and taxation, thereby justifying the difference between the two factors.

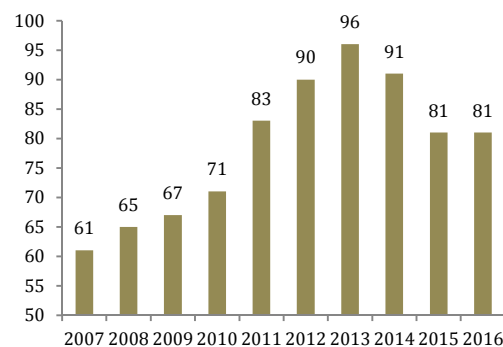
With respect to the supply price, based in the type of good, it is clear that the intermediate goods have become more competitive compared to capital or consumption goods. Given the large reduction of REER based on the HCPI the horizontal labour cost reduction and assuming uniform tax rates, the profit margins in the capital goods sector are now higher compared to the rest two sectors.

Yet, this could hardly suffice in order to draw safe conclusions regarding the impact of reduced REER's on the tradable and non-tradable sector, or in other words on exports. The aggregate ULC or the REER do not provide a comprehensive view of competitiveness, since the complexity of the exported products is neglected. For

instance, Felipe and Kumar (2014) estimated that Greece's composition of exported goods and services renders the economy competitive i.e. to Bulgaria rather than Germany, thus any comparison of the ULC's between Greece and the latter becomes irrelevant.

Things get more complicated, when other factors enter the picture, such as infrastructure, financial development, business sophistication, innovations, health and primary education etc. In the case of Greece not only the competitiveness has not improved, but, on the contrary, it has deteriorated compared to the pre-crisis level (see Figure 10).

Figure 10. Competitiveness Ranking of Greece



Source: World Economic Forum

Nonetheless, the futility of the internal devaluation policy could not be justified before examining its impact on the export performance of Greece.

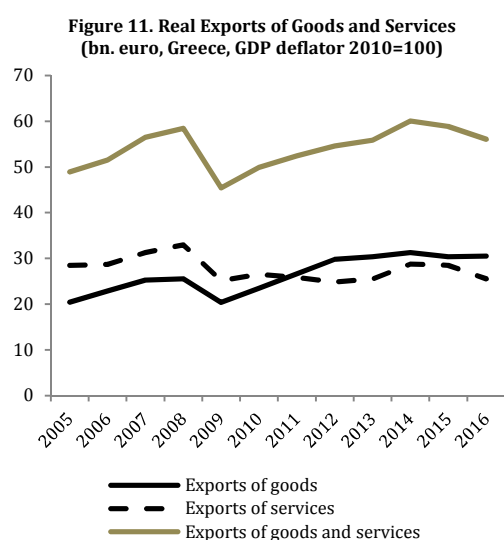
#### 4. The Export Performance of the Greek Economy

The exports of goods and services of Greece present a remarkable improvement, when expressed as a ratio of GDP. The exports to GDP ratio rose in the period between 2007 and



2016 by 34.5%.<sup>9</sup> However, much of this change is attributed to the huge decline of the GDP, rather than to an increase in exports. For this reason, the volume of exports is a more solid way of measuring the export performance of Greece.

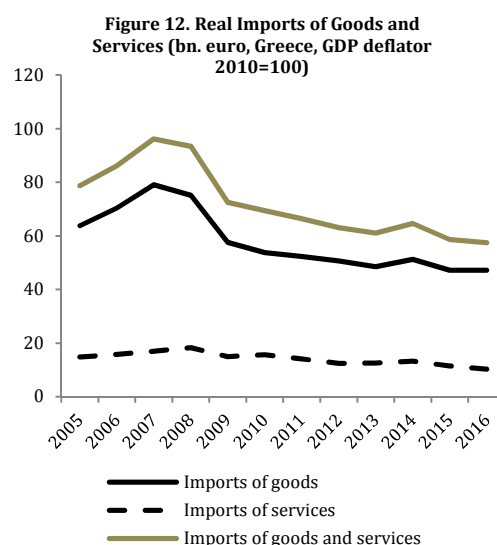
The advancement of the trade balance observed in Figure 3 was mostly the outcome of the adjustment of imports, rather of an increase in exports. As noted in Figure 11, the volume of exports of goods and services in 2016 is 7% lower than the corresponding volume in 2008. The exports of goods have slightly increased (15.5% or 3.9 bn. euro) compared to 2008, while exports of services contracted by 26.6% (8.9 bn. euro).



Source: AMECO (authors' calculations)

Regarding the trade balance, the impact of the internal devaluation policy, in hand with fiscal consolidation, is more evident when imports of goods and services are taken under consideration. In particular, the reduced disposable income and production resulted in lower import demand, thus closing the gap in the current account and so,

limiting capital outflows that occurred in the previous years.



Source: AMECO (authors' calculations)

As evident in Figure 12, the reduction in the volume of imports of goods reached a 36.7% (26.7 bn. euro) in the period between 2008 and 2016. However, it should be noted that between 2012 and 2014, imports of goods presented an upward sloping tendency, reflecting the dependence of the Greek productive sector on imports. This tendency was halted by the imposition of capital controls in 2015, which contained imports at a steady level<sup>10</sup>. It would not be overreaching to assume that in the event of robust growth, the current account deficit is likely to grow alarmingly, implying that the devaluation effort has been in vain.

With respect to the structure of the Greek exporting sector, we further investigated the composition of the exports of goods to find that, save the oil refinery products, the majority of the exported goods are of labour-intensity rather than capital-intensity, as reported in Table 1 in the Appendix. In

<sup>9</sup> Calculations based on the AMECO database.

<sup>10</sup> The same applies for the export of services and in particular for tourism.

fact, the oil refinery products accounted for over 24% of total exports of goods in 2010 and 28% in 2015. The rest of the products have only marginal impact on total exports.

The dominance of labour-intensive exported products raises serious doubts regarding the appropriateness of the internal devaluation policy in order to promote export-led growth. A uniform reduction of the compensation of employees becomes more relevant for the labour-intensive industry, where labour is the major input of production and of minor importance for the capital-intensive industry, which by definition produces higher value added. Instead of internal devaluation, an investment policy aiming to enhance the capital-intensive production might have proven way more effective in promoting export-led growth.

The utter goal of export-led growth was never attained for reasons related to external factors, such as weak export demand, but also to the structure of the Greek productive sector and the structural flaws in the construction of the Euro currency.<sup>11</sup> The connection between the REER and the volume of exports appears particularly weak and for this reason a) the internal devaluation policy is considered both irrelevant for the Greek case and ineffective and b) the gains in competitiveness are considered temporal and do not have a medium- or long-run effect.

## 5. Side Effects of the Internal Devaluation Process

The process of internal devaluation, in combination with the fiscal adjustment, presented several negative side effects on other aspects of economic activity. More specifically, the collapse in domestic demand, brought about by reductions in wages, has resulted into a collapse in general government revenue.<sup>12</sup> In particular, total revenue during the period between 2010 and 2016 has decreased by 10.64%, despite significant increases in tax rates, whereas total expenditure of the general government has also decreased by 22.26%. The recessionary effect of the above, doubled by the ineffectiveness of the PSI in 2012, has led to a particularly high level of the debt to GDP ratio of the Greek public sector, currently standing at 183%, with the actual debt level declining marginally by 4.14% in nominal terms, between 2010 and 2016.

Besides, the solvency of the private sector has been severely damaged, manifested in the negative flow of new loans and the negative savings of households. The internal devaluation and the taxation policies had a severe impact on households' gross disposable income, the reduction of which occurred at a faster pace as compared to consumption, resulting in negative savings from 2012 and onwards (see Figure 13). Households reduced their financial wealth in order to sustain consumption at a decent level. This fact, in combination with the massive deleverage process (see Figure 14) and the level of non-performing loans (currently standing at 44.2% of gross

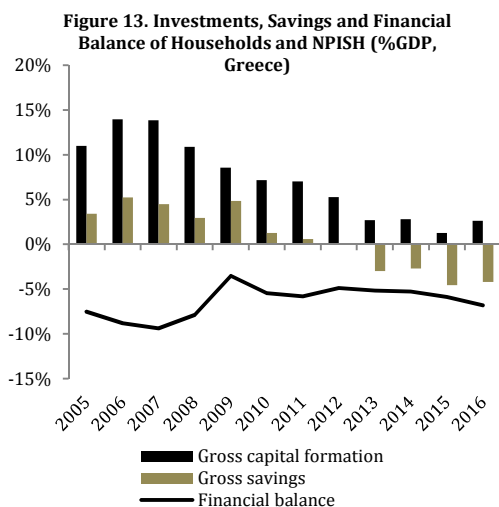
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<sup>11</sup> For a discussion on the structural imbalances of the Euro Area see Semeniuk et al. (2011)

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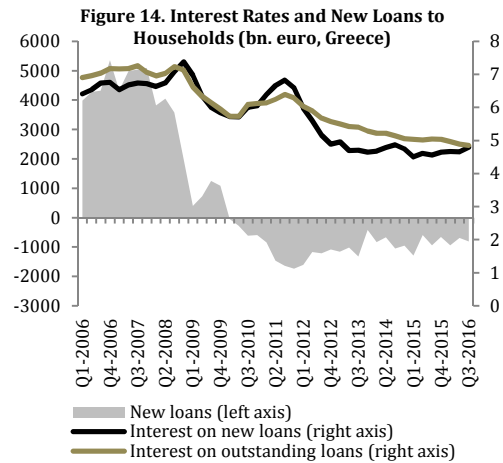
<sup>12</sup> See INE GSEE (2016b) for further details regarding the link between demand and public revenue.

loans, according to Bank of Greece), has created enormous pressure on the banking sector and consequently on its ability to provide liquidity to the productive sector, in order to finance new investments. In addition, monetary policy seems ineffective given the irrelevance of the level of the interest rates to reverse the deleverage process (see Figure 14).



Source: AMECO

Fiscal austerity intensified the dynamics of this process, ultimately leading the Greek economy in a phase of debt-deflation. Therefore, an alternative country-specific strategy is required, addressing the lack of structural competitiveness of the Greek economy and pointing out the way out of the crisis.

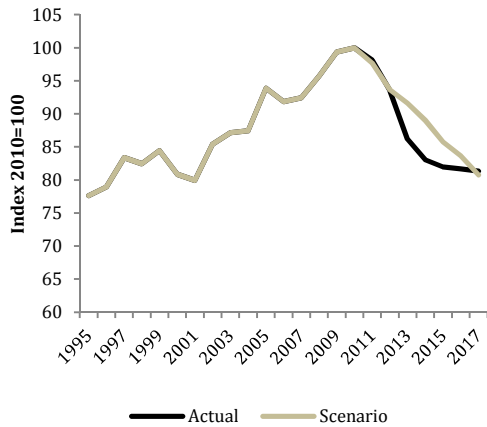


Source: Bank of Greece (authors' calculations)

## 6. An Alternative Approach to Fostering Competitiveness

Our view is in line with Kaldor (1978) and Aglietta (1997) who considered that the exporting performance of the economy is bound to its technological capacity and its industrial policy, respectively. It is our position that internal devaluation far from being the optimal strategy for fostering competitiveness and restoring macroeconomic stability has proved to be “too much pain for very little gain”. An alternative process that would have focused on increases in productivity, via a vigorous investment strategy, would be by far the more optimal solution. According to our estimates a growth rate of investment in the magnitude of 9% per year and a modest increase in exports of 2% per year, coupled with increases in general government revenue of 1% per year, and primary general government expenditure reductions of 3% per year, would have the exact same result in the international competitiveness of the Greek economy (see Figures 15a and 15c), as reflected in the REER, without the toxic side-effects associated with the current programmes.

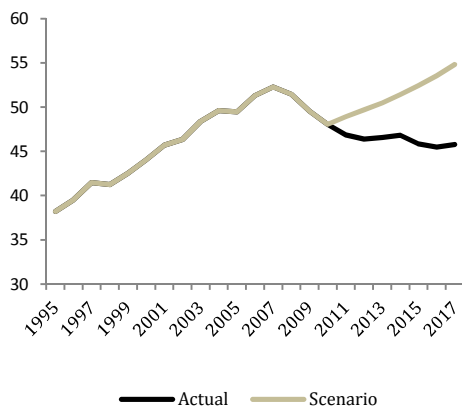
**Figure 15a. Real Effective Exchange Rate  
(based on Nominal ULC, Greece)**



Source: AMECO (authors' estimations)

It is critical to note that our proposal offers a more balanced approach to the adjustment process, smoothed out over a number of years and under plausible assumptions, and rejects the more ambitious and actually failed front loading of the programme. The net cost of such an investment strategy would be 32.87 bn. euro, an amount far less than the cost of the current adjustment programmes.

**Figure 15b. GDP per person employed  
(thousand euro, Greece)**

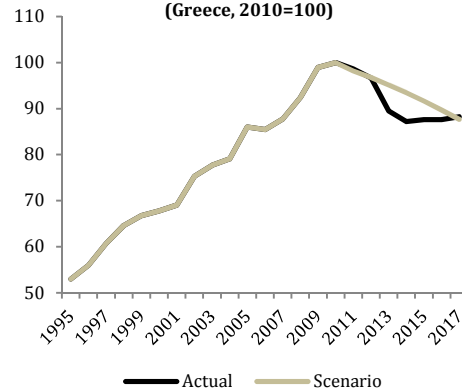


Source: AMECO (authors' estimations)

Moreover, such an investment strategy, facilitating a growth rate of GDP by 2% (see Figure 15b) per year, would have made the debt to GDP ratio stable and sustainable at a level of approximately 120% by 2016 assuming the historical

stock flow adjustments (see Figure 15d).

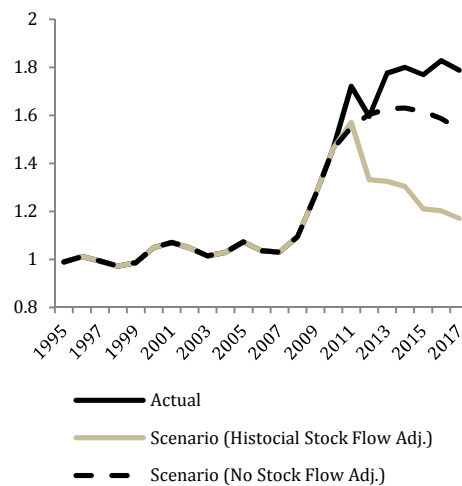
**Figure 15c. Nominal Unit Labour Cost  
(Greece, 2010=100)**



Source: AMECO (authors' estimations)

Critical for such a programme is our assumption of a wage pact between employers and employees assuming no labour cost increases and no firings during the adjustment period. This assumption leads to a plausible further assumption of no change in prices during the adjustment period due to the wage freeze and to moderate increases in the revenue of the general government.

**Figure 15d. Debt to GDP ratio (Greece)**



Source: AMECO (authors' estimations)

Finally, it is worth noting that our estimates substantially underestimate the impact of such an investment-led strategy since we have not mentioned

any multiplier effects, or equivalently increases in productivity due to increased capital deepening (increases in the capital-labour ratio). In particular a 10% change in capital deepening, facilitated by the investment strategy, is econometrically found to increase productivity by 7.2% in the case of Greece using data by EUROSTAT. In addition a marginal propensity to consume (MPC) equal to 0.44 in 2010 implies that the investment multiplier would stand at a value of 1.77.<sup>13</sup> It is evident that both magnitudes would affect output growth in a strongly positive manner.

## 7. Concluding Remarks

In conclusion, the current strategy of internal devaluation has been found to be unsuccessful, since the ULC and the competitiveness of the Greek economy have worsened compared to their pre-crisis levels. Besides, the volume of exports of goods and services has contracted since its pre-crisis level, though it currently stands as a higher ratio of GDP, due to the enormous decrease of the latter, during the crisis. In addition, the strategy has been costly both in terms of financing and social cohesion, unsustainable and politically unfeasible in the medium term.

Serious omissions in the planning of the associated policy, such as the developments in productivity and the structure of the exporting sector, have provided limited insights on the charting of the optimal strategy. Labour market reforms proved inadequate to bring about any reversal in this negative trend. In contrast, an investment-led

growth strategy would had, under the most strict conditions, similar end results with regard to competitiveness, and under favourable conditions would have proved a far better alternative. Such considerations are, from our perspective, critical given that a new dose of austerity and labour market deregulation being currently considered for the Greek economy.

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<sup>13</sup> The econometric method, specification and results results are explicitly presented in Passas (2016).

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## Appendix

**Table 1. Share of Exported Products in Total Exports of Goods**

	2015	2010
[334] Petroleum oils or bituminous minerals > 70 % oil	28.3%	24.2%
[684] Aluminium	5.1%	4.1%
[542] Medicaments (incl. veterinary medicaments)	3.8%	4.9%
[057] Fruits and nuts (excluding oil nuts), fresh or dried	2.9%	3.3%
[421] Fixed vegetable fats & oils, crude, refined, fractio.	2.7%	1.3%
[056] Vegetables, roots, tubers, prepared, preserved, n.e.s.	2.1%	2.0%
[034] Fish, fresh (live or dead), chilled or frozen	1.9%	2.3%
[682] Copper	1.8%	1.8%
[752] Automatic data processing machines, n.e.s.	1.6%	less than 1.0%
[058] Fruit, preserved, and fruit preparations (no juice)	1.6%	1.6%
[661] Lime, cement, fabrica. constr. mat. (excluding glass, clay)	1.5%	1.2%
[024] Cheese and curd	1.4%	1.1%
[263] Cotton	1.2%	1.9%
[679] Tubes, pipes & hollow profiles, fittings, iron, steel	1.2%	less than 1.0%
[122] Tobacco, manufactured	1.1%	less than 1.0%
[582] Plates, sheets, films, foil & strip, of plastics	1.1%	1.1%
[764] Telecommunication equipment, n.e.s.; & parts, n.e.s.	1.0%	1.0%
[893] Articles, n.e.s., of plastics	1.0%	less than 1.0%

Source: OECD (authors' calculations)