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Financialization and the Financial and
Economic Crises: The Case of Greece

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Abstract: The present essay analyzes the changing relationship between the real and the financial sector in the course of the long-run development of the Greek economy, focusing on the effects of financialization and on its connection to the current economic crisis. The first section offers a brief discussion of the basic tendencies characterizing the long-run development of the Greek economy over the past three decades. The second section examines the effect of financialization on several aspects of the real economy, including income distribution, gross capital formation, consumption and the evolution of the current account. In the third section, the results of the preceding analysis are linked to the outbreak of the current crisis, in an attempt to explain the reasons behind this crisis' excessive severity in the case of the Greek economy, while the fourth section concludes.

Key words: capital flows, current account deficit, debt crisis, financialization, Greek economy, trade imbalances

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Introduction

Finance became unleashed as the Bretton Woods system dissolved in 1971. The end of capital controls and the breakdown of the fixed exchange rates regime allowed finance effectively to decouple from industry and trade, creating violent flows of capital, as well as new forms of paper assets, that were to lead to the events of 2008. The era of financialization was upon us. It was within that environment that Europe's audacious experiment with monetary union was designed and implemented. For a small, deficit country like Greece, these two momentous phenomena (financialization and monetary union) were to prove pivotal.

The notion of financialization has been extensively used in the relevant literature in order to describe the state of affairs that followed the dissolution of the post-war economic order, with respect both to developments that took place in the context of national economies and to developments related to the operation of the international economic system. Although there is hardly a consensus in the literature as to the exact definition of financialization that should be adopted, the changes in the relationship between the financial and the real sector, leading to the strengthening of the former at the expense of the latter, constitute undoubtedly a central and critical aspect of this process. The objective of this study is to examine the available data with a view to establishing what can be discerned from it regarding the linkages between Greece's real economy with developments in the world of finance and with a special interest, naturally, in their macroeconomic effects.

The paper's objective cannot be conceived in isolation from the economic turmoil of the last few years, not only because the recent crisis is per se too important to be left out of a discussion of the macroeconomic developments of the past decades, but also in the sense that it constitutes, at least in part, the culmination of these developments. In a sense, the importance of a

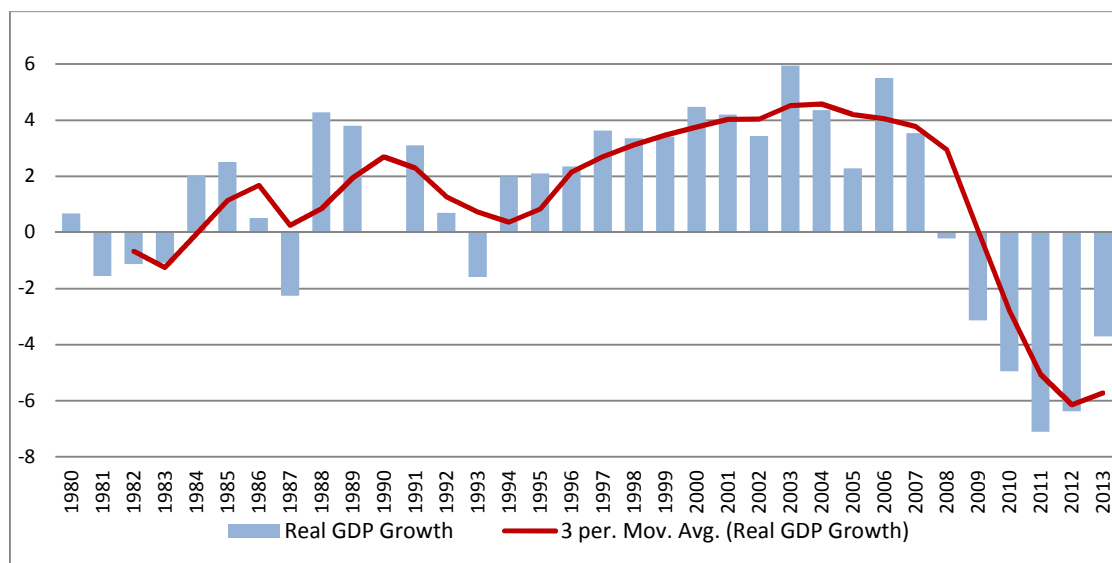
careful study of the links between financial markets and Greece's economy has a significance that rises in proportion to the economic and humanitarian catastrophe that unfolded since 2008.

Section I offers a general description of the long-run macroeconomic developments of the past three decades, leading to the outbreak of the crisis and to a discussion of its main effects. Section II analyzes these developments in greater detail by focusing on the exact effects of financialization on four crucial fields of the macroeconomy: income distribution, investment in capital stock, consumption, and the evolution of the current account. The examination of these fields starts with a brief discussion of the theories that have been proposed in the relevant literature concerning the channels through which the process of financialization may lead to changes in the respective macroeconomic variables. This discussion is then followed by an analysis of the data with a view to establishing whether these hypotheses are consistent with the actual course of events in the case of the Greek economy. Section III returns to the question of the relationship between financialization and the recent financial and economic crisis. In this context, the macroeconomic imbalances that the era of financialization brought about are highlighted and linked to the onset of the crisis, while the latter is analysed in greater detail with respect both to its underlying and to its immediate causes. Finally, Section IV reviews the study's most important results and concludes concerning the effect of financialization on the long-run evolution of the Greek economy in general and on the recent crisis in particular.

Section I: Long-run development in the era of financialization since the early 1980s and the economic and financial crises

The long-run development of the Greek economy over the past three decades can be examined through the dynamics – and the growth contribution – of the basic categories of effective demand, as well as of the financial balances of the main sectors. In this manner, the type of long-run development that prevailed in Greece prior to the crisis can be identified on the basis of the taxonomy employed by Hein (2012). Specifically, the possible types of long-run development according to this taxonomy consist in the categories of a debt-led consumption boom, of a domestic demand-led development, of a weak export-led development and of an export-led mercantilist development, while the inclusion of an economy in one or the other category depends on the sign of the main sectors' financial balances and of its current account, as well as on the relative growth contributions of the several components of demand.

Figure 1: Proportional rate of change of GDP at constant prices

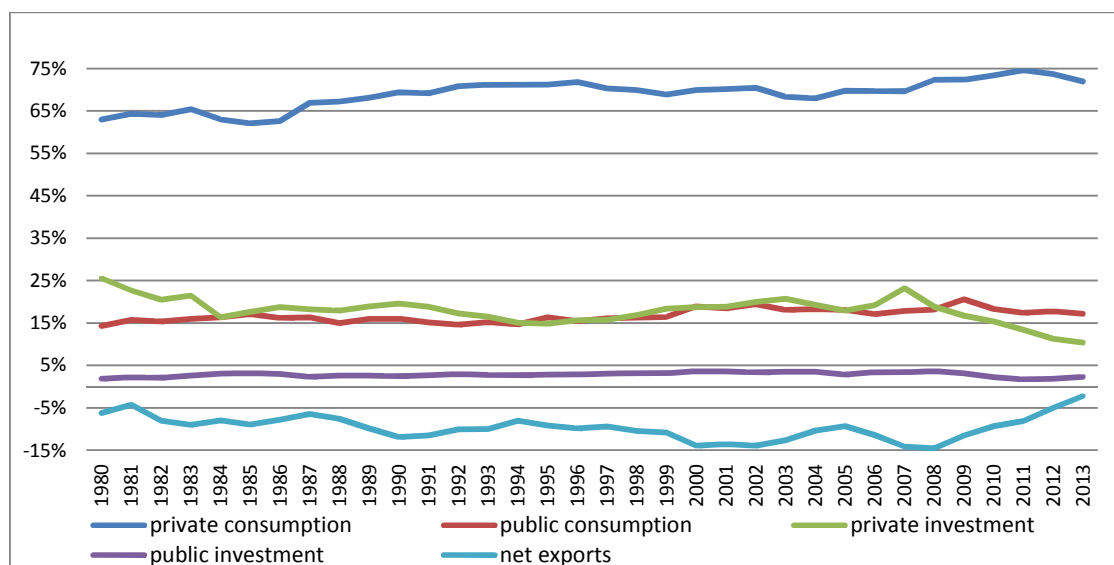


Source: AMECO



The general growth performance of the Greek economy throughout the last three decades is displayed in Figure 1, which contains the evolution of the proportional rate of change of GDP at constant prices from 1980 onwards. Arguably, the macroeconomic behaviour of the Greek economy in the aforementioned period can be divided into three separate phases. The first one lasted from the beginning of the period to approximately the mid 1990s and is characterized by a rather unstable long-run development, with the economy alternating often between positive and negative rates of growth. The second phase lasts from 1995 to 2007 and constitutes a period of constant growth in real GDP with a rate higher on average than 3.5% per year, while the third phase – which continues up to the present day – consists obviously in the deep recession that resulted from the financial and economic crisis of 2008. The severity of this recession can be easily seen in the figure, not only in the sense that the Greek economy has reached six consecutive years of negative GDP growth, but also in the sense that its negative growth rate has been greater – in absolute value – than 3% in all but the first year of the crisis.

Figure 2: Share of demand components in GDP



Source: AMECO



As far as the composition of total expenditure in the Greek economy is concerned, Figure 2 shows the evolution of the shares of demand components in GDP. Although public investment and public consumption appear not to have a clear trend, the evolution of their shares throughout the period under examination is far from being uninteresting. The share of public investment in GDP was between 2% and 3% throughout approximately the first half of the relevant period, but started rising after 1997, constantly surpassing 3% and reaching as high as 3.7% of GDP immediately before the onset of the present crisis. The reductions in the public investment budget in the context of the austerity policy that was adopted led to a rapid decline in public investment's share in GDP, the latter falling in 2011 and 2012 below 2% for the first time since 1980. The behaviour of public consumption is characterized by a similar pattern, although the fluctuations involved are significantly less marked. Its share in GDP rose from an average of 15.6% until the mid 90s to an average of 17.7% throughout the period 1995-2013, reaching its maximum value in 2009, when public consumption accounted for more than 1/5 of GDP. It also diminished as a result of the fiscal crisis, although – unlike the share of public investment – its value in 2013 (17.2%) is still quite high by the standards of the last three decades.

More interesting, and certainly more marked, are the fluctuations that have taken place in the other three demand components, namely private consumption, private investment and net exports. Private consumption's share in GDP shows a clear upward trend in the period under study, starting at 63% in 1980 and reaching as high as 74.6% in 2011, its average value being higher than 70% during the years 1990-2013. Although private consumption at constant prices has been falling in absolute terms since 2010 at rates greater than 6% per annum, its share in GDP exhibits only a mild decline from the aforementioned maximum, while it remains significantly higher than 70%.

On the contrary, the economic crisis has had a devastating effect on the share of private investment in GDP, reducing it from 23.2% in 2007 to just 10.4% in 2013. Private investment accounted for more than a quarter of GDP in 1980, but this share declined rapidly, falling to 14.8% in 1995. The period of fast growth that followed was characterized by a rise in the share of private investment, which fluctuated around 20%, without however approaching again its historically maximum value.

Finally, the share of net exports in GDP has been negative throughout the entire period under consideration, although it has been subject to substantial fluctuations. The share was equal to 6.2% in 1980 but deteriorated dramatically reaching -11.9% ten years later. After a small improvement in the mid 90s, the share of net exports declined again, reaching -14.5% at the very onset of the international crisis. From then on, it exhibits a marked improvement as a result of the sharp reduction in the demand of imports, rising to -8.1% in 2011 and to -2.2% in 2013.

The contribution of demand components in the growth of GDP at constant prices is displayed in Figure 3, although the available data do not distinguish between public and private investment. According to the data, the recessions during the 1980s were associated, though not necessarily in a uni-directional causal manner, with the negative effect of gross investment and – to a lesser extent – net exports. However, this pattern changes from the mid 1990s onwards, net exports becoming the main, if not the only, factor that had a negative impact on GDP growth. From that point and until the emergence of the crisis, economic growth is based primarily on the advance of private consumption, the latter accounting on several years for more than half of the growth in real GDP.

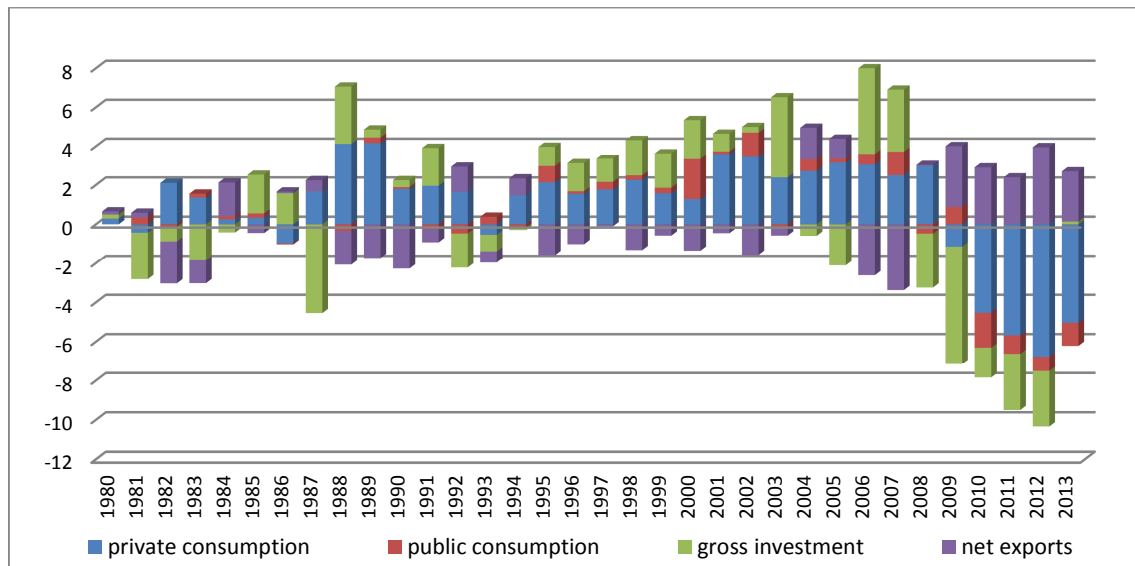
Public consumption also correlates well with aggregate demand, though its effect is small compared to the rest of the demand components. Meanwhile, the contribution of gross investment is generally positive, but

displays a certain irregularity, being substantial on some years and relatively small, or even negative, on others.

The onset of the crisis led to a dramatic reversal in the pattern that the Greek economy followed. From the rather irregular pattern of the 1980s and the steady-growth due, primarily, to private consumption of the period 1994-2007, the years of the crisis are characterized by a recession caused by the collapse of private consumption and gross investment, while net exports become the only demand component that leads to small but consistent contributions to GDP.

What can be observed, in a nutshell, is that the pre-crisis pattern has been turned upside down, without however any significant changes with respect to the relative importance of the several components. Private consumption is still the dominant component, while the effect of net exports is still not strong enough to counterbalance the effects of the other components that point in the opposite direction. An interesting observation is that gross investment was the first component to be affected by the crisis, contributing massively to the recession in 2008 and 2009. On the contrary, the contribution of private consumption to GDP growth was positive, and quite strong, in 2008, turning into mildly negative the next year. It is only from 2010 onwards that private consumption collapses, dragging the economy to unprecedented rates of real GDP reduction.

Figure 3: Contribution to GDP at constant prices of main demand components



Source: AMECO

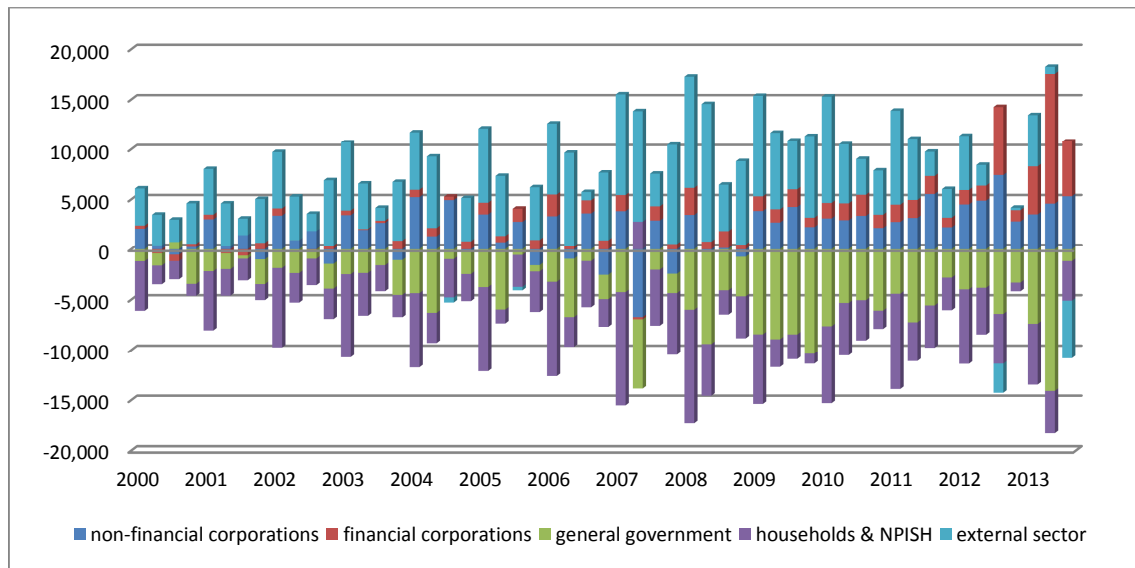
On the basis of the above data, the historical experience of the Greek economy could be categorized either as a debt-led consumption boom or as a case of domestic demand-led development. The existence of chronic deficits in the current account, the positive growth contribution of domestic demand (especially private consumption), and the negative growth contribution of net exports are characteristics that both these regimes share. However, the two regimes carry different implications for the financial balances of the main sectors. Although both imply the existence of positive financial balances for the external sector, a debt-led consumption boom also implies negative financial balances for the household sector, since the growth in consumption is financed through private debt. On the contrary, a domestic demand-led path of development implies positive financial balances for the household sector, indicating that although the growth contribution of domestic demand will be positive, private consumption will not be the dominant factor.

The evolution of the main sectors' financial balances on a quarterly basis for the period 2000-2013 is portrayed in Figure 4, validating the view that the long-run development of the Greek economy should be characterized as a debt-led consumption boom¹. The balances of both the household sector and the general government are negative across the board, thus counteracting the consistently large positive balances of the external sector. As far as the balances of the corporate sector, financial and non-financial, are concerned, they display a certain irregularity during the greatest part of the period under examination, their absolute values never becoming especially large in either the positive or the negative direction. Taking into account the obvious qualifications arising out of the relatively small period of time for which official data are available, the conclusion concerning the reliance of Greece's economic growth on the accumulation of both public and private debt seems unavoidable. It should be mentioned however that the overall indebtedness of the private household sector never proceeded too far in the case of the Greek economy, at least in comparison to the respective state of affairs in most members of the euro area².

¹ The data on the main sector's balances are obtained from the Hellenic Statistical Authority's non-financial accounts of the main sectors. This source was chosen over AMECO, since in the latter case no distinction is made between the financial and the non-financial corporate sector, while the Eurostat database contains no available data for the Greek economy. Sectoral balances are defined as net savings plus capital transfers receivable minus capital transfers payable minus gross capital formation plus consumption of fixed capital minus acquisitions less disposals of non-financial non-produced assets. According to the Hellenic Statistical Authority, the data presented here are temporary, implying that revisions may take place in the future.

² This is true both when the magnitude of households' liabilities is compared to GDP and when it is compared to deposits. Some data concerning the total indebtedness of Greek households are provided in Section II.3.

Figure 4: Net lending (+) / net borrowing (-) of main sectors (millions of €)



Source: Hellenic Statistical Authority

A final comment that deserves to be made with respect to the time-path of sectoral balances relates to the new pattern that seems to emerge during the years of the crisis, characterized by consistently positive balances of the corporate sector, presumably due to the corporate sector's engagement into a process of deleveraging. This movement of the corporate sector into a net lending position has taken place mainly at the expense of the external sector, whose balances have been significantly reduced, and even turned negative on some occasions. In the immediate future, it is possible that the pressure exerted upon the external sector will become even larger, given both the further reduction of the general government's fiscal deficit and the attempt by households to deleverage. However, given the rather mediocre export performance of the Greek economy, it is far from clear whether the entire domestic economy can move, at the same time, into a net lending position at the expense of the external sector alone.

Section II: Long-run effects of financialization on the economy through different channels

The present section reports on data concerning the several channels through which the process of financialization affects the real economy. The analysis will focus on those fields of the economy that have been highlighted in the relevant literature as prone to the onset of financialization, namely income distribution, investment in capital stock, consumption and the current account. These four areas will be examined in the respective subsections that follow, in the context of which the available data for the Greek economy will be presented and interpreted.

Section II.1: Financialization and distribution

According to the relevant literature, one of the most important effects of financialization is to be found in its tendency to facilitate a redistribution of income at the expense of the relatively low wage incomes (Hein 2012). This redistribution is usually brought about through the decline in the bargaining power of organized labour or through the rise in overhead costs, but other channels have also been proposed in the literature, including the modifications that financialization causes in the sectoral composition of the economy. Irrespective of the exact channel through which such redistribution may take place, its effects should be observed in the time path of both the functional and the personal distribution of income. The hypothesis, in other words, that wage income suffers the most implies that the outcome of this process should be manifested not only in a reduction in the share of labour in total income, but also in a rise in income inequality at a personal or a household level.

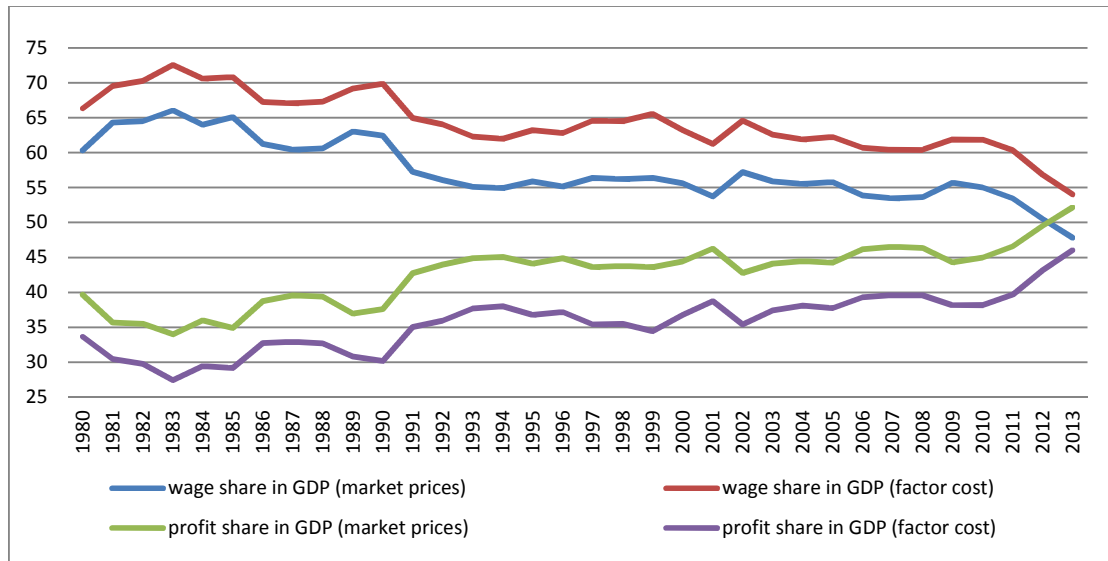
The data presented in Figure 5, referring to the adjusted share of wages, clearly show that the functional distribution of income in Greece exhibits a path consistent with the above-mentioned hypothesis, in the sense that the share of wages in GDP actually exhibits a declining tendency in the period under consideration. Specifically, it exhibits a temporary rise in the early 1980s, reaching a maximum of 72.6% in 1983, thereafter entering secular decline at the beginning of the following decade. It stabilizes at a level just above 60% during the years 2006-2011, and then declines again at a considerably high pace, falling to 56.9% in 2012 and further to 54% in 2013, due to the adverse effects of the austerity policies adopted with a vengeance since 2010.

However, the interpretation of this decline in the adjusted share of wages as an outcome of financialization is neither straightforward nor possible to be econometrically determined in the case of the Greek economy. Attempts towards such a determination can be found in the relevant literature, usually with reference to a subset of advanced industrial economies³. Nevertheless, the lack of sufficient official data on the time-path of variables that are used as a measure of the process of financialization in the literature precludes the possibility of a similar econometric estimation with respect to the Greek case. As a result, no decisive answer can be given concerning whether the secular decline observed in the share of labour can indeed be attributed to the effect of financialization on Greek economy or represents the outcome of the operation of different forces.

³ For instance, Hein & Schoder (2011) examine the effect of rising long-term real interest rates on income distribution in Germany and the U.S., while in the studies by Kristal (2010) and Stockhammer (2009) variables related to the process of financialization are included in the estimated equations' right-hand sides for a set of 16 and 15 industrial economies respectively, the Greek economy being excluded in both cases. Finally, the study by Tomaskovic-Devey & Lin (2011) examines the effect on income distribution of the increased dependence on earnings through financial channels, where the ratio of financial receipts over business receipts is used as the measure of this dependence.



Figure 5: Evolution of functional distribution of income



Source: AMECO

Some comments on this development of labour's share can however be made, even though they cannot be supported by official data on the relevant magnitudes' time series. The hypothesis of a shift in the distribution of income due to the declining bargaining power of labour seems to be at least compatible with developments that have taken place in the Greek economy over the past decades. Although the Greek labour movement was quite strong during the late 70s and early 80s, approximately during the first decade after the collapse of the military dictatorship and the restoration of parliamentary democracy and probably as a result of this restoration, this strength and the consequent bargaining power of organized labour started to weaken in the following years, considerably so after the mid 90s. This gradual erosion of labour's bargaining power was probably the delayed result of the end of the postwar "Golden Age" in the early 70s and the subsequent emergence of low, or negative, growth rates and substantial unemployment, while the reasons for the significant time lag involved should probably be sought at the peculiarities of postwar Greek political history. Although no reliable data exist

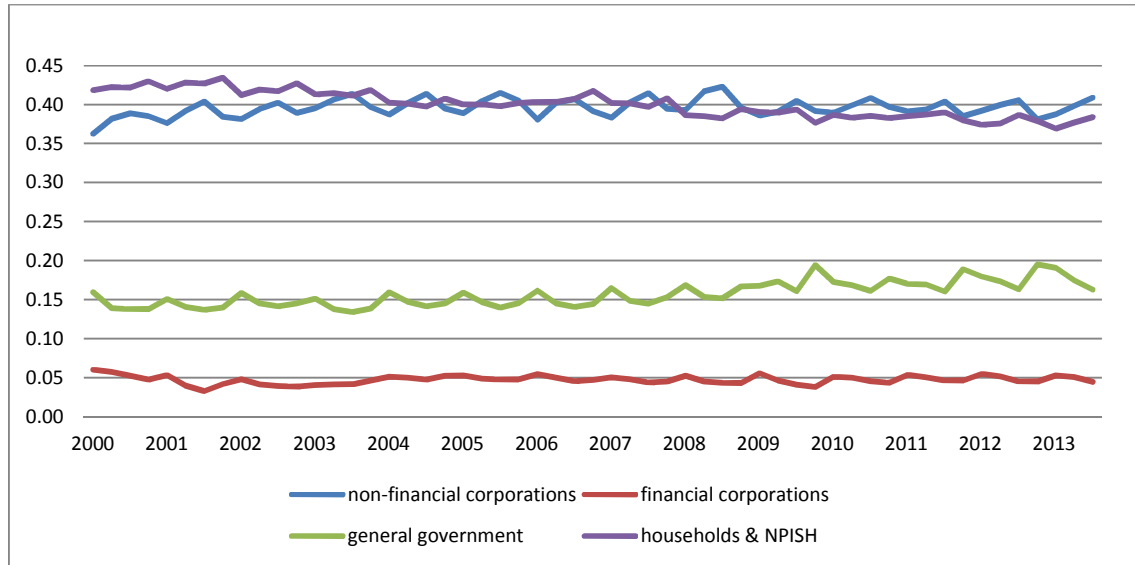


on this account, the significant decline in union density after the mid 80s or early 90s is quite straightforward to anyone having even a superficial knowledge of the Greek economy and seems to provide with another piece of the puzzle of Greek labour's weakened bargaining power. Moreover, this weakened position of labour led to, and was at the same time reinforced by, the proliferation of part-time employment as well as other similar schemes from the late 90s onwards, while the effect of the on-going crisis and of the recent legislative reforms that were undertaken in the context of the Greek adjustment programme is probably only too obvious.

On the other hand, the hypothesis of a declining wage share due to shifts in the economy's sectoral composition, especially through the downsizing of the government sector, does not seem to provide with an adequate explanation, at least for the last part of the period under examination, for which official data do exist. Figure 6 shows the time-path of the main sectors' share in total gross value added on a quarterly basis and from 2000 onwards, the share of general government being obviously trendless until the onset of the current crisis⁴. However, the fact that available data only cover the period after 2000 implies that the hypothesis linking the shift in income distribution to a modified sectoral composition cannot be entirely ruled out. This is especially so if it is taken into account that the most successful instances of government downsizing and of opening up possibilities for corporate activity, i.e. the banking sector and telecommunications, had already proceeded substantially before the turn of the century.

⁴ The rise in general government's share, mainly at the expense of the household sector, during the crisis years should probably be attributed to the austerity policy adopted in the country's attempt to reduce its fiscal deficit.

Figure 6: Shares of main sectors in total gross value added (current prices)



It would also be of interest to examine whether this redistribution of income from wages to profits corresponds also to a rise in rentier share in net national income, especially given the importance of this variable in the theoretical literature on the effects of financialization. The calculations have followed the methodology proposed by Duenhaupt (2011), in the context of which the rentier share is essentially defined as the ratio of the household's sector net property income to net national income. The latter is simply the sum of the net national incomes corresponding to each one of the main sectors, apart from the external sector which is excluded from the calculations. The results, presented in Figure 7, do not support the view of a rise in rentier share as a result of financialization in the Greek economy, at least for the rather small period of time for which available data exist. Having said that, it must be emphasized that much of economic rent generated within the Greek macro-economy has traditionally been kept "off the books".

Figure 7: Evolution of rentier share in net national income



Source: Hellenic Statistical Authority

In terms of official statistics, and apart from a steep rise in 2007 which was mirrored by an equally steep decline in the share of retained earnings, the tendency for the rentier share seems to be a rather declining one, falling from almost 13% in 2000 to just 5.3% in 2011, although it does exhibit some slight increase during the last two years⁵. The share of retained earnings does not exhibit any clear trend, although it does display some marked fluctuations, while the share of employees' compensation was steadily rising until 2010, but falling ever since. However, it should be taken into account that the rentier share in net national income was probably already too high in the beginning of the period examined, presumably as a result of the stock market bubble of the time. In this respect, what appears to be a declining trend, with the obvious exception of 2007, may actually constitute simply a return to normalcy after the exceptionally high values of the rentier share during the most fervent phases of the rise in stock market prices.

⁵ According to the Hellenic Statistical Authority, data for periods 2000-2004 and 2005-2013 are not comparable due to the revision of the basis year of annual national accounts that took place in 2011. This weakness of the available data is also relevant for the data that will be presented in the next subsection.

More importantly, during the years of the crisis the data show a rising rentier share at the expense *both* of retained earnings and of employees' compensation. No such rising tendency was prevalent in the preceding years of financialization.

Figure 8: Measures of distribution of income among households



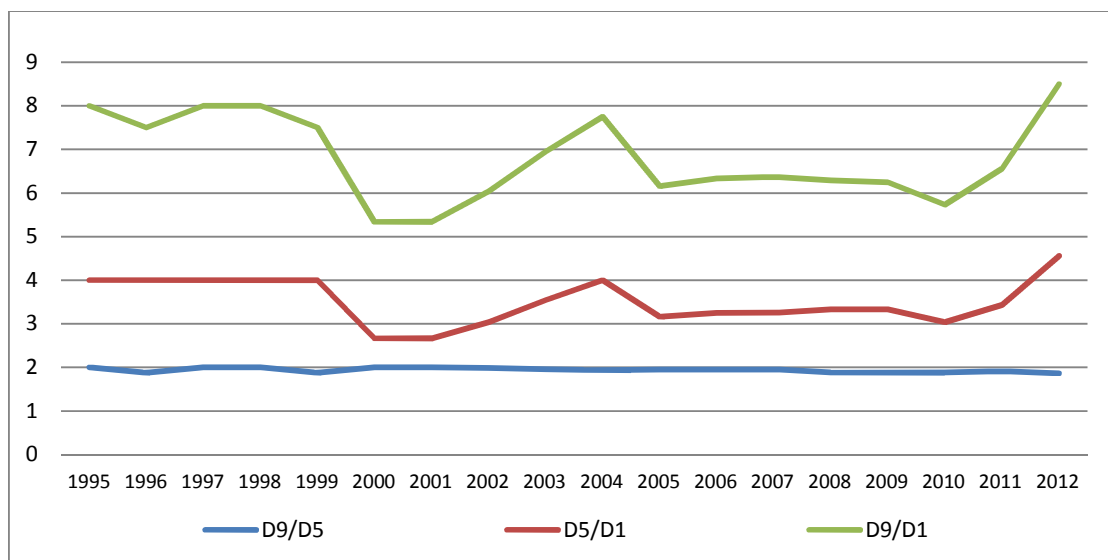
Source: Eurostat

Turning to the issue of the personal distribution of income, Figure 8 presents the evolution of the Gini coefficient viz. disposable income, of the ratio of median to mean equivalised income and of the ratio of income shares of the upper and the lower quintile of income distribution. Both the Gini coefficient and the ratio of median to mean income display a remarkable constancy throughout the entire period, although the latter does increase significantly in the last two years. The Gini coefficient also increases in these same years, rising from 32.9% in 2010 to 34.3% in 2012, without however exceeding values that should be considered consistent with historical experience. On the contrary, the ratio of the income shares of the upper to the lower quintile exhibits substantial fluctuations, starting at a value of 6.5 in

1995, declining to values around – and below – 6 in the period 1999-2010, and rising again to its initial levels by the end of the period under consideration.

Overall, the data seem to suggest that, as financialization proceeded in Greece, inequality remained steady in terms of the personal distribution of income. On the contrary, the period of significant growth that preceded the crisis seems to have suppressed income inequality, albeit in small and certainly not decisive steps. Unsurprisingly, the crisis led to a reversal of this path, pushing inequality back to its initial levels. These rough conclusions are also supported by the data presented in Figure 9, which displays the evolution of ratios of shares of equivalised income corresponding to the respective deciles of income distribution. Although the ratio of income shares of the ninth to the fifth decile remains more or less constant throughout the entire period, the other two ratios portrayed in the figure share the aforementioned pattern of decreases through the greatest part of the period examined, that were followed by a steep rise in the years of the crisis.

Figure 9: Ratios of deciles' shares of national equivalised income



Source: Eurostat

In conclusion, the data presented in this subsection demonstrate the existence of a significant shift in functional income distribution at the expense of labour, although the lack of sufficient data precludes the possibility of an econometric testing of whether this shift can be attributed to the process of financialization. Although reasons do exist to believe that this process may have played some role in this redistribution, such an interpretation is somewhat weakened by the fact that no rising rentier share in net national income can be detected. As far as the personal (household) distribution of income is concerned, no evidence of a similar redistribution at the expense of lower wage incomes during the years of financialization can be detected, although the lack of data on top incomes implies that no decisive answer can be given. Nonetheless, the data hint that such a process may have indeed been taking place in the last two or three years as a result of Greece's economic crisis.

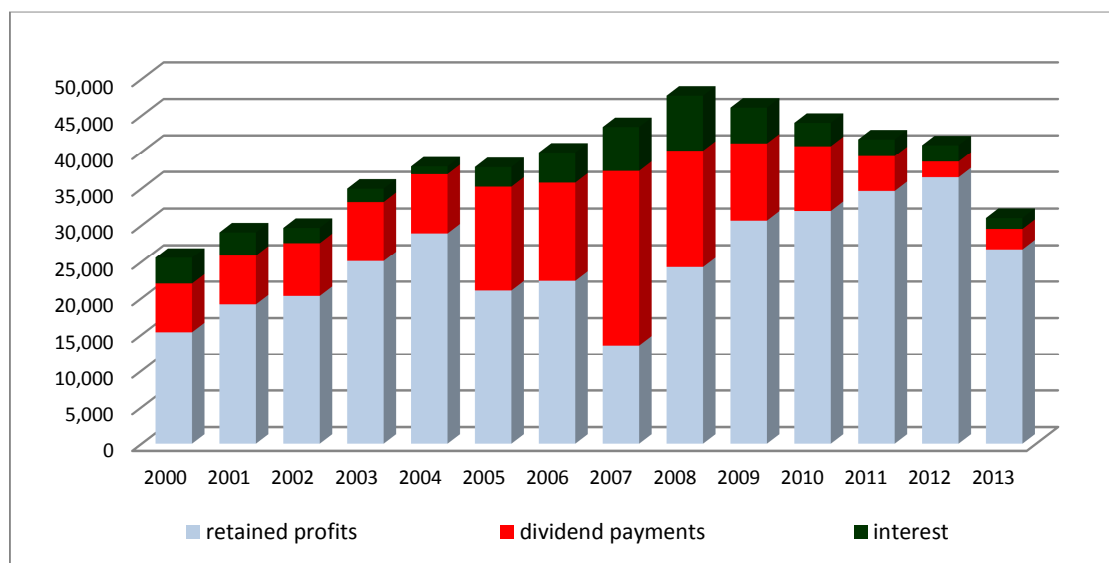
Section II.2: Financialization and investment in capital stock

Financialization has had a major impact on investment in capital stock. Two main channels have been proposed (Hein 2010, Hein & van Treeck 2010), through which the process of financialization affects gross investment. The first is related to the internal financing of gross investment (the “*internal means of finance channel*”), while the second pertains to the substitution of the “more uncertain” investment in physical capital with investments in financial “assets” (the “*preference channel*”).

Specifically, the first channel affects real investment through the imposition of a greater distribution of profits to the firms' shareholders, which reduces the fraction of profits that are retained in order to be reinvested. Under this scenario, one would expect to see in the data not only a modified distribution of the non-financial corporate sector's gross operating surplus,

but also a relative decline in the share of total investment that is internally financed. As far as the second channel is concerned, it correlates with short-run profits stemming from financial investments, and it should, therefore, be accompanied by a rising contribution of financial profits to the operating surplus of non-financial corporations.

Figure 10: Distribution of gross operating surplus of non-financial corporations



Source: Hellenic Statistical Authority

The respective data for the Greek economy are shown in Figures 10, 11 and 12, albeit for an admittedly small period of time, since no available data exist for the period prior to 2000. All data come from the Hellenic Statistical Authority and all suffer from an additional weakness, since data for periods 2000-2004 and 2005-2013 are not comparable due to the revision of the basis year of annual national accounts which took place in September of 2011.

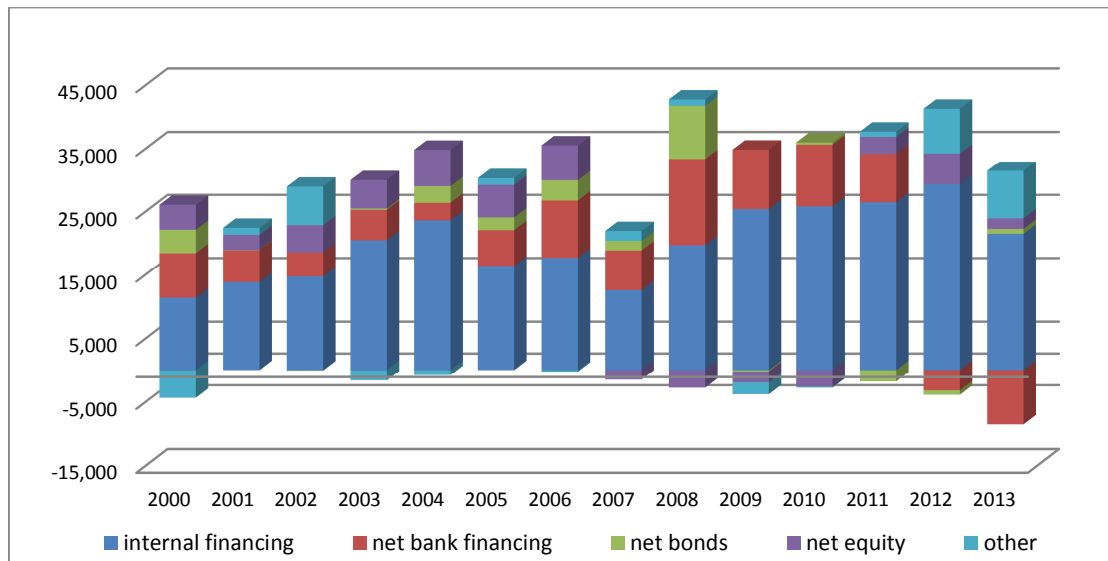
Figure 10 displays the distribution of the gross operating surplus of the non-financial corporate sector between retained profits, dividend payments and interest. Retained profits are defined as the difference between the gross

operating surplus and the sum of dividend and interest payments, hence they are not identical to corporations' gross savings.

The data presented are rather hard to interpret on the basis of the "internal means of finance" channel. No indication of a rising share of dividend payments in gross operating surplus can be detected for the period 2000-2004, while the period 2005-2013 starts with a substantial share of dividend payments which becomes extremely large in 2007 and declines rapidly from 2009 onwards, leaving retained profits to constitute the bulk of non-financial corporations' gross operating surplus. The data seem to suggest that there had been, during the pre-crisis years, a certain tendency towards a higher share of dividends, as well as interest payments, which however seems to have lasted just for a few years. Admittedly, the non-comparability of the data between the two periods mentioned above does not help in the assessment of this tendency's strength.

An alternative method of assessing the validity of the "internal means of finance" channel for the Greek economy is through the identification of the net sources of finance for non-financial corporations. The results are displayed in Figure 11, suffer from exactly the same weaknesses as those of the previous figure, and are calculated according to the approach developed by Corbett & Jenkinson (1997). Hence, all values represent annual flows, while internal financing is defined as the gross savings of the non-financial corporate sector. Another weakness of the data that deserves a mention is that whereas the sum of financing sources should be equal to the respective year's gross investment of non-financial corporations, in practice the two magnitudes diverge. This divergence is, indeed, quite marked in some years.

Figure 11: Net sources of finance for non-financial corporations (millions of €)



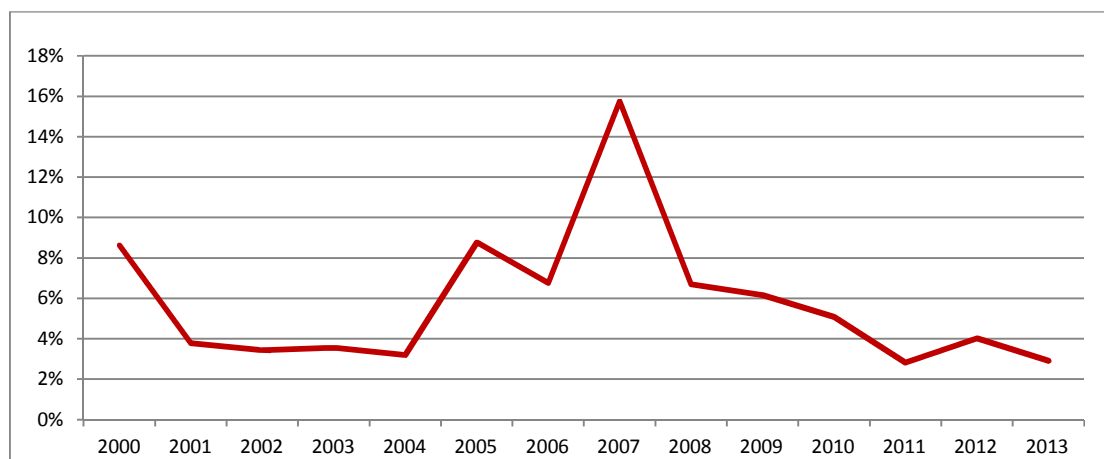
Source: Hellenic Statistical Authority, Bank of Greece

It should therefore come as no surprise that the data presented in Figure 11 are also difficult to be interpreted, though a common pattern with the results presented in the previous figure is rather discernible. Internal financing shows no sign of retreat in the period 2000-2004, while its relative contribution is at very low levels during the years 2005-2008, before it rises dramatically after the onset of the financial crisis. In 2013, internal sources have come to represent 93.8% of non-financial corporations' finance, from merely 50% in 2006 and 49.2% in 2008. Net bank financing displays exactly the opposite behaviour, accounting for 30.8% of total financing in 2007 and for 34.2% in 2008, while it has moved into negative territory from 2012 onwards. In contrast, net equity financing had been negative during the period 2007-2010, and turned positive again from 2011 onwards, without reaching the high values that characterized it until 2006. The conclusion drawn from these results is that, as before, while some evidence of non-financial corporations'

declining reliance on internal financing does show up, they are on the inconclusive side.

Turning to the examination of financialization's second effect on investment in capital stock, i.e. of the *"preference channel"*, Figure 12 presents the evolution of financial profits' contribution to the gross operating surplus of the non-financial corporate sector. The magnitude displayed in the chart is calculated as the ratio of non-financial corporations' property income to their gross operating surplus, while the qualification concerning the non-comparability of the data for periods 2000-2004 and 2005-2013 continues to apply. In the former period, the contribution of financial profits declines dramatically from 8.6% in 2000 to only 3.8% in the following year, probably as a result of the stock market bubble that burst during the same period. Beyond that stock exchange crash, it remained steadily low until 2004.

Figure 12: Contribution of financial profits to non-financial corporations' gross operating surplus



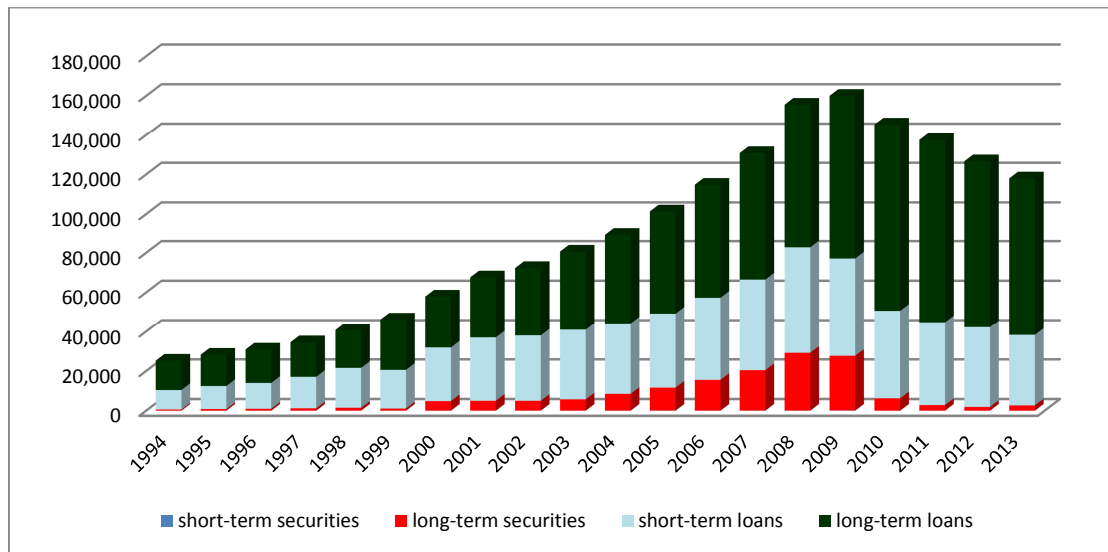
Source: Hellenic Statistical Authority

Post-2004, the contribution of financial profits is in general higher, exhibiting a sharp rise in 2007, but continuously declines once Greece's Great Recession began in 2008, falling below 3% by the end of the period under consideration.

As in the cases of figures 10 and 11, the data do not lend themselves to some straightforward conclusion concerning either the existence of a “*preference channel*” or its actual strength. Moreover, even the evidence that does validate the hypothesis may be less than fully reliable, since it depends on the sharp dataset discontinuity at around 2007. In conclusion, and on the basis of the available data, no decisive answer can be given to the question of financialization’s effect on investment in capital stock in the Greek economy.

What is certainly clear however is the fact that the last two decades have been characterized by a marked increase in the gross indebtedness of the non-financial corporate sector. This increase is plainly obvious in the data presented in Figure 13, showing the time-path of non-financial corporations’ financial liabilities, expressed in current prices and representing end-of-year stocks. These liabilities rose quite spectacularly from a total magnitude of 25.2 billion in 1994 to over 160 billion in 2009, before the onset of the crisis leads to an equally fast process of deleveraging, as a result of which financial liabilities were reduced to just under 118 billion by the end of 2013. It should be mentioned, nevertheless, that despite the rapid increase of these liabilities between 1994 and 2009, it is doubtful whether their absolute values can be considered exceptionally large, especially when compared to the respective magnitudes for other European economies.

**Figure 13: Gross indebtedness of the non-financial corporate sector
(millions of €)**



Source: Bank of Greece

As far as the internal composition of these liabilities is concerned, long-term loans have consistently been the most important category, comprising close to or higher than 1/2 of total financial liabilities throughout the entire period examined, this fraction rising substantially in the last four years due to the corporate sector's attempts at deleveraging. Short-term loans rose from 9.8 billion in 1994 to 53.6 billion in 2008 and then declined again to 35.7 billion by the end of 2013, while securities, though they had always constituted but a small fraction of the total, have reasonably collapsed after the crisis, their total value being equal to only 2.7 billion in 2013 from 29.2 billion in 2008.

Section II.3: Financialization and consumption

The relationship between financialization and consumption constitutes a crucial area in the relevant literature, both because it offers a plausible interpretation of the dramatic rise in private debt (that is observable in many developed economies over the past few decades) and because it helps explain

a long-run, consumer-driven development despite the observed reductions in labour's share in national income.

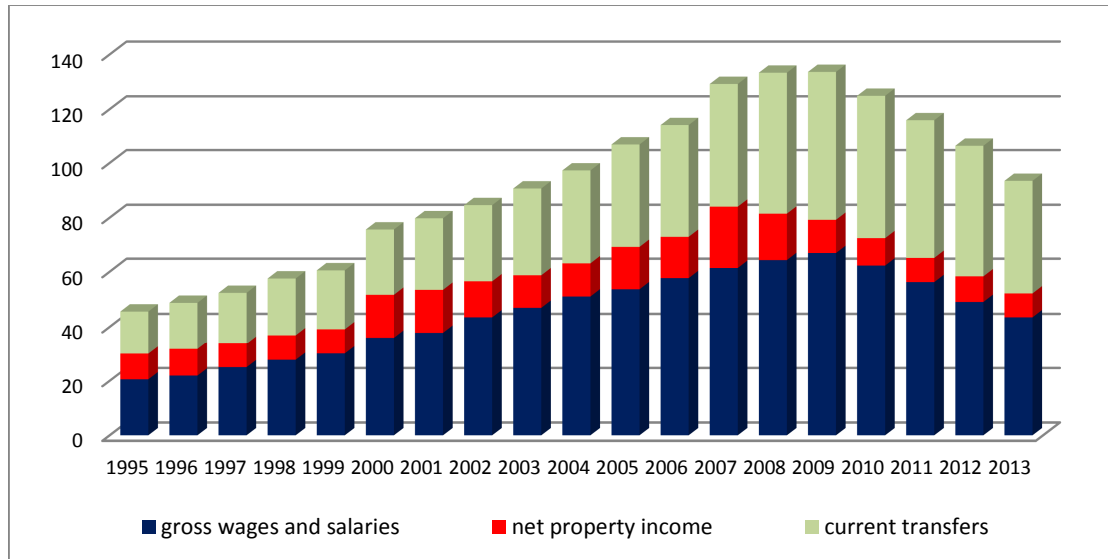
According to the most influential theories that have been proposed in this literature, the advance of financialization has led to declining wage shares and, at the same time, facilitated the constant growth of private consumption, even for households in the lower income categories. A combination of new financial instruments and a socially or psychologically induced persistence of consumption patterns are often cited as contributors to this dynamic (Barba & Pivetti 2009, Cynamon & Fazzari 2008). This persistence may be the outcome of habitual behaviour that was initially shaped on the basis of lingering expectations of long-term income improvements that were formed in more prosperous times. The latter may have been aided and abetted by the proliferation of various financial instruments which give households the opportunity to “lever up” their standard of living even in the face of declining or stagnant real wages.

As a result, the process of financialization is viewed by many in the literature as leading to possibilities of persistently high consumption of low income households. As long as these new financial instruments do not lead to the bursting of the forming bubbles, they allow for the substitution of real wages with rising private debt.

It is, alas, not straightforward to assess the validity of these theories as far as the Greek case is concerned. Although it is true, and has already been demonstrated, that economic growth in Greece in the past two decades relied heavily on private consumption, and even though the Greek economy did see a dramatic proliferation of new financial instruments over the past 10-15 years, the levels of private debt are still quite low in comparison to other developed nations. It could probably be said that the process of financialization arrived late in Greece in comparison to N. America or W. Europe, as well as that it was abruptly interrupted by the financial crisis of 2008. If this is the case, then

the data should be expected to indicate the existence of the aforementioned phenomena related to financialization, but not their dominance.

Figure 14: Income components of households and NPISH (billion of €)

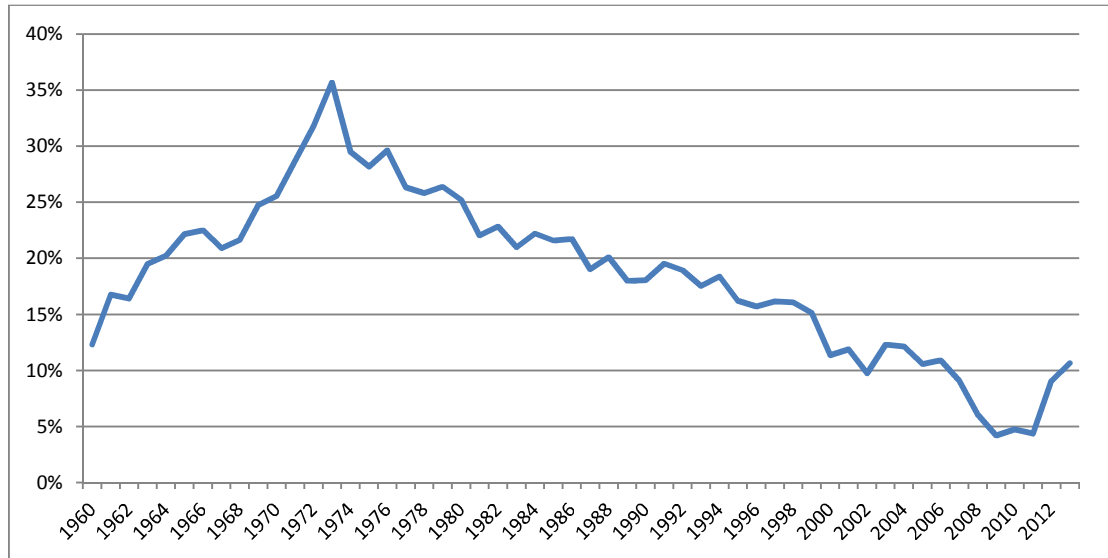


Source: AMECO

The data concerning the distribution of households' income among its basic components, i.e. wages and salaries, net property income and current transfers, do not indicate that. As can be seen from Figure 14, the sum of wages and current transfers never stopped constituting the bulk of households' income, its minimum contribution being equal to 79.3% in the very first year of the period for which available data exist. The share of property income was roughly equal to 1/5 until 2001, when it started declining quite significantly. After a sharp rise in 2007, it continued along its downward path and fell below 10% of total household income once the crisis was in full swing. Moreover, if it is assumed that this share's elevated values in 2000-2001 are related to the stock market bubble of this relatively short-lived period, the decline in the contribution of net property income could probably be said to commence even earlier, namely from 1997 onwards. If that is

correct, then this declining tendency of net property income seems to have been interrupted by the stock market mania of the following years, only to reemerge once the bubble burst in 2000 and the economy returned to its normal path.

Figure 15: National gross savings rate (gross savings over GDP)



Source: AMECO

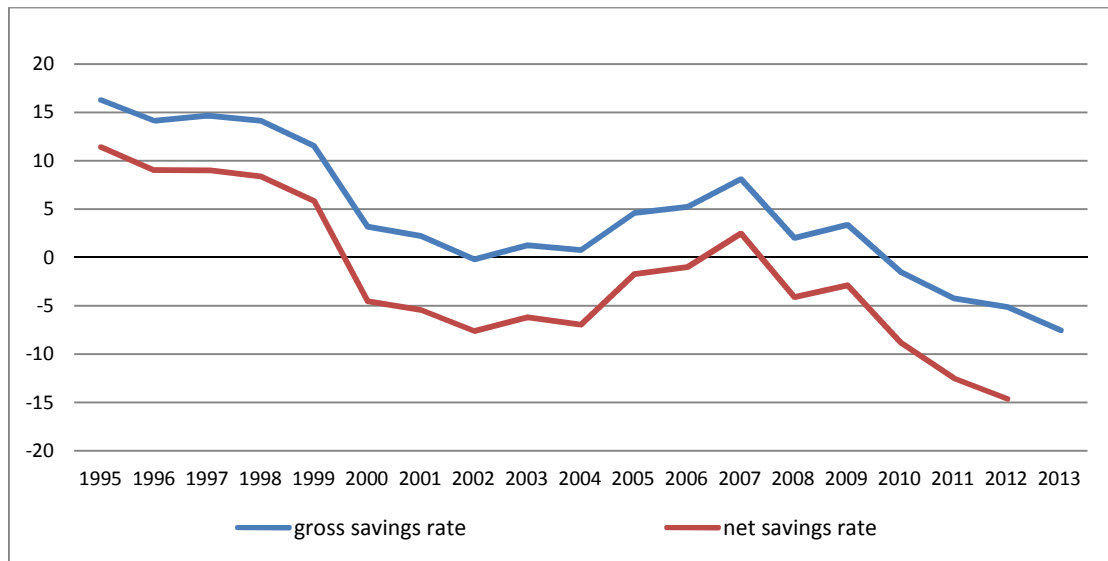
Figures 15 & 16 add weight to the hypotheses concerning the effects of financialization on consumption, at least with respect to the evolution of the saving rate. Figure 15 shows the evolution of the gross saving rate for the total economy, defined as gross savings over GDP, from 1960 to 2013, i.e. for a period starting before the onset of the process of financialization. The national savings rate rose dramatically from 1960 until the early 1970s, reaching a maximum value of 35.7% of GDP in 1973. From that point onwards, it displays a very clear declining tendency that lasted until the onset of the crisis, reaching the exceedingly low value of 4.2% in 2009, before bouncing back during the crisis years surpassing again 10% of GDP. As far as households' savings in particular are concerned, Figure 16 shows the evolution of both the

gross and the net savings rate, albeit for a period starting in 1995 (due to lack of available data prior to that year)⁶. The diminution of the propensity to save is obvious here too, with the exception of the period 2005-2007 which was characterized by a steep but temporary rise that caused no upward trend to reemerge, not even after Greece entered its crisis phase. Once in crisis “mode”, Greek households’ savings rates continued to fall.

The decline of the savings rates after the commencement of the crisis, and especially their movement into negative territory, should probably be attributed to households’ attempts either to retain, at least to the extent possible, a standard of living they had grown accustomed to or, more likely, to continue to service their debts through running down their deposits. On the contrary, the sharp decline observed for the period 1995-2002 does lend significant support to the hypotheses concerning financialization’s effect on consumption, since it probably reflects a combination of increased availability of credit and a declining share of labour in national income (Frank et al. 2010, Iacoviello 2008).

⁶ The gross savings rate is defined as the ratio of gross savings over gross disposable income, the numerator being equal to gross disposable income minus consumption expenditure plus the change in households’ net equity in pension funds. Hence, assuming no change in the latter variable, a negative gross savings rate implies that consumption expenditure is higher than disposable income. When this is so, a fraction of households’ expenditure is financed through credit, through running down deposits, or through the revenues ensuing from the sale of assets. In the case of net savings rate, a negative sign is even more likely since the consumption of fixed capital is subtracted both from the numerator and from the denominator of the fraction.

Figure 16: Savings rate of households and NPISH (% of disposable income)



Source: AMECO

Another glance on the relationship between financialization and consumption can be gained through the analysis of households' financial assets and liabilities. We have already shown that the difference between the net acquisition of assets and the net incurrence of liabilities, i.e. the households' sector financial balances, was consistently positive over the last 20 years. Nevertheless, the evolution of both the assets' and the liabilities' distribution among their several components can be used as an important indicator of the extent to which financialization affected households' consumption behaviour.

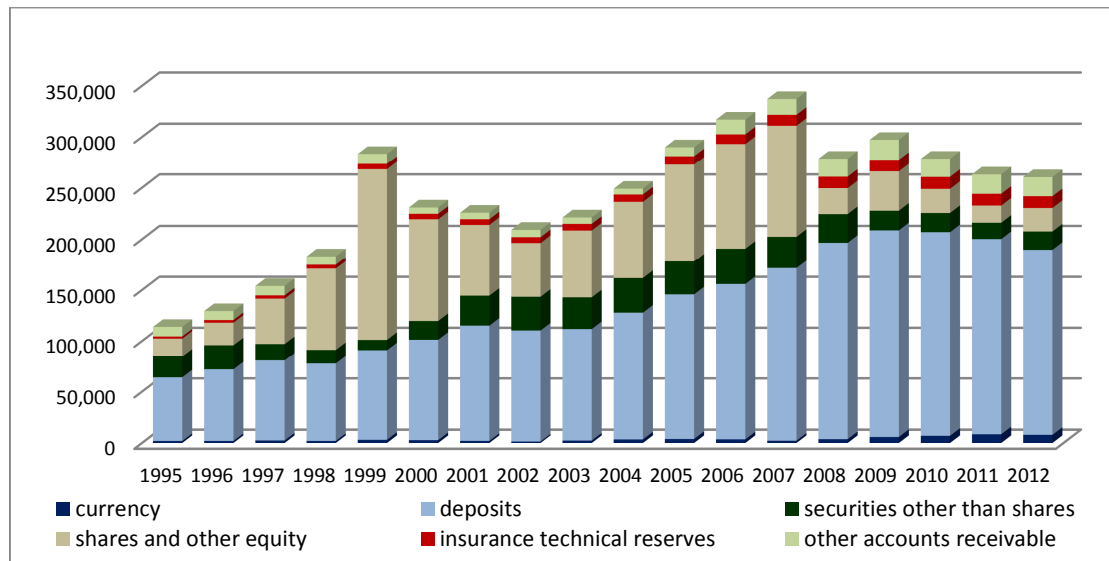
The analysis of households' financial assets is displayed in Figure 17, with all values representing stocks. The data clearly show a sharp rise in shares and other equity in the late 1990s (the period of rapid stock exchange inflation) both in absolute terms and as a percentage of households' total assets. Once the stock exchange bubble had burst, the stock of shares and other equity falls substantially (after 2001). Still, their allure and share remained, post-

bubble, at levels significantly higher in comparison to the mid 1990s, at least until the onset of the crisis in 2008-2010.

Once the global financial crisis began, stock and equity values shrink violently, falling from 108.6 billion in 2007 to only 22.7 billion in 2012. Securities other than shares follow a partly opposite pattern, in the sense that they are significantly reduced during the period of the stock market boom, but rise later on, presumably in an attempt by households to form a less risky asset portfolio. Their total stock reaches a maximum of 34.8 billion in 2006, from 20.6 in 1995 and a mere 10.2 in 1999, before declining to nearly half that value as a result of the crisis.

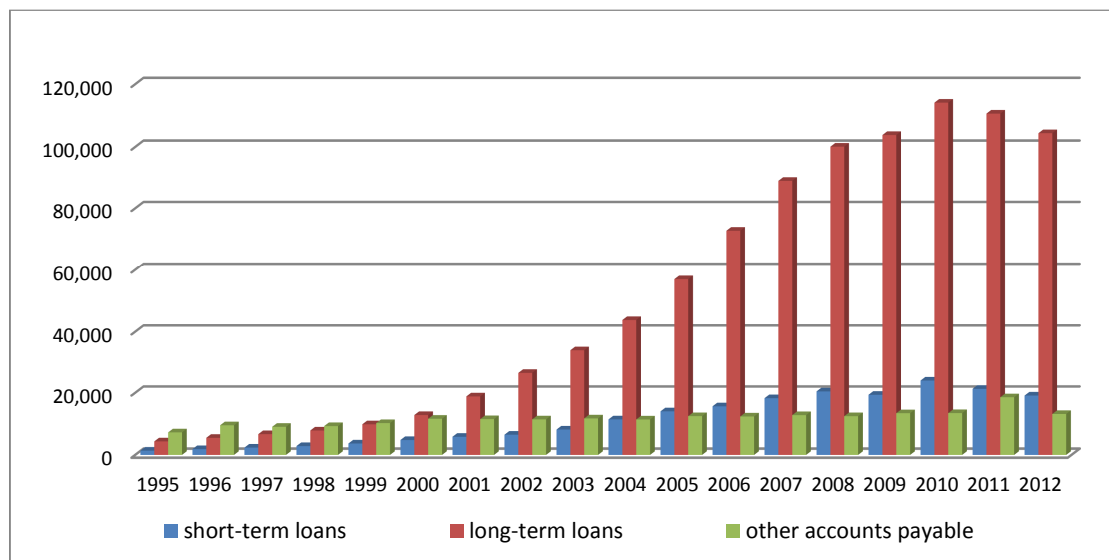
An interesting distinction that does not appear in the chart is the one between short-term and long-term securities, the former constituting the majority during 1995-1998 and the latter coming to represent almost the total stock of securities held by households and NPISH from 2000 onwards. The category of insurance technical reserves is the only one, besides deposits of course, that displays a clear upward path throughout the entire period, increasing almost fivefold – in absolute terms – between 1995 and 2009. As to the post-2008 crisis, its effect has been, up to this point, to prevent any further increases, without however reducing the total stock of these reserves.

Figure 17: Financial assets of households and NPISH (stocks – millions of €)



Source: Eurostat

Figure 18: Financial liabilities of households and NPISH (stocks – millions of €)



Source: Eurostat

The data concerning households' financial assets seem to resonate with the idea expressed in the beginning of this section, namely that the process of

financialization arrived rather late in Greece and did not have the time fully to unfold due to the financial crisis of 2008. The same conclusion can be drawn from the data presented in Figure 18, which displays the time-path of households' financial liabilities (expressed again in stocks) and their distribution between short-term loans, long-term loans and other accounts. Short-term loans increased, in absolute terms, more than seventeen times in the course of the period examined, rising from merely 1.4 billion in 1995 to 23.9 billion in 2010.

The rise in long-term loans has been even more dramatic, in both absolute and relative terms, since they increased no less than twenty-six times in the course of the same period, from 4.3 to 114.1 billion. From 2011 onwards stocks enter a downward path, implying negative flows of loans, which is understandable given the deep recession in the Greek economy and the capitalization problems of domestic banking institutions.

Finally, it should be mentioned that, despite the truly dramatic rise in households' loans over the period under consideration, the total value of household debt was, even before the adverse effect of the crisis, rather low as a share of GDP, at least in comparison to other developed nations where the process of financialization had been advancing for a much longer period of time.

Section II.4: Financialization and the current account

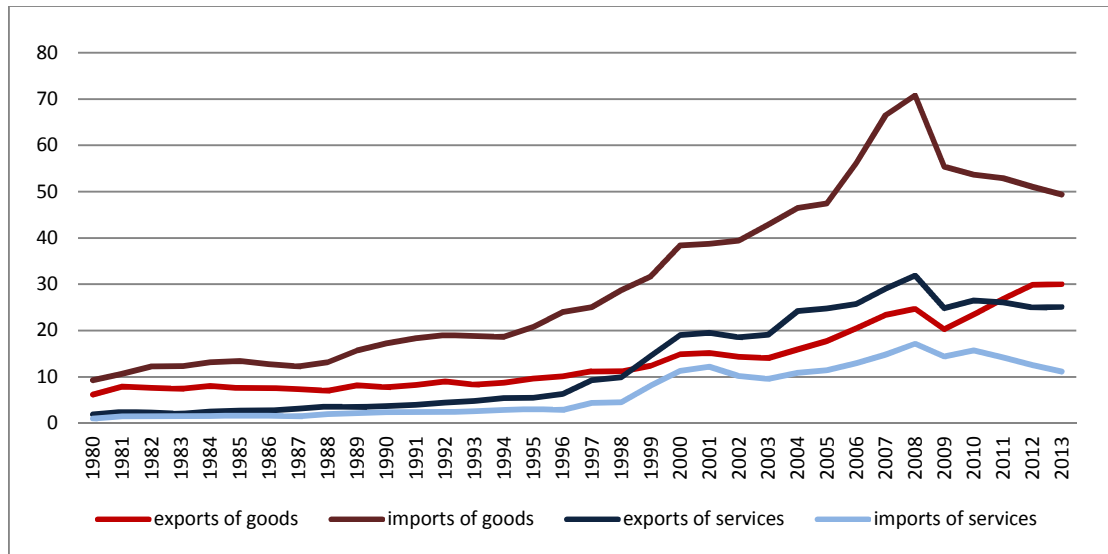
Financialization is intimately linked to the developments in a macro-economy's current account, as well as in the whole gamut of its international economic relationships. These links are forged by both the liberalization of trade flows, under floating exchange rates, and, primarily, the deregulation of international capital markets. As a result of "freer" trade, less competitive economies find it increasingly harder to mitigate their chronic imbalances

with the rest of the world. To boot, financial sector deregulation, in conjunction with technological developments that make it possible for huge sums of money to be transferred through different jurisdictions at the touch of a button, imply that persistent, and even growing, deficits in the current account can be maintained, hence facilitating the emergence of severe instabilities.

From the point of view of surplus nations, whose oligopolistic industries enjoy a comparative advantage in key export markets, this state of affairs has enhanced their current account surpluses and the deficits of their trading partners; especially of countries bound together by a fixed exchange rate, or, even worse, a common currency. Under these circumstances, it is theoretically possible, plausible even, that the process of financialization leads to greater regional and global imbalances, the result being a greater potential for financial instability that may cause economic crises. When such crises are triggered off, irrespectively of their immediate cause (e.g. whether they were caused by adverse movements in their underlying exchange rates, in the exhaustion of a country's foreign reserves, or in the running up of unsustainable external debt), they are next to impossible to contain without both short and long-term losses in social welfare.



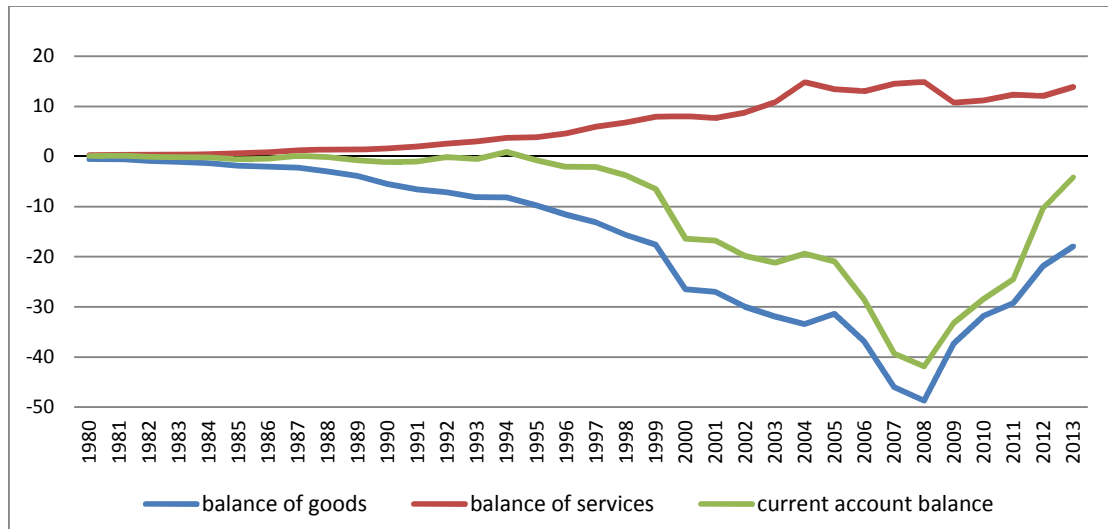
Figure 19: Trade flows in current prices (billions of €)



Source: AMECO

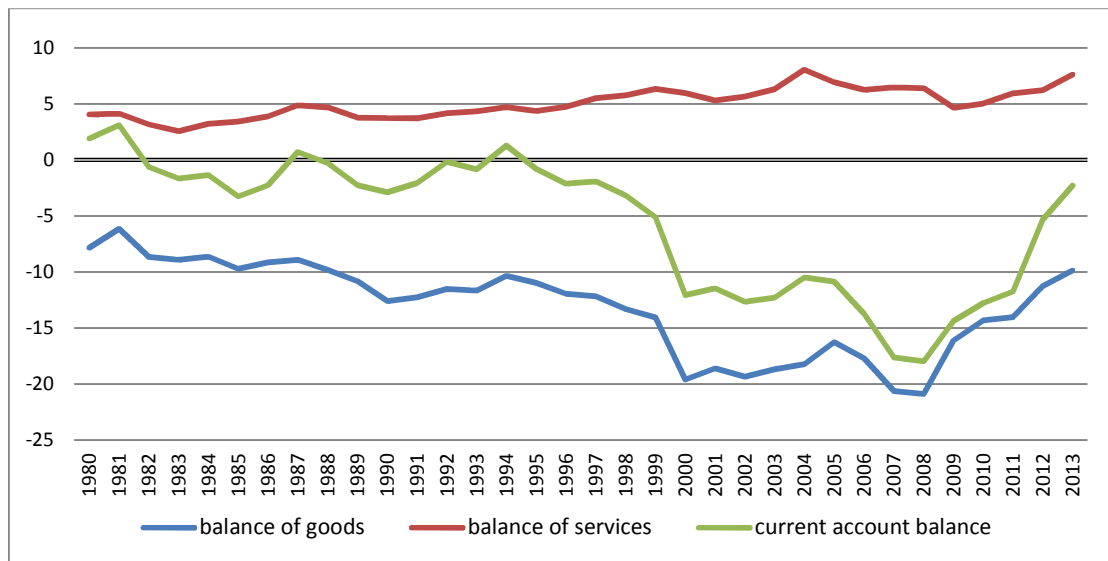
It could be argued that this aspect of financialization’s effects in the real economy may be much more relevant for the case of the Greek economy in comparison to the aspects examined in the previous subsections. The reason is that although the direct implications of financialization for the domestic economy came to Greece relatively late in the piece, financialization’s effect on the nation’s current account was large, and important. One reason for this was, of course, that other developed nations, whose economies were “usurped” by financialization in a way that does not apply to Greece, happen to constitute Greece’s most important trading partners. Therefore, while the problems and risks that financialization implies in the context of the domestic economy were relevant for Greece only to a relatively small extent, and only after the mid 1990s, the significant and growing imbalances in the current account (and the crises thereby engendered), which had such detrimental effect on Greece, would have been impossible without financialization’s global onslaught.

Figure 20: Trade balances of the Greek economy (billions of €)



Source: AMECO

Figure 21: Trade balances of the Greek economy (% of GDP)



Source: AMECO

The time-path of trade flows of the Greek economy over the last three decades is portrayed in Figure 19, while the ensuing imbalances are depicted in Figures 20 and 21, expressed both in nominal terms and as a percentage of GDP respectively. These figures clearly demonstrate the existence of a more

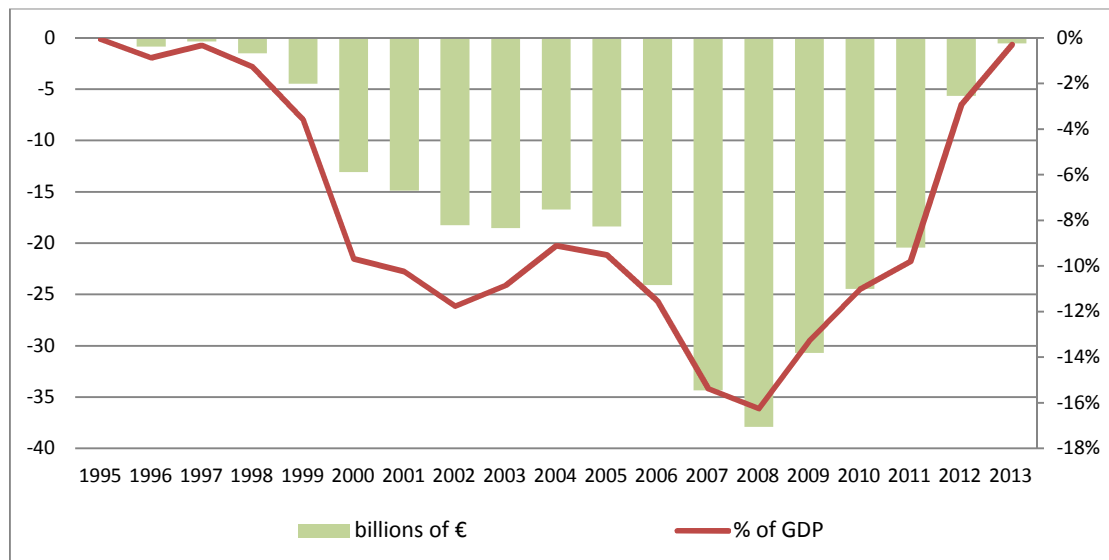
or less sustainable current account until the mid 1990s, exhibiting surpluses in the balance of services (mainly as a result of tourism and shipping) counterbalancing and in some years even overcoming the deficits in the balance of traded goods. Throughout the first half of the period under consideration, the current account deficit never surpassed 3.24% of GDP (1985), being usually lower than 2%. In the second half of the period, the current account deficit reached 3.2% of GDP in 1998 and 5.1% in the following year, rising precipitously to 12% (or 16.4 billion euros) in 2000, as the rapid increase of deficits in the balance of goods could no longer be restrained by the surpluses in the balance of services.

As far as the years of the crisis are concerned, the data show a tendency to return to the balanced current accounts of the 80s and early 90s through a rising surplus in the balance of services and, mainly, a declining deficit in the balance of goods. Moreover, both developments seem to depend primarily on the declining demand for imports, although it is true that the exports of goods did rise significantly during 2009-2012 (from 20.3 to 29.9 billion euros).

The balance of goods had been in deficit throughout the entire period that is examined, but the size of these deficits changed dramatically, from 7.8% in 1980 to 12.6% in 1990 and finally to an incredible 19.6% of GDP ten years later. How was this financed? Put simply, through capital flows from Northern Europe. Until 2010, when the demand for imports started to decline as a result of the Greek state's effective insolvency, and the deep recession that followed after the Greek state and banks lost access to international money markets, the goods deficit never fell below 16% of GDP. Indeed, there were instances when it rose above 20%, hence leading to a current account deficit persistently higher than 10% of GDP and, during 2007-2008, higher than 17%. The huge imbalances created over the years started to be restrained only after the onset of the crisis and as a result of the austere fiscal policy which killed off demand for imports thus reducing the current account deficit to

11.8% of GDP in 2011, to 5.3% in 2012 and to merely 2.3% in 2013 – its lower value since 1997.

Figure 22: Net financial position of the total economy [net lending (+) / net borrowing (-)]



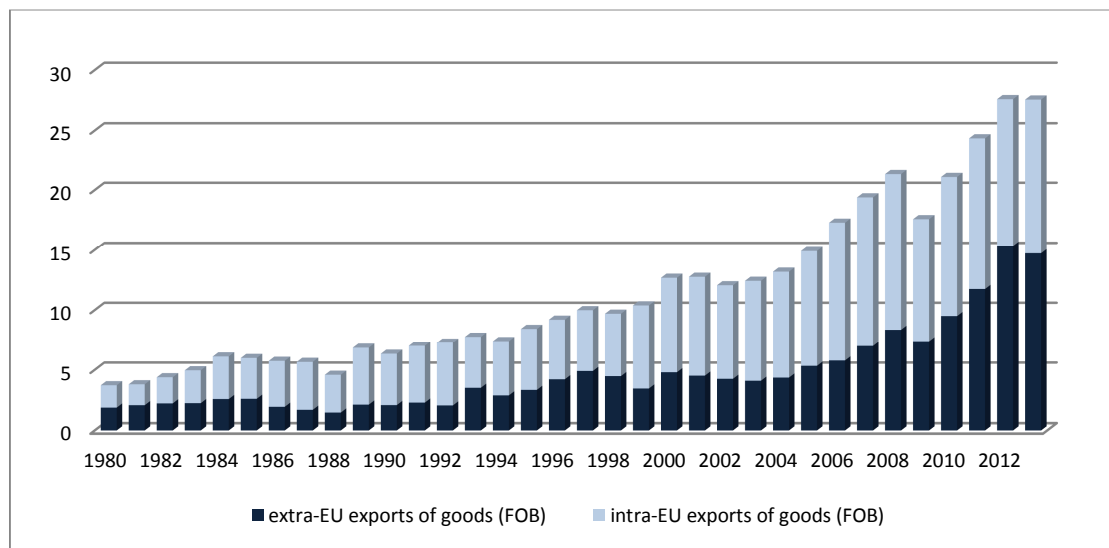
Source: AMECO

The immediate effect of these growing imbalances is plainly illustrated in Figure 22. Summing up the course of Greece’s current account deficit, the net financial position of the total economy was slightly negative in the beginning of this period, before starting to deteriorate at a rapid pace approximately in the late 1990s. In 2008, just prior to the onset of the global crisis that reversed the tendency of the current account to expand, net borrowing of the Greek economy reached a maximum of 37.9 billion €, or 16.3% of GDP. Of course, since the crisis hit, the fall in net borrowing has been equally dramatic, and indeed more abrupt, leading to a net borrowing value of merely 0.56 billion € in 2013, a magnitude representing only 0.3% of GDP.

It is of some interest to examine the time-path of the Greek economy’s trade flows by distinguishing between categories of trade partners, the most

obvious distinction being naturally the one between EU member states and third countries. The allocation of exports and imports of goods between these two categories is shown in Figures 23 and 24, where the distinction is made in terms of the former EU-15.

Figure 23: Exports of goods by category of trade partners (billions of €)



Source: AMECO

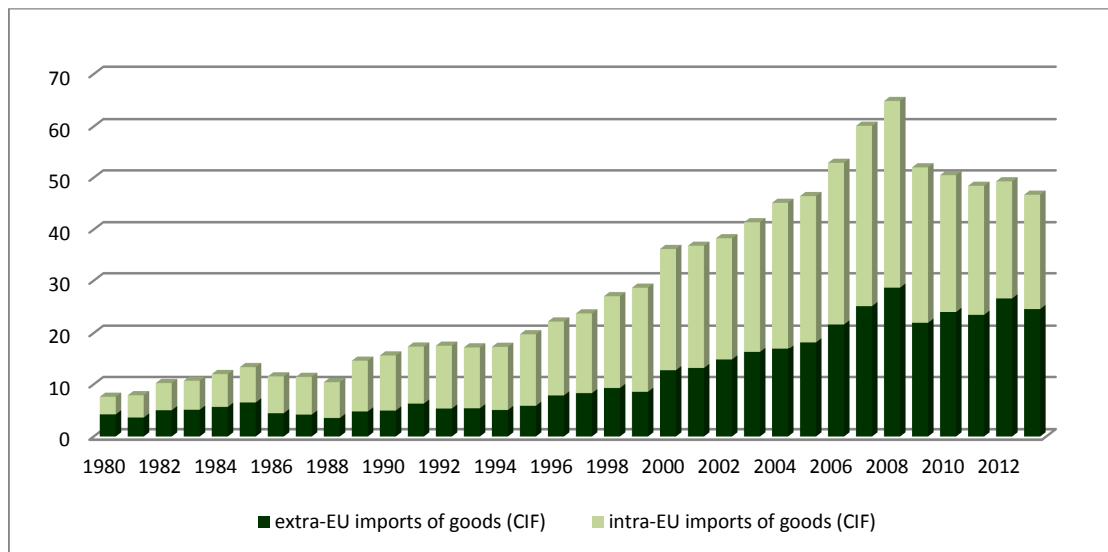
As can be seen in Figure 23, the countries of EU-15 constituted by far the most important destination of Greek exports before the crisis, the fraction of total exports being directed towards them being, with the exception of some years in the late 90s, roughly equal to 2/3. This situation seems to change quite sharply after 2009, the allocation of exports shifting in favour of extra – EU-15 destinations. It is not clear whether this shift is primarily due to the economic hardships in the rest of the EU or due to Greek corporations' attempt to expand to new markets in order to offset their losses in the domestic economy. Both factors have probably played some role, although the fact that exports to EU-15 member states have risen back to their pre-crisis



levels after 2009 suggests that the latter factor is more likely to be the dominant one.

As far as imports of goods are concerned, the picture that emerges from the data in Figure 24 is pretty similar. Imports of goods from EU-15 nations amounted to a total value of €36.2 billion in 2008, but only to €22.1 billion five years later, while the decline in imports originating from third countries, though significant (from €28.7 billion to €24.6 billion), is nowhere near as marked. Therefore, the allocation of imports by category of origin also shifted in favour of extra – EU-15 countries, a development that should probably be attributed to the higher, on average, cost of goods imported from EU-15 member states⁷.

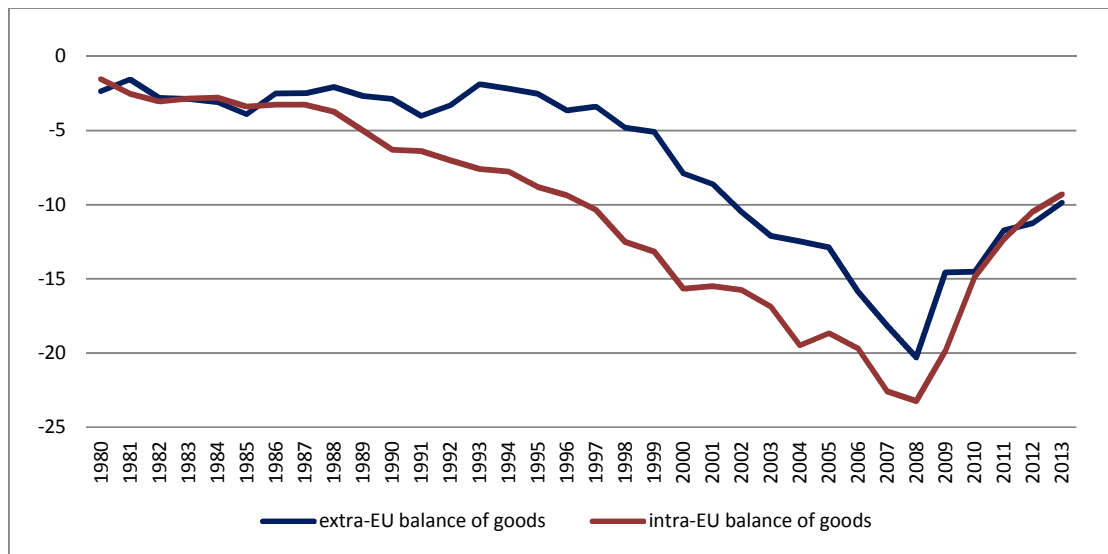
Figure 24: Imports of goods by category of trade partners (billions of €)



Source: AMECO

⁷ More precisely, to the fact that products imported from EU-15 member states are probably characterized by a greater participation of luxury goods, or goods that would be considered as luxurious in the context of a catastrophic depression. The drastic fall in the market for automobiles, which are, by and large, imported by western European nations, may provide with an apt example.

Figure 25: Balance of goods by category of trade partners (billions of €)



Source: AMECO

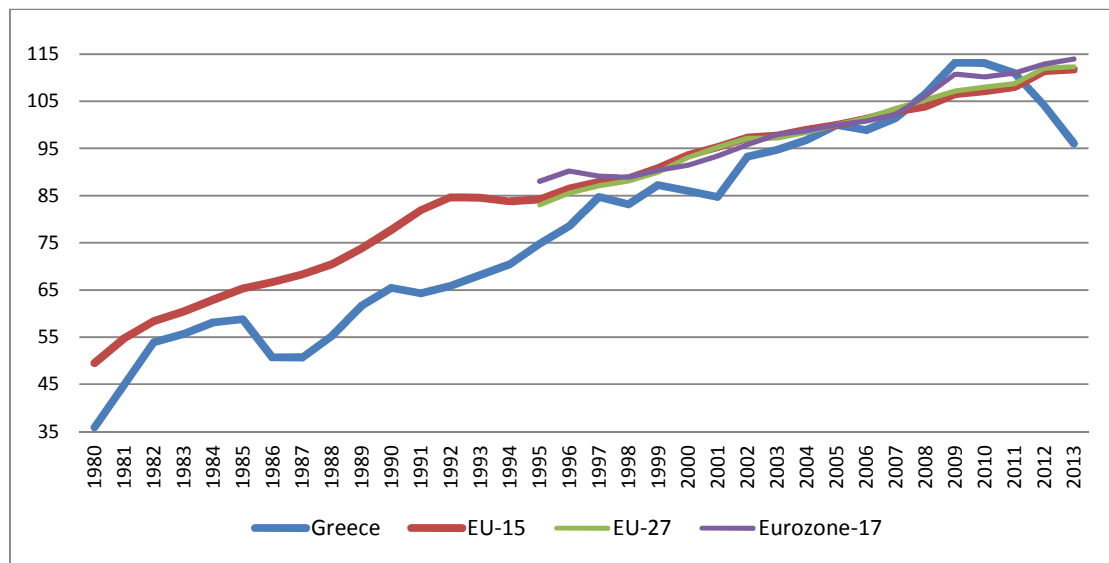
From a different point of view, Figure 25 shows the disaggregation of the eternal deficit in the Greek balance of goods between the two basic categories of trade partners. Both balances of goods exhibit the same behaviour, with deficits rising precipitously before the crisis and being increasingly restrained ever since, the difference between the two being rather a matter of degree. An important difference, nonetheless, lies in the fact that although Greece's deficit with respect to EU-15 member states had been moving along a rising path since the late 80s, the extra – EU-15 deficit was kept at relatively sustainable levels for another decade, before it also started to rise out of control in the last years prior to the country's participation in the monetary union.

The terrible external imbalances of the Greek economy during the period that preceded the crisis can be better understood through the data presented in Figures 26 & 27, displaying the evolution of nominal unit labour cost and of the real effective exchange rate of the Greek economy relative to the country's most important trade partners. The nominal unit labour cost (see Figure 26) is defined as the ratio of compensation per employee to real GDP per person employed, and is expressed in euros with 2005 serving as the basis year. The



respective data for EU-27 and for the 17 member states Eurozone are available only from 1995 onwards, but this does not seem to interfere with the easily discernible general pattern. The curve for the nominal unit labour cost in the Greek economy is below the respective curves for the EU and the Eurozone prior to the basis year, clearly indicating a higher rate of increase in this cost for Greece in comparison to its trade partners. This higher rate of change, shown in the chart as a steeper curve in the case of the Greek economy, continues to be the case until 2009. From then on, the effects of the crisis and of the economic policy that has been adopted have led to an obvious reversal and to a fast declining unit labour cost.

Figure 26: Evolution of nominal unit labour cost (in euros, 2005=100)

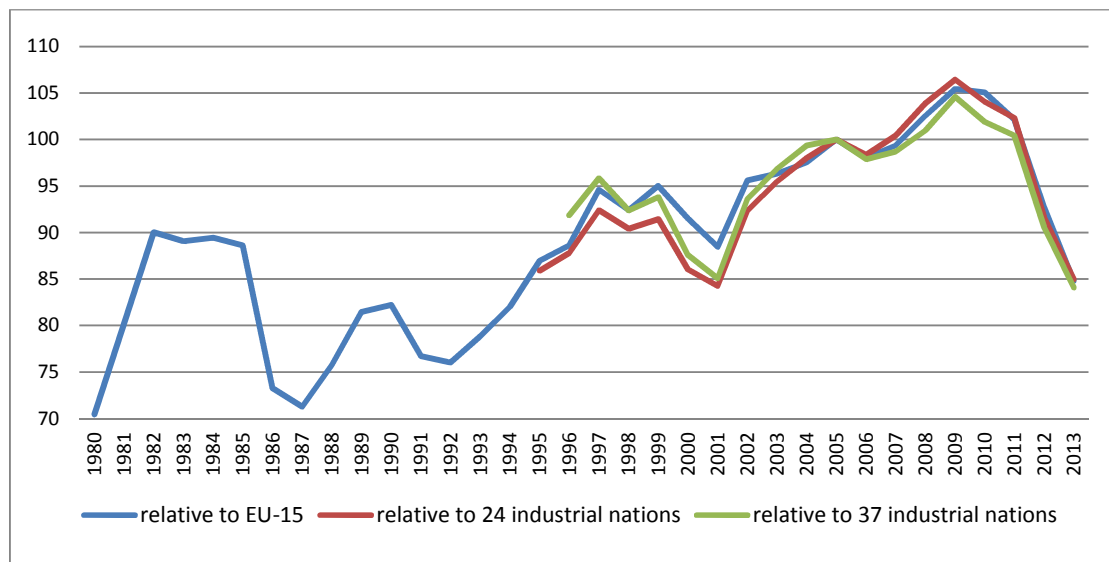


Source: AMECO

A similar story emerges from the observation of Greece's real effective exchange rates relative to most industrial nations (Figure 27). These exchange rates are calculated on the basis of unit labour costs, and are expressed using 2005 as a basis year. Effective exchange rates are also listed relative to agglomerations of 24 and 37 industrial nations, these

agglomerations consisting respectively in EU-15 plus 9 industrial nations and in EU-28 plus the same 9 nations⁸. After the fluctuations that the real exchange rate exhibits during the 1980s and the early 1990s, it follows a clear upward path, leading to a continuously reduced competitiveness of the Greek economy. This upward trend is restrained and temporarily reversed during the period 1998-2001, but reappears afterwards, severely undermining the economy's competitiveness throughout the period 2002-2009, before it is utterly reversed due to the crisis.

Figure 27: Evolution of real effective exchange rates of Greece (2005=100)



Source: AMECO

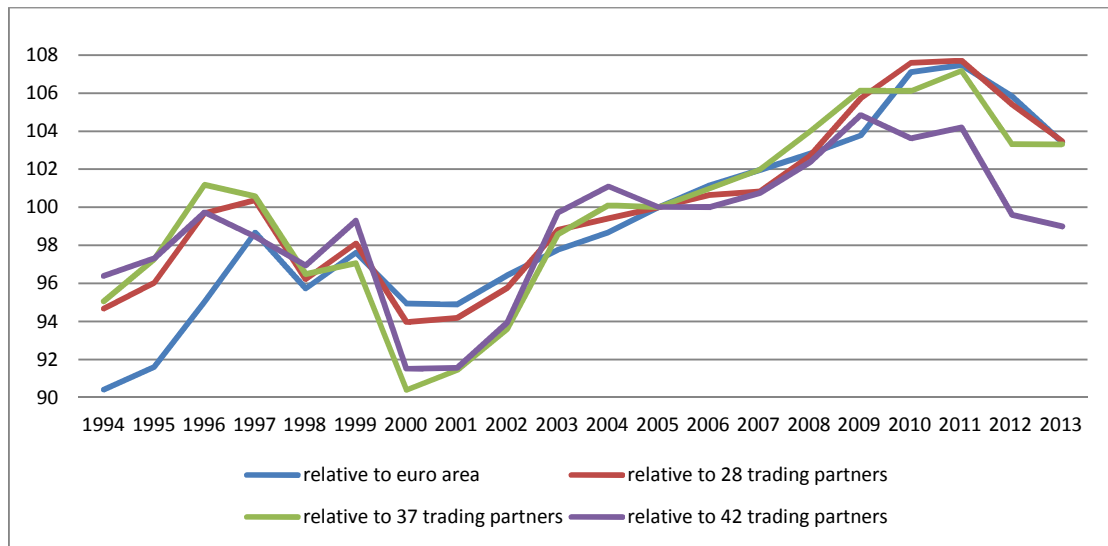
If, instead of the unit labour cost, Greek real effective rates are calculated on the basis of the Consumer Price Index (Figure 28), the general picture does not change much, although it is true that the most abrupt changes are somewhat smoothed. As in the previous figure, the declining competitiveness of the Greek economy after 2000 is obvious, while it cannot be asserted whether such a trend had actually begun in the early 90s, as the

⁸ These nations are USA, Canada, Mexico, Australia, New Zealand, Japan, Norway, Switzerland and Turkey.

data in Figure 27 seem to suggest, due to the unavailability of data prior to 1994. As far as the after-crisis period is concerned, a depreciation of the real exchange rate is also observed when CPI is used as a deflator, though it is far less dramatic than the depreciation observed when the data are deflated by unit labour cost. This result should probably be expected, in view of the fact that, while the crisis and the austerity policy adopted led to drastic reductions in labour income in both the public and the private sector, inflation remained positive, at non-negligible levels, throughout the first few years of the crisis. It was only after the deepening of the crisis and the complete collapse of domestic demand that the price level started to decline, implying that the potential of an export increase has hardly been as substantial as may be perceived from an inspection of Figure 27 alone⁹.

⁹ This phenomenon provides with a partial explanation of the inability of the internal devaluation policies that were followed after the crisis to lead to a substantial improvement of the Greek economy's export performance. However, this logic should not be overstressed. On the one hand, because this rather mediocre performance is to some extent the natural outcome of the structure of the Greek economy, i.e. of the prevalence of small and too small enterprises characterized by an insufficient division of labour in their interior, as well as by an almost total lack of access to international trade and distribution channels. On the other hand, because the CPI has actually been declining during the last two years, without leading to an acceleration of Greek exports. Some further comments on the causes of Greek exports' poor performance in relation to the policies that have been adopted since the outbreak of the crisis can be found in Section III.

Figure 28: Evolution of real effective exchange rates of Greece – deflated by CPI (2005=100)



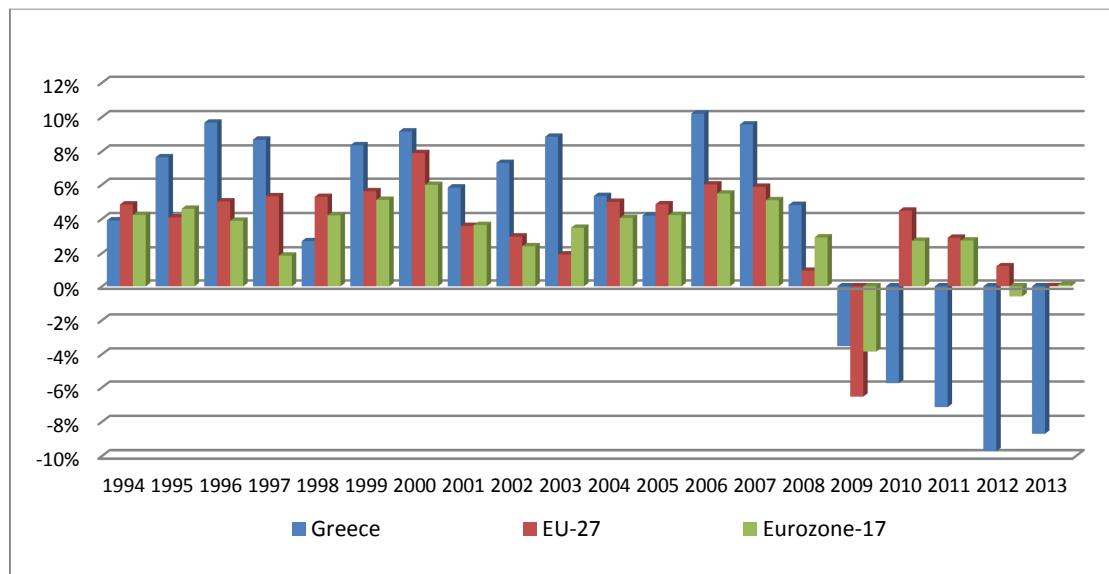
Source: Eurostat

We have already established that the experience of the Greek economy during the period in question can be categorized as one of domestic demand-led development. It would be interesting, in this context, to see what insights concerning the dynamics of domestic demand and the Greek current account can be had by looking at the respective dynamics of the country's main trade partners. Figure 29 provides another piece of the puzzle. It indicates that the growing imbalances in the country's trade relationships were formed by a combination of declining competitiveness and rapidly increasing domestic demand. The latter's proportional rate of change has been significantly greater in comparison to both EU-27 and the Eurozone-17 in nearly all years within the period 1995-2008. The average annual growth rate of domestic demand during the aforementioned period is equal to 7.3% for the Greek economy, but to 4.6% for EU-27 and to only 4.1% for the 17 member states of the euro area. Of course, the situation changed dramatically after 2009, with Greek domestic demand falling continuously at exceedingly high rates, while domestic demand in EU and in the Eurozone – after a sharp decline in 2009 –

exhibited positive growth rates during 2010-2011, before stagnating again due to the adoption of universal austerity during 2012-2013.

The data seem therefore to validate the conjecture expressed in the opening sentences of the section, namely that the in the field of international economic relationships, the effects of financialization outside of Greece's borders on the evolution of the Greek real economy have been considerably stronger and more influential, as compared with the effects of the much slower financialization happening within Greece. Moreover, the chronic lack of competitiveness and the ensuing deficits in the current account seem to provide with a more appealing explanation of the 2008 global crisis affected the Greek economy so severely. It is mainly this issue that the following section is going to delve into.

Figure 29: Proportional rate of change of domestic demand



Source: AMECO

Section III: Financialization and the economic and financial crises as the crisis of finance-dominated capitalism

The analysis presented in the previous section implies that the overall effect of financialization on the Greek real economy has been rather uneven. Although evidence of it can be found in several aspects of the real economy, this effect has in general been probably small in comparison to the excesses that financialization had led to in other European countries. Of course, as has already been argued, this has been so not because the Greek economy showed any signs of immunity to the process and outcomes of financialization, but simply because this process arrived in Greece with a lag in comparison to Western Europe, implying that it did not have the time – until the outbreak of the crisis – to fully unfold its potential.

However, the preceding analysis also shows that there was one aspect of the Greek economy, i.e. the one related to the economy's current account and its international relations in general, in the context of which the aforementioned comments on the small effect of financialization do not apply. To the extent therefore that some connection actually existed between financialization and the current Greek crisis, it must be sought at the field of Greece's international economic relations prior to the crisis, and particularly at the implications of the excessive imbalances in that field for the development and the vigor of the country's economy.

In this context, there are three important pieces making up the puzzle of the Greek economy's collapse in the aftermath of the global financial crisis. The first refers obviously to the way in which this global crisis was transmitted to Greece, including of course its transformation to a public debt crisis. The second, which is probably much more important for our purposes, refers to the pre-existing weaknesses of the Greek economy, as a result of which the latter proved totally incapable of withstanding the pressure exerted

by the crisis. And the third piece of the puzzle lies in the economic policies that were adopted in the context of the Greek adjustment programme and that led not only to a dramatic deterioration of the society's standard of living, but moreover failed to address the issue of the Greek State's insolvency. The three elements outlined above will be presented in turn, in the hope that the overall picture will clearly emerge from their synthesis.

Starting from the first element, the international financial crisis of 2008 was transmitted to the Greek economy through two main channels. The first operated naturally through the domestic banking system which was adversely affected by the ensuing credit crunch and the almost total collapse of interbank financing in the aftermath of the crisis, despite the fact that it was not particularly exposed to toxic financial assets. The second operated through the fiscal deficit of the general government which, being already high according to the Stability and Growth Pact's definitions, rose abruptly when economic growth slowed down as a result of both uncertainty and the deceleration of credit expansion.

Concerning the effect operating through the Greek banking system, the overwhelming credit crunch that ensued, the complete breakdown of interbank financing and the attempt of most banking institutions internationally to commence a process of deleveraging had a critical effect on the Greek economy through three different channels. First, it made public debt refinancing exceedingly difficult and expensive, and it would have probably done so, albeit to a smaller extent, even in the absence of a large fiscal deficit. Taking into consideration that the nation's public debt was well over 100% of GDP before the outbreak of the crisis, as well as that the Greek State had been enjoying, due to the country's participation in the monetary union, interest rates significantly lower than what its fiscal finances would in themselves justify, it should come as no surprise that the reduced liquidity in international capital markets and the increased risk aversion of the investors

led to substantial increases in the cost of debt refinancing. This increased cost reinforced already existing worries concerning the Greek State's ability to actually service its debt, hence leading to a vicious circle that brought the latter on a path of non-sustainability.

Secondly, even profitable Greek companies were cut off from the circuits of credit, a phenomenon that was going to be continued and reinforced in the following years. Thirdly, a similar pressure on consumer credit deprived the real economy of what has been its main engine of growth throughout the previous decade.

Concerning the nation's fiscal finances, their already precarious position was transformed to an outright derailment in 2009, when the recession automatically acted so as to expand the gap between tax revenues and public expenditure. Although it is true that the economy had been in recession since 2008, it was this derailment of the fiscal deficit of general government during the third and fourth quarters of 2009 that made abundantly clear the full implications of the crisis for the Greek economy. As a result of it, worries about the solvency of the Greek State, which had already emerged in the context of the international financial crisis and had already been reflected in a modest rise of Greek bonds' spreads in the secondary market, were both validated and reinforced, pushing the public debt further down its non-sustainable path.

This dramatic rise in the uncertainty over the country's solvency as the combined effect of both liquidity and fiscal problems, led, from the last quarter of 2009 onwards, to a rapid rise in the interest rates that the Greek State faced in the primary market, culminating eventually to the expulsion of Greece from international capital markets, while the initial freezing and subsequent reversal of the pre-crisis era capital inflows directed towards the real economy left the latter in stagnation and disarray. In addition to that, and as a natural consequence of the above, a mélange of expectations regarding

Greece's triple insolvency, i.e. referring to the State finances, to the domestic banking system and to the non-financial corporate sector, descended upon the country's macro-economy intent on causing economic havoc. As a result of this, recession turned quickly into the current state of Greece's depression.

Of course, the credit and liquidity crunch was a common phenomenon in Europe in 2009, and so was the rise in public deficits and the negative growth rates of real GDP. This, therefore, begs the question: Why was Greece affected so much more severely than other European states? The answer to that question must naturally be sought at the pre-existing weaknesses of the Greek economy. Although the roots of these inherent weaknesses have not yet been discussed, their straightforward outcome was that Greece constituted, at the time when the crisis was triggered off, the only Eurozone member-state that had (a) an inordinate debt to GDP ratio, (b) an outsized fiscal deficit, and (c) a record current account deficit. None of the other EU member-states faced this perfect storm. Therefore, the question concerning Greece's excessive vulnerability to the 2008 international crisis must be reduced to the question of the causes behind these imbalances.

The answer to that question can be found in the financial inflows in the domestic economy prior to the crisis, and specifically to the exact nature, causes and consequences of these inflows. For purposes of demonstration, the latter can be divided into two categories, referring to the ones directed towards the financing of the Greek current account deficit and those that were translated to the gradual indebtedness of the Greek household sector. However, these categories are but different aspects of the same phenomenon, although, as has already been shown, the former aspect proceeded to a much greater extent than the latter. And the roots of this phenomenon are to be traced in the country's participation in the monetary union, which constituted essentially the vehicle through which financialization arrived, or at least

entered a new and more advanced phase, in the context of the Greek economy.

This was certainly the case with respect to the trade imbalances that the Greek economy exhibited, since the latter constituted initially the effect of the country's participation in a single market dominated by chronically surplus-generating nations that were typified by oligopolistic, capital intensive industries. The surpluses of the latter were always going to flood back to deficit nations like Greece, Portugal etc. causing bubbles whose bursting would, on the one hand, restrain the balance of payments deficit while, on the other, wreck, at least in the medium-term, whatever productive capacities the deficit nations possessed. Hence, while Greece's participation in the eurozone led, as we have already seen, to the derailment of the current account deficit, it also provided with the necessary capital inflows that were needed in order for this deficit to be financed.

A very important aspect of the Greek economy's development in the years preceding the crisis was that these inflows did not take the form of foreign direct investment, but rather the form of – both private and public – debt, mainly due to the peripheral nature of the Greek economy and the lack of a solid, industrial productive base, in comparison at least to Western European nations. Given the relatively low interest rates that the monetary union ensured, these inflows led to the increased indebtedness of the private sector and sustained the high deficits of the public sector, while they also led to the easy and cheap refinancing of the public debt in international capital markets.

This process constituted however a vicious cycle in terms of the economy's vulnerability. Despite leading to growth and prosperity, fueled by the constant rise of domestic demand, it also implied a rising current account deficit, both due to the rise in imports demanded by indebted households and due to the inflationary effects of these inflows with respect to both wages and prices. Thus, the very process through which the economy was growing led at

the same time to a continuous deterioration of its net financial position and to the rapid accumulation of fiscal deficits. Moreover, it continuously undermined the competitiveness of the Greek economy, thus making it even more difficult for it to escape this vicious cycle. As a result, when the international financial crisis broke out, the country's position was already precarious due to the large twin deficits and the excessive debt to GDP ratio.

In this context, financialization effectively helped “fund” the Greek economy's Achilles' heel, and thus make it more vulnerable to the “arrow” of the 2008 crisis. As has already been shown through the preceding analysis of the relevant data, the process of financialization had a really serious impact on the economy in the fields of internal equity markets (especially during 1998-2000, as Greece was entering the Eurozone), public debt, and the current account. It is these drastic imbalances in the balance of payments that grew inexorably after the country's participation in the monetary union that constitute the underlying cause for the catastrophic situation in which Greek fiscal finances find themselves to this day.

A rather important question with respect to the argument outlined above concerns the reasons why capital flows into Greece were translated primarily to public rather than to private debt, whereas in countries like Spain and Ireland they were channeled into private, rather than public, debt. This fascinating question probably lies outside the scope of the present study, as it pertains to the political economics of different Eurozone member-states. What is important is that given the relatively moderate – despite its clear rising tendencies – indebtedness of the household sector, and the almost consistently positive financial balances of the corporate sector, the external debt-financing of the current account deficits led inescapably to higher net borrowing requirements for the general government. In the unofficial social contract that seemed to prevail in pre-crisis Greece, the state had essentially assumed the responsibility to keep economic growth going through the



accumulation of fiscal deficits, since the competitiveness of the Greek economy (which deteriorated further due to the inflationary effects of the money flows that were directed towards Greece) was too low to open up different possibilities.

The traces of the process described in the previous paragraph can easily be seen in the fact that Greece experienced a rapid economic growth period for more than a decade without managing to reduce its already high public debt and without even being able to contain the deficit within the boundaries set by the Stability and Growth Pact. With the share of private investment in GDP being consistently and significantly lower than its maximum values of the early 1980s, it should come as no surprise that, when the crisis finally broke out, fiscal finances were already on the verge of non-sustainability. One year of recession, under the circumstance, was enough to lead to a total derailment of the government's annual budget.

Finally, no account of the causes of the economic crisis in Greece can be complete without recognizing the adverse role of the economic policies that were followed, as a result of which a debt crisis was transformed to an unprecedented, at least after the Second World War, depression. A depression, moreover, that locked Greece into a debt-deflationary cycle pushing net investment into negative levels, and thus cementing Greece's long, multi-year, winter of discontent.

When Greece was effectively expelled from the capital markets and had to request official financial assistance in order to avoid a catastrophic default, the solution that was decided consisted in a combination of loans, through which the country's debt obligations would be serviced and its fiscal deficits in the course of the adjustment programme would be financed, and a consistent policy of internal devaluation meant at eliminating both the fiscal and the current account deficit. The former was to be eliminated through both austerity and higher taxation, while the latter through the combination of

austerity and a series of structural reforms that would allegedly boost the nation's competitiveness.

Although a list of the measures adopted would be too vast to be included here, and certainly beyond the scope of this essay, some brief comments on the main directions of the adopted policy should be made. Concerning public expenditure, whose ratio to GDP was comparable to the EU average before the crisis, the policies that were followed were focused on the reduction of wages in the public sector, pensions and government expenditures on health and education. Concerning taxation, they focused on increases in value added tax and other indirect taxes, on the reform of the income tax scheme leading to the adoption of higher rates, the drastic decline of the level of non-taxable income and the almost total elimination of tax allowances and deductions, as well as to the introduction of new forms of taxation of an allegedly temporary nature on both households and corporations. Finally, as far as structural reforms are concerned, they were centered around the opening up of formerly regulated professions, on the reform of labour relations leading to the substantial decline of wages in the private sector, on the reform of the social insurance legislative framework, and on an extended privatization policy which has failed, nevertheless, to arouse much interest.

These policies led, quite naturally, to a deep recession, implying not only the necessity of further austerity measures in order for the Greek State to achieve the rather optimistic deficit reduction targets that had been set, but also the continuous implementation of several different forms of debt restructuring meant to ensure the public debt's sustainability, or rather to contain to the extent possible its obviously non-sustainable development. These forms of restructuring ranged from the rather innocuous, like interest rate reductions in the official sector's loans or the introduction of grace periods for their repayment, to the really drastic ones that implied an actual diminution in the nominal value of public debt securities, like the enforced

scheme of debt buyback and, mainly, the PSI (Private Sector Involvement) which led to a higher than 50% diminution of the face value of the greatest fraction of Greek debt that was still in the hands of the private sector.

Hence, not only was the default finally not avoided, but the adjustment programme that Greece was obliged to follow as part of the agreement with the European Central Bank, the European Union and the International Monetary Fund achieved deficit reduction only by bringing about a triple insolvency (of the state, the banks and the non-financial business sector), culminating into deep recession, indeed a depression, from which the Greek economy has still not managed to rise. The debt to GDP ratio which is currently over 170% despite the aforementioned restructurings, the huge financing problems faced by, even otherwise competitive, Greek corporations and the excessive cost of the banking sector recapitalization scheme which is estimated at just below €40 billion, constitute rather clear indications of this triple insolvency. While the dramatic rise of the unemployment rate and its stabilization at levels exceeding a quarter of the Greek labour force plainly shows the scale of the depression and the scope of its consequences.

And although the current account deficit has fallen to seemingly sustainable levels, its eradication is a purely Pyrrhic victory. As the structure of the Greek economy remained untouched during Greece's troubled times, any future pick up in aggregate demand will restore, together with GDP, the current account deficit. Despite the improvement of the country's competitiveness, in terms of unit labour costs, the continuing credit crunch facing potentially efficient and productive firms means that structural productivity will remain in the doldrums throughout the Greek economy, with the possible exception of tourism. For example, one of the main reasons behind Greece's disappointing export performance is that exporters face: (a) lack of credit within Greece, (b) demands for cash-only payments for imported raw materials (as their foreign suppliers do not trust the bankrupted Greek

banks), and (c) a state that, due to its unsustainable debt to the troika, never misses an opportunity to impose punitive taxes on any business whose cash flow is not zero.

Judging therefore from the results to which the implementation of the adjustment programme has led, it can be concluded that the absence of any corrective mechanisms within Europe's monetary union left Greece with a stark choice between an early default and the adoption of an "extend and pretend" strategy funded by the infamous troika of the official lenders. The "official version", according to which Greece was meant to rebound on the basis of internal devaluation, had always been a red herring, in the sense that such a form of devaluation, even if implemented, offers no possibility of avoiding serial defaults on external, private and public, debts (which, unlike prices and wages, stubbornly refuse to shrink during phases of internal devaluation). What actually happened, on the contrary, was that the Greek economy was forced to enter a debt-deflationary cycle, whereby efforts towards the attainment of debt sustainability are continuously frustrated by the considerable GDP reductions caused by these very efforts. And while these deflationary tendencies did not appear, with respect to the price level at least, in the early stages of the implementation of the adjustment programme due to the increased indirect taxation and the effect of prices of imported raw materials, their presence has started to be felt during the last two years, both in the real economy and in the CPI statistics.

Section IV: Summary and conclusions

In the context of the present essay, an attempt has been made to account for the influence that financialization exerted upon the Greek economy throughout the last decades and to inquire into the links, if any, between this process and the current financial and economic crisis both in general and in connection to the extremely harsh form that this crisis has taken in the case of Greece. This task has been complicated by the fact that the lack of data availability over long-term horizons has made any attempt towards econometric estimations of the several hypotheses that have been proposed in the literature next to impossible.

Keeping in mind this important qualification, the results that have been presented seem to suggest that the overall effect of globalization on the real economy of Greece, though certainly existent, should be considered rather small, especially when compared to the historical experience of most western European nations. However, there is one field, i.e. the evolution of the Greek current account and of international economic relations in general, in which these effects were considerable, to the extent that it would not be an exaggeration to say that they actually determined, to a great degree at least, both the course of the Greek economy prior to the recent crisis and the immense vulnerability of this economy when the crisis finally hit.

To sum up the argument of the previous sections, Greece did not experience financialization like other developed countries did. Greece experienced financialization via the European Monetary Union that it chose to enter into back in 2000. Thus a chronically deficit nation, with a weak and fragile state apparatus, entered into a monetary union that removed Greece's internal shock absorbers while guaranteeing that the impending shock, when it hit, would be impossible for the meek Greek economy to sustain. At that time, as Greece's macro-economy began to unravel, the same wizards who



had designed the instruments of private sector financialization in London, Frankfurt and Wall Street, were gainfully employed by the EU to design the public financial instruments (e.g. the structure of the official sector's loans to Greece, the European Financial Stability Facility etc.) that would allow the Greek government to "extend and pretend"; to claim that default was avoided through gigantic loans to a deeply insolvent state on condition of fiscal austerity that reduced by one third the nominal national income from which old and new loans would have to be repaid.

Is it any wonder that financialization, in the context of European Monetary Union, brought about a very (post)modern Greek tragedy?

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialization; how has financialization impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialization and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialization? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?

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