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**Article**

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## **The Greek Non-Paradigm of Economic and Business Development, and Comparisons with South Korea**

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### **Abstract**

A series of wrong policies since the 1980s transformed the Greek economy into a problematic one and almost ready to collapse; for example, artificial increases in employment in nonproductive public services entailing low productivity; increasing wages above those guaranteed by productivity increases; an increasing budget deficit which was used primarily for consumption; and joining the Euro zone too early. Some of the consequences were the relative de-industrialization of the country; a huge public debt and the consequential international indebtedness; and the impossibility to recover quickly after the recent global financial crisis. Some stylized modeling facts about all these issues facilitate our understanding of both the Greek and Korean economies. Furthermore, the parallel examination of the Korean economy during the same period, whenever necessary and possible, contrasts this country's correct choice of economic policies with those of Greece: thus, what Korea did, Greece did not and vice versa.

**JEL Classification:** O11; O23; O24; O43; O52; H50; H62.

**Key Words:** productivity; wages; Euro area; stagflation; exports; politics and economics; Greece; South Korea.

### **1. Introduction**

The main object of this study is the Greek economy and business but some comparisons with Korea will be made to contrast the Greek case. Thus we endeavor to primarily determine the “cause and effect” of all events in the Greek economy that led to the disaster of 2009-2013 period, wrongly called the “financial crisis” of 2008/09. We will provide evidence that this “financial crisis” is the consequence of at least 35 years of wrong economic policies centered on the excessive borrowing by the Greek State to feed its public sector. The external debt started increasing since 1981, from about 30% then to about 180% today. The continuous borrowing of the Greek government (hence large deficits since 1981) for consumption (and not investment)

also meant high government expenditure. This model of Greek economy could continue till the moment when the government was not able to borrow anymore in the free markets. This end to the easy life would be harmless if first, the end of borrowing could have been replaced by something “magical” that could repay the lenders and at the same time support the real economy; and second, the real economy had not been harmed by the easy life during the long period of heavy borrowing to feed large government deficits. These two conditions obviously did not exist and could not exist because fundamental economic laws were ignored. We therefore must examine several issues and provide answers to the following questions: first, why did the increasing government borrowing take place? Second, which fundamental economic laws were ignored by the governments?

The public borrowing started increasing for political reasons: the results of elections were based on “clientele” relations between politicians and voters. The two main parties were promising jobs in the public sector and higher wages before each election; generally they kept their promises. This led to an increasingly fatter public sector which in turn necessitated more borrowing. An increasing larger public sector and higher wages and benefits than the private sector led to an increasing state oriented economy with stronger worker unions and a private sector that largely depended on the public sector.

The consequences of all these gradual developments from 1981 (and even from the mid-1970s as we shall see below) to 2008 were disastrous for the Greek economy. Fundamental economic laws were ignored and very often led to policies completely contrary to these laws. First, we know that the public sector attracted an increasing number of well paid employees, well above their marginal product because of the monopsonistic nature of the public sector and the monopolistic nature of the worker unions. Most citizens had as their sole target to get a job in the Greek public service, thus finding the easy way to be unproductive. This led to the diminishing role of the industrial and agricultural sectors thus inflating and exacerbating the service sector of the economy. At the same time, increasingly higher wages led to higher wages in all sectors of the economy, thus making the industrial sector less and less competitive. This also meant decreasing labor productivity. All this in turn led to higher and higher imports of goods to the point that Greece became the exceptional case whereby imports of goods were three times higher than exports.

Second, governments (and parties) of any political color did not have any planned policy to support technology, entrepreneurship, human capital, and innovations (see e.g. Yanitsis, 2008). Third, all governments supported and promoted monopolies and oligarchies which in turn led to inflationary pressures, inefficiencies, and corruption. Fourth, governments did not have any planning process to determine priorities and control the execution of the planned policies. Fifth, there were no long term economic policies to opt for joining the European Union, and eventually joining the common currency of Euro. In this case the consequences of the “optimum currency area” model were not taken into account.

On the other hand, an examination of the Korean economy shows that Korea followed a very different path: stable governments which through rigorous 5-year plans and their precise execution promoted the production of many products in almost all areas with the ultimate aim to export as much as possible. Korea avoided problems of stagflation and low growth by increasing labor productivity, maintaining a fair distribution of income, keeping public finance in strict control, and promoting education and technology. In other words, in briefly comparing Korea and Greece, Korea did all these nice things that Greece did not and vice versa.

In the next section, we will introduce a simple model of stylized facts that clearly shows the consequences of the Greek policies and those of Korea. Then in section 3, we will describe the main issues and show some graphs that can elucidate our study appropriately, mainly in the case of Greece and some in Korea. In section 4 we will discuss the policies followed in Greece. In section 5, we briefly compare<sup>1</sup> Greece and Korea. Finally, section 6 concludes.

## 2. Stylized modeling facts on labor productivity and inflation

We will base several arguments of our discussion on the importance of labor productivity<sup>2</sup> in both the Greek and Korean economies as Figure 1 (see next section) shows significant differences between these two countries. Consequently, in this section, we develop a simple way of reasoning or stylized facts (model) which can lead us to, for example, how stagflation appeared in Greece during the 1980s, and so on. Let us denote domestic production (in volume terms, as all other variables) as  $Y_t$ , consumption as  $C_t$ , and employment as  $L_t$ . Then, if imports  $M_t$  and exports  $X_t$  are zero initially (or if the difference  $M_t - X_t$  remains a constant proportion of production and preferably close to zero), then we have  $Y_t = C_t$  if we include savings (as a constant proportion of production) in consumption. Initially, we also assume that population grows at exactly the rate of labor force replacement. In addition, the government's role in the economy is absent or minimum and constant. This situation is like a steady state of long term equilibrium. The annual growth rate of both production and consumption will solely depend on technological growth if also savings is transformed into investment. Note that technology, denoted by  $A_t$  includes the stock of capital, organization of labor, institutions, etc; it also denotes productivity as we will see below. This situation is approximately similar to the Greek economy during the period of 1961 to 1980; a real GDP annual growth rate of about 8% took place during 1961 to 1970 and a real GDP annual growth rate of about 4% took place during 1971 to 1980 (which would have been much higher if the oil price hikes did not occur in 1974 and 1980); employment remained approximately constant from 1961 to 1980; the difference  $M_t - X_t$  remained a constant proportion of production at approximately 10% of GDP; the government's deficit was almost constant at between 0% and 2% of GDP (the graphs in the next section show all this); and so on.

Let us next disturb this equilibrium. One way (first case) to do so is to increase the population or labor force in a particular year and assume that the substantially extra labor supply is immediately absorbed as employment, for example in the governmental services sector. What is the consequence of this extra employment of  $L_t$  in the economy? We will have at time  $t'$  and  $t''$ :

$$\text{At } t': \quad L_t A_t = Y_t$$

$$\text{At } t'': \quad L_{t''} A_{t''} = Y_{t''}$$

Although  $Y_{t''} > Y_t$ ,  $Y_{t''}$  is not large enough to compensate for the decrease in productivity; thus we have:

$$Y_{t''} / L_{t''} = A_{t''} < Y_t / L_t = A_t \tag{1}$$

<sup>1</sup> A full comparison between these two countries is out of scope of this paper.

<sup>2</sup> The link between productivity, inflation, stagflation, and so on was on the research agenda since the 1980s, see for example the classical paper by Olson (1982); for a more recent treatment of this link see Berthold and Grundler (2012).

This decrease in (labor) productivity is mainly due to the following combination of factors: the extra and substantial labor is employed in the much less productive governmental services sector, and the increase in capital stock which is primarily used in manufacturing and construction is not enough to compensate for the increase in labor; this means that the economy becomes more labor intensive, that is the ratio of labor over capital increases.

Let us now introduce the overall price level  $P_t$ , and the compensation of factors of production all denoted as  $W_t$  (called wages for simplicity; however, this includes profits, rents, etc). Then  $Y_t P_t = W_t$ , which is the money expression of the volume of  $Y_t$ . We will have the following identities:

$$\text{At } t': Y_{t'} / L_{t'} = A_{t'}, \text{ hence } Y_{t'} P_{t'} / L_{t'} = A_{t'} P_{t'} = W_{t'} / L_{t'} = w_{t'}^u \quad (2)$$

$$\text{At } t'': Y_{t''} / L_{t''} = A_{t''}, \text{ hence } Y_{t''} P_{t''} / L_{t''} = A_{t''} P_{t''} = W_{t''} / L_{t''} = w_{t''}^u \quad (3)$$

where  $w_{t'}^u$  is the unit (per person employed) compensation of the economy.

Combining (1), (2), and (3) we have  $w_{t'}^u / P_{t'} > w_{t''}^u / P_{t''}$ , which can surely lead us to the two alternatives:

- i) If  $w_{t''}^u < w_{t'}^u$ , then there is no inflation (especially if this inequality is large enough)
- ii) If  $w_{t''}^u = w_{t'}^u$ , or even worse if  $w_{t''}^u > w_{t'}^u$ , then there is inflation

The second case which leads to inflation is very common in many economies and it is due to the well-known rigidity of wages (and other types of compensation) to reduce when needed. This is also the case in Greece of the period 1981 to at least 1990 when large increases in the labor force were absorbed by the governmental services sector and thus labor productivity did not grow at all (this will be shown in the next section). The short and medium term consequences with such an inflationary pressure on the economy might be multifold. First, the labor force will soon be disappointed to see its real income diminishing because of inflation if its compensation is not enough to compensate for such inflation. In addition, within the labor force, some will be better off and some worse off, depending on many other issues. Second, higher prices will soon mean higher interest rates (i) charged by the banking system. Third, these higher interest rates will soon discourage many businesses from not reducing their investing efforts (I). Fourth, slowing down investment in new capital and technologies will slow down production. Fifth, the latter will soon increase unemployment (U). Then overall we have the following chain of reactions from time  $t$  to say  $t+2$ : labor productivity (A) decreases causing prices (P) to rise, which in turn drive interest rates (i) up; the latter cause investment (I) to reduce or decelerate, which drive production (Y) down (or decelerating) and unemployment (U) up.

This chain of speedy reactions in the economy constitutes a well-known phenomenon in economics, that is, stagflation. Note that in this chain of reactions, production may go down for two reasons simultaneously: because of increased prices, and because of increased interest rates.

In a longer term set up, more consequences might appear in the economy. If all or most of labor force increases are absorbed by the less productive governmental services sector, then the economy will become a services economy sooner than (as it usually happens) when the manufacturing sector has become initially very strong. Then the government sector will grow into the strongest sector of the society conferring to its members a substantial power both political and economic. Eventually,

such a strong state oriented economy will be consumption oriented and since the manufacturing sector did not have the chance to become strong, consumption will mainly be satisfied through imports.

Let us examine now the second case whereby the government through budget deficits increases government expenditures (for example through increased welfare services, wages of public servants, etc) at time  $t'$ . Then we may have  $Y_{t'}P_{t'} = W_{t'}$  and  $Y_{t''}P_{t''} = W_{t''}$  and since we have increased compensation in the economy through a government's decision, then  $W_{t''} > W_{t'}$ , hence we also require  $Y_{t''}P_{t''} > Y_{t'}P_{t'}$ .

At this point we must introduce the concept of multiplier. Since  $W_{t''} > W_{t'}$ , then we have an injection of money in the economy of which a large part can be translated into demand for goods and services. This should generate through the multiplier mechanism an increase in local production and also an increase in imports (ceteris paribus, e.g. no change in tax structure, etc). If this increase in local production  $Y_{t'}$  (let us for now ignore imports) takes place all at  $t''$ , then we would have  $Y_{t''} > Y_{t'}$  and hence most probably no inflation at all would be possible, thus  $P_{t''} = P_{t'}$  (even if some inflation would have occurred our arguments and conclusions will not change as we will see further below). However, usually the multiplier effects take time to take place (especially if the economy is not fully or appropriately equipped to quickly respond to increased demand). The consequence of this delay in local production response to increased demand is obviously inflation and most probably more imports.

Then this second case is similar to the first case above whereby the initial situation (equilibrium) was disturbed by extra employment (through a government's decision again). Therefore, we have the same overall consequences as in the first case described, hence stagflation.

In addition we have an additional problem here; as there is pressure on inflation, there is also pressure on the rates of interest (as before) but in addition this time increased interest rates will greatly negate the multiplier effects (see for example Schneider, 1962, p. 219). We also should note as in Schneider (1962) that the rate of interest will increase in the case of the government financing its deficits through borrowing on the open market (as in Greece); whereas if the financing takes place through borrowing from the central bank, the interest rate might decrease; nonetheless in this latter case, because of inflationary pressure in the economy as just described, interest rates will rather increase too to lessen the impact of rising inflation.

Also note that when eventually some multiplier effects take place and local production increases accordingly, extra employment might be necessary, although even this might be difficult in a stagflated economy because private businesses will tend to substitute labor for capital even more. In the case of some necessary increments in employment taking place, the economy will counteract the vicious forces of stagflation to some extent. Nonetheless, overall in both cases examined in this section the interventionist role of the government is negative. This was the case in Greece. However, in the case of South Korea, the interventionist government acted in a different way: it solidly supported private businesses to produce and export which (together with some other measures) prevented unnecessary inflation and of course stagflation. Let's see in the model just developed in this section how this is applicable to Korea.

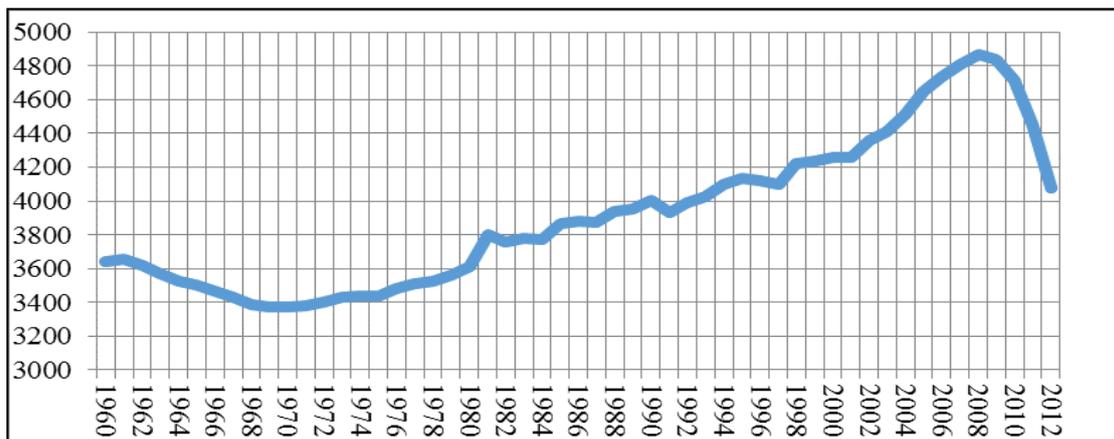
In our first case whereby employment in Greece was increased in the unproductive (low productivity) public sector, overall productivity decreased and hence eventually inflation and stagnation of output took place. In other words we have  $Y_{t''} / L_{t''} = A_{t''} < Y_{t'} / L_{t'} = A_{t'}$ . In Korea, on the contrary, increased employment occurred in the healthy and highly productive private sector, hence we have  $Y_{t''} / L_{t''} = A_{t''} > Y_{t'} / L_{t'} = A_{t'}$ . Accordingly, the consequences were very different in the two countries, disastrous for

Greece, constructive for Korea. Even the inflation that occurred in the latter nation during the 1960s and 1970s was due to overheating of production and productivity and once some structural problems were corrected then inflation plummeted to very low increases. In our second case whereby government borrowing on the open markets in order to finance budget deficits and hence government expenditures never took place in Korea.

### 3. Fundamental issues

In this section we will mostly follow the course of arguments of the previous section. Thus, we will first examine the total employment series in Greece. In Figure 1 we can see that total employment decreased in the 1960s (most likely due to emigration), then it started climbing in the 1970s reaching the same level in 1980 as in 1960. Then suddenly in 1981 (the election year when the socialist party PASOK won the elections for the first time), in one year it increased by 200,000 employees and thereafter steadily increasing up to 2000 and then even more rapidly increasing in the 2000s up to the financial crisis after which it plummeted down to the level of 1990. The increase from 1980 up to 2000 in total employment was about 600,000 and from 2001 to 2008 it was about 600,000 again, a total increase since 1981 of about 1,200,000 employees. From 2009 to 2013 the drop was about 900,000 thus in 5 years offsetting most of the 1,200,000 increase from 1981 to 2008. This drop of about 900,000 is the employment bubble that the Greek governments created since 1981; a big part of this bubble was absorbed by the inefficient public sector (both government services and public companies); however, a large part of the drop during 2009 to 2013 came from the private sector (because this sector does not have strong unions, contrary to the public sector which is extremely unionized).

**Figure 1. Total employment in Greece**

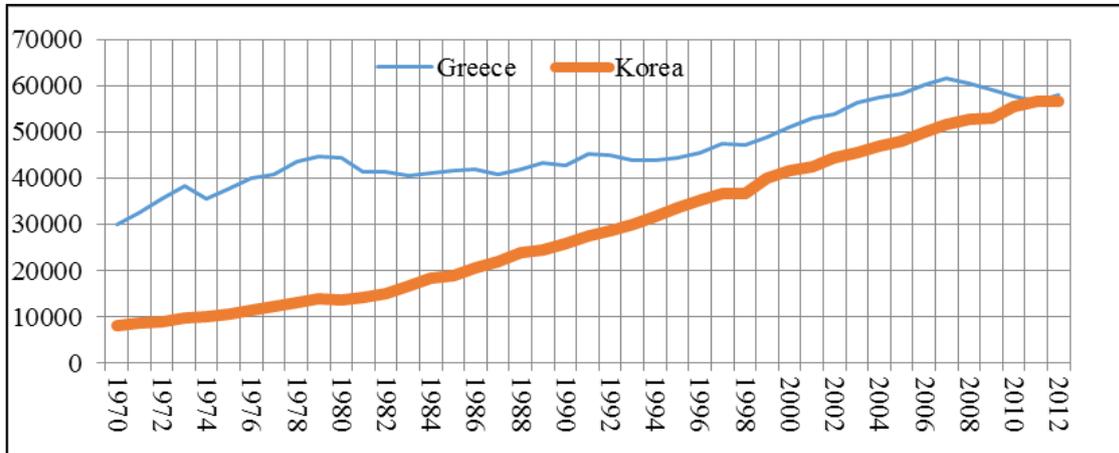


Source: AMECO

What are the consequences of the 1980s just described employment situation with reference to our model in the previous section? First, the labor productivity-see Figure 2- dropped as predicted and remained approximately constant for a decade, then slightly increasing up to 1998 and then steadily increasing after that. Second, and as predicted by our model, inflation was generated (see Figure 3) and as exacerbated by the two oil price hikes in 1973/74 and 1980, inflation was kept in double digit growth rates till about the mid-1990s. As already explained in the previous section such an inflation mixed with stagnation of the economy was a disastrous period for Greece.

The paragraphs in the remaining of this section describe the ensuing detailed consequences. Note that for Korea<sup>3</sup>, labor productivity as shown in Figure 2 was kept at very high growth rates because in this country, the policies followed were very different as briefly mentioned in the previous section and they will be further analyzed in another section below.

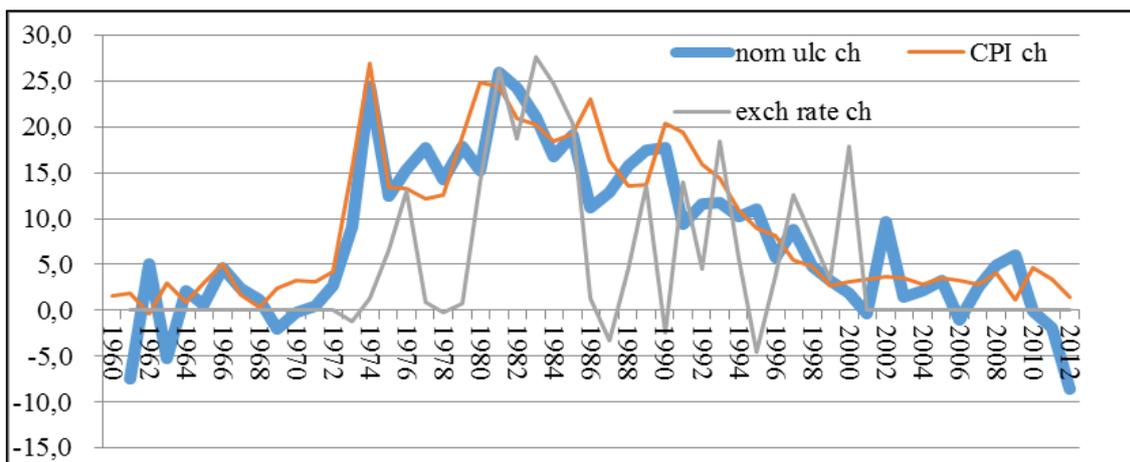
**Figure 2. Labor productivity in Greece and Korea**



Source: OECD

Let us then further examine the issue of inflation and other prices as shown in Figure 3. First the CPI yearly percentage change had a structural shift upwards from 1973 and 1974, and then it remained high in the 1980s and finally started declining in the 1990s. Not surprisingly, the same pattern is clearly visible for the series of ULC (nominal unit labor costs) which are the ratio of compensation per employee to real GDP per person employed (or PLCD in AMECO database). Finally, the series of nominal exchange rate follows the pattern of the previous two series despite some notable differences, mainly due to the nearly fixed exchange rate regime that prevailed during the whole period (including the Euro era). As the ULC represents changes in labor costs above changes in labor productivity, it becomes obvious that the fundamental principle of  $W=MP \times P$  (where  $W$  is wages,  $MP$  is marginal product of labor<sup>4</sup>, and  $P$  is the price level of the economy<sup>5</sup>) has not been followed, in particular during the second half of the 1970s<sup>6</sup> and the 1980s decade. Therefore we have the simple mechanism according to which  $W/MP$  grows and hence  $P$  grows, or both  $W/MP$  and  $P$  grow at the same time. The correlation coefficient between  $W/MP$  (which is our ULC) and  $P$  (which is our CPI) is 0.87 for the whole period of 1960 and 2012<sup>7</sup>.

**Figure 3. Price and wage changes in Greece**

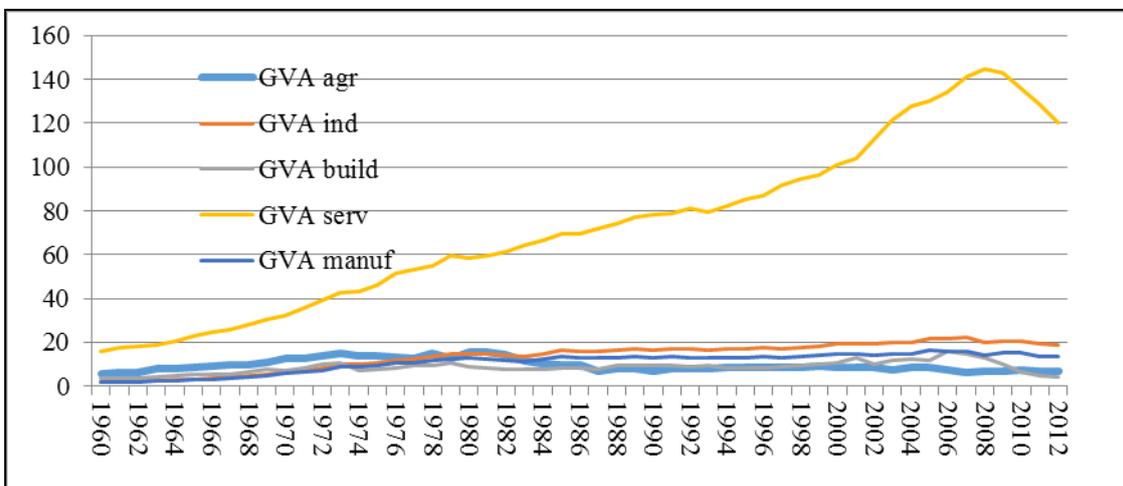


Source: AMECO

What are the consequences of such a maneuvered<sup>8</sup> relationship between  $W/MP$  and  $P$ ? Unfortunately they were disastrous for the Greek economy and even worse, they were exacerbated by other wrong policies. First, the parallel increase in wages above productivity ( $W/MP$ ) and the level of prices (CPI) entailed a substantial increase in the devaluation of drachma (the Greek national currency). This was not a negative consequence in itself<sup>9</sup> except that when Greece joined the Euro area this continuous currency devaluation was not possible anymore. In turn, the consequence of this impossibility was that during the recent global financial crisis, Greece had to internally devalue (hence wage devaluation) whereas the possibility of an external devaluation would have been desirable indeed as we discuss later.

Second, the maneuvered increase in  $W/MP$  (ULC) and  $P$  was the most undesirable event for the development of Greek industries and in particular of the Greek manufacturing industry, since we know from basic economic principles that increases in wages above productivity and prices (at least prices of intermediate goods) entail a decrease in local Greek supply or production of goods; this was also shown in section 2 above. On the contrary, wage increases did not “harm” the services sector (mainly governmental services) which was subsidized by increasing government borrowings as will be discussed further below. All this actually took place in the Greek economy as the following graphs show. Figure 4 depicts the gross real value added of the five main sectors of economic activity in Greece. Normally, as the economy advances, services become more and more important. However, in the case of this country, this increasing importance came into being too fast, without the industrialization process to precede before the economy becoming services oriented.

**Figure 4. Gross value added (in 2005 prices) per sector of economy in Greece**



Source: AMECO

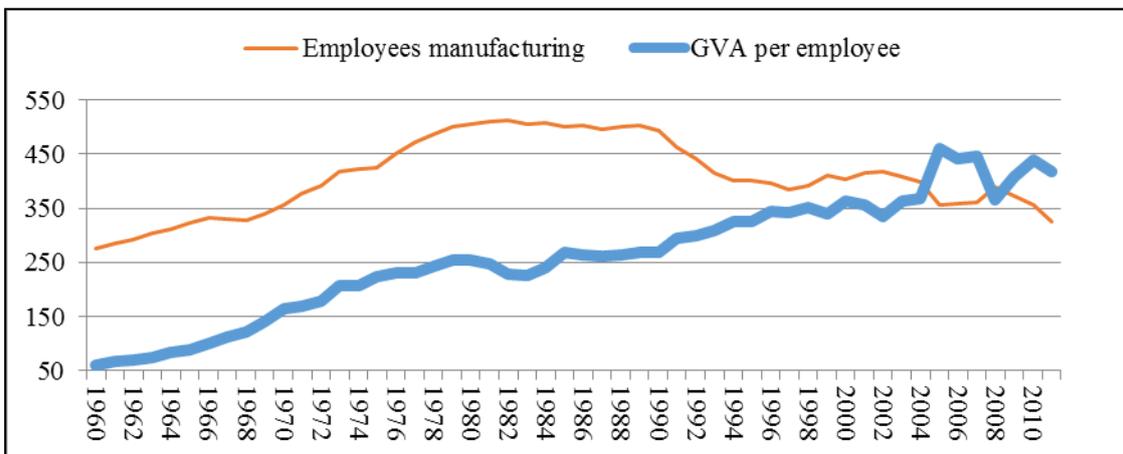
Thus, all sectors except services were kept at a minimal constant percentage during the 50 year period as Figure 4 shows; industry in general and manufacturing in particular never grew more than 20 % of total GVA; on the contrary, services GVA grew from 55% in 1960 to 73% in 2012. Let us confirm this situation by looking at the

<sup>8</sup> It was maneuvered for political reasons to satisfy the clientele relations between parties and voters, as we will further explain below.

<sup>9</sup> Many developing countries go through currency devaluations as a consequence of economic development and increases in real wages.

manufacturing employment as Figure 5 shows; we can see that employment started declining in the 1980s; manufacturing productivity during the 1980s was kept constant and then steadily increased. To further confirm the relative de-industrialization of Greece, we had a look at the industrial sectoral growth from 1987 to 2007 (detailed results not shown here); we found that a slow progress has been made regarding the development of new high technology sectors such as electronics and sophisticated machinery. However, and as the examination of exports can testify (not shown here), there still exist in Greece many industries and factories which can be further developed under the right policies of governments.

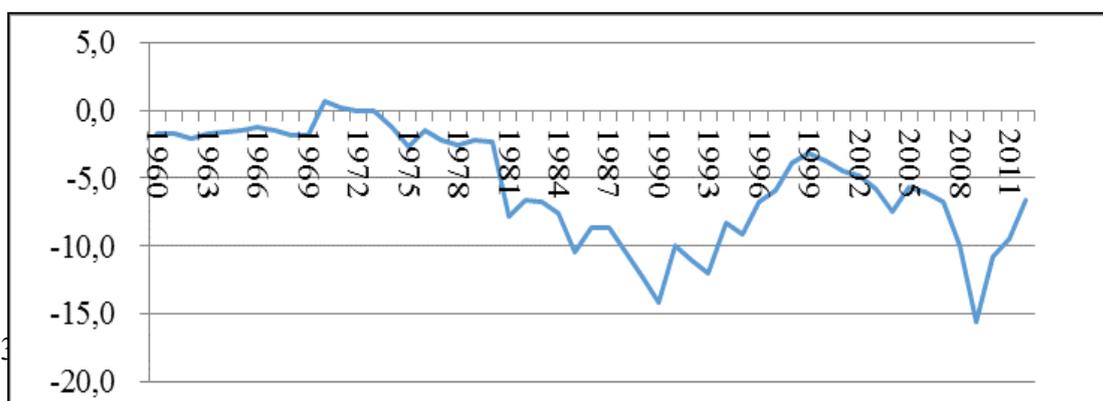
**Figure 5. Gross value added (at 2005 prices) and employment for manufacturing in Greece**



Source: AMECO

Third, high  $W/MP$  has been possible due to an unhealthy growth of the Greek public sector. This is closely related with the consistently high budget deficits since 1981 and the underlying high involvement of government in the Greek society and economy through very high expenditure for consumption and welfare purposes. In Figure 6 we can see that the budget deficit started increasing in 1981, then reached a maximum by 1990 and decreased during the 1990s till it reached a minimum in 1999 (so that the EU prerogatives for joining the Euro area were satisfied), after which year it increased again to reach a second maximum in 2009; the strict austerity measures imposed onto the Greek government by its international lenders was the cause for the sharp decrease of the budget deficit after 2009. In Figure 7 we can see that government expenditure as a percentage of GDP started increasing dramatically after 1981, then reaching a high plateau during 1992 to 2006, then sharply increased again during 2007 to 2009, before decreasing again due to the austerity measures.

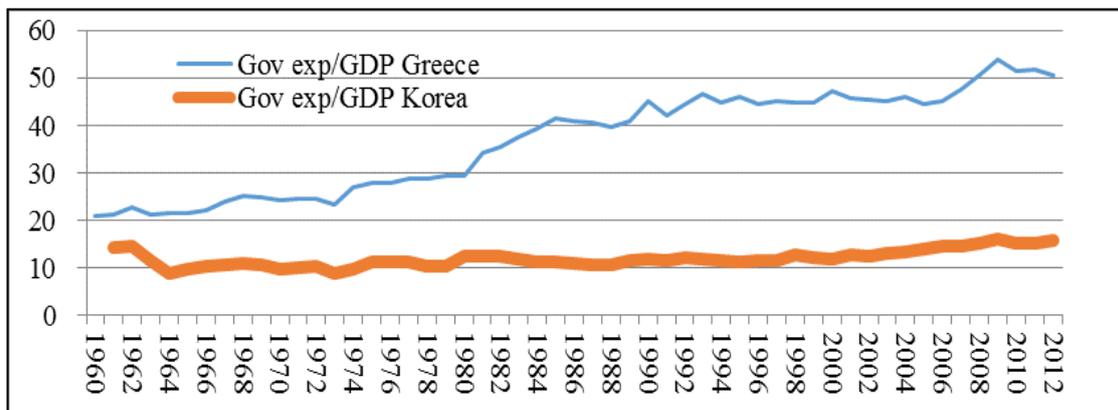
**Figure 6. Budget deficit in Greece**



Source: AMECO, Dimelis (2010)

The level of government expenditure as a percentage of GDP has been around 45% to 50% for more than two decades, that is, from 1990 to 2013. Such a high percentage is not necessarily harmful<sup>10</sup>; hence it would have been very probably beneficial to the Greek economy if the borrowed capital was spent on investment; or if the industrial sector was strong enough to generate more income according to general multiplier principles. Unfortunately this was not the case. Most of this capital (about 85% to 90% out of total expenditure excluding interest paid) was spent on social benefits (hence consumption) and increasing wages to pay the public sector. Note that the combination of high government expenditure with high deficits meant that government revenue did not match the growth in government expenditure. Also in Figure 7 we include the same ratio of government expenditure to GDP for Korea. It is clear that in this Korean case that this ratio never exceeded 20%, thus sharply contrasting the Greek case.

**Figure 7. Government expenditure over GDP ratio (%) in Greece and Korea**



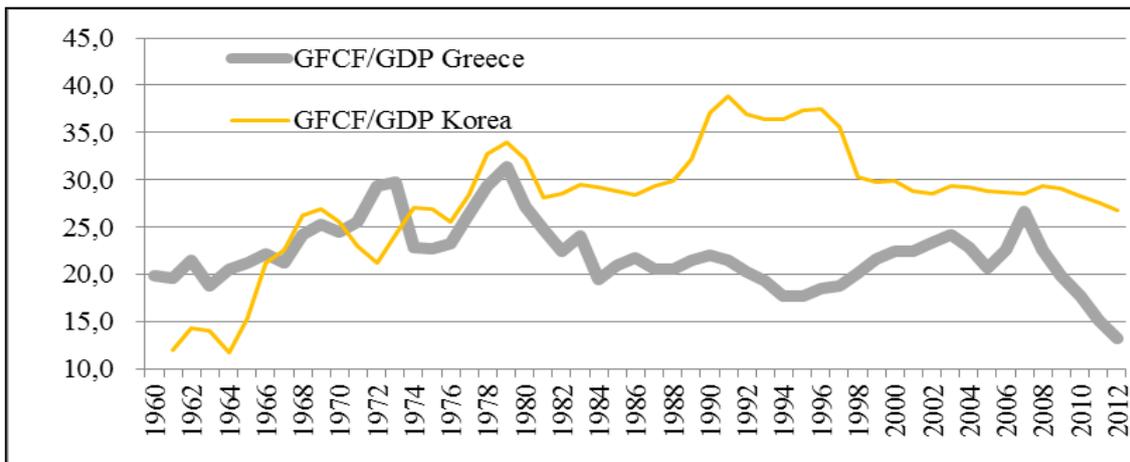
Source: AMECO

We can now make some further verification about the consequences of these disastrous policies (as described in the analysis so far). First, in a country where extra large employment took place in the unproductive public sector, prices (wages, CPI) were running abnormally high and the huge budget deficits were used to finance consumption (rather than investment), it is not surprising that the overall level of the latter (GFCF) remained low and in relation to GDP also low. In Figure 8 we can see that investment (GFCF) as a % of GDP grew steadily till 1980 (when it reached about 30%), then it started decreasing or remaining constant till the mid-1990s reaching the very low level of about 17.5%; then it grew steadily again till 2007 but it never reached the level of 1979/80. During the crucial decades of the 1980s and 1990s, the average ratio of GFCF<sup>11</sup> to GDP was around 20% which is not deemed to be a high ratio for a developing country in order to reach a sustainable high growth of economic development (for example according to multiplier principles). This stagnation in investment was predicted in our model in section 2 above and is in sharp contrast to Korea's case as seen in Figure 8; the ratio of GFCF to GDP reached the very high 40% level at the start of the 1990s when Korea's economy was taking off to sustainable development.

<sup>10</sup> Many other countries have experienced the same percentage, even higher, than Greece (see for example, Schuknecht and Tanzi, 2005).

<sup>11</sup> The ratio of government GFCF to GDP has been steadily or slightly growing from about 2-2.5% in the 1970s to about 3.5% in the mid-2000s (a very low percentage).

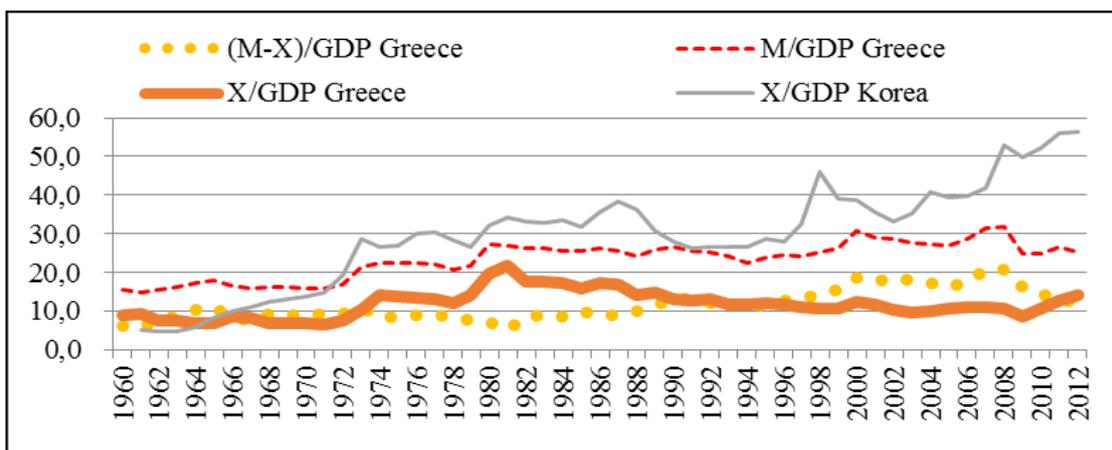
**Figure 8. Investment (GFCF) as % of GDP in Greece and Korea**



Source: AMECO

Second, as most of the budget deficit was spent on consumption and as prices (wages and CPI) were double digit; and as local manufacturing was stagnant; and as the standard of living was rising (hence consumers needing more and more capital household goods) imports were the means by which increasing consumption was satisfied in order to acquire goods generally not produced in Greece, such as cars and electronic goods. Indeed, as we can see in Figure 9, the balance of goods and services (negative as imports always exceeded exports) over GDP started increasing from the end of 1980s when the government deficit was already very large. Although the ratio of imports over GDP increased from the 1970s and again furthermore from the 1980s (due to the two oil price hikes), and although this ratio was stabilized around the 25% mark, it was the ratio of exports over GDP that showed a clear decline from the outset of the 1980s. The exports to GDP ratio decreased to 10% (very low) in 2009 and then “miraculously” started increasing again during the recent global crisis as the level of GDP declined and as the level of exports increased due to the decline in wages, making thus exports more competitive once more; in 2013/14, the balance of trade might become positive again. On the contrary, for Korea, one of the first developing countries to promote exports as a means for development, the exports to GDP ratio steadily increased since the 1960s to reach almost 60% by 2012.

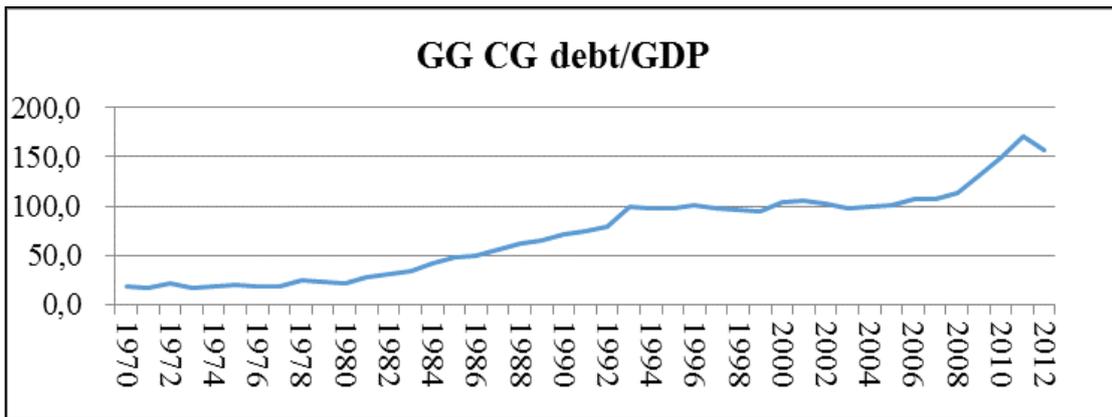
**Figure 9. Imports, exports, and balance of goods and services in Greece and Korea**



Source: AMECO

Third, the total public debt to GDP ratio started increasing very rapidly from the outset of the 1980s as we can see in Figure 10. From 1970 to 1980, this ratio was kept very low at about 20%, but it reached 100% in 1993; then it was constant from 1994 to 2007 at about 100% on average; but it started rapidly climbing from 2008 till 2011 and then stabilized at the level of about 175% to 180%. Such a huge increase of the public debt during the 2008-2011 period was the main cause of Greece not being able to borrow anymore from the free markets and hence forced this country to follow strict austerity measures as imposed by its international lenders. Note that for Korea, the same ratio (not shown here) has always been lower than 40%.

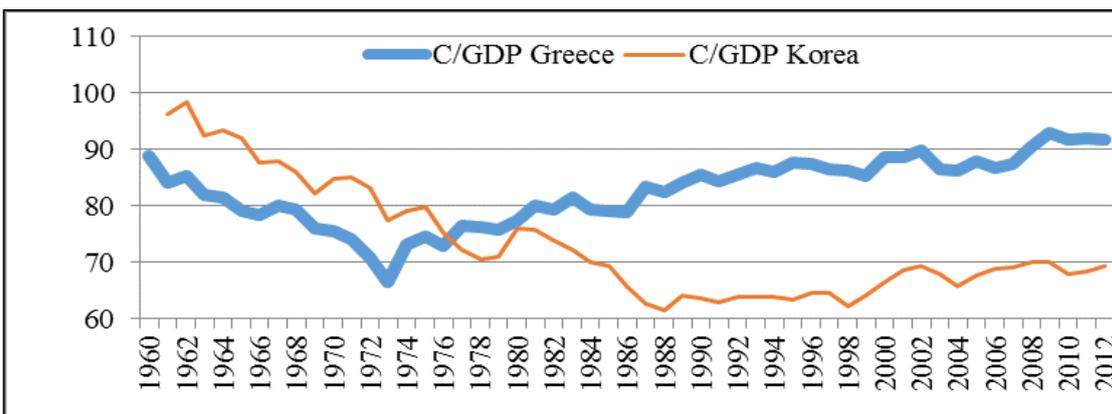
**Figure 10. General government consolidated gross debt in Greece**



Source: AMECO

Fourth, as expected, the ratio of consumption to GDP is very high and has been growing since the mid-1970s, as Figure 11 shows; although for the decade 1995 to 2005, it was stabilized at about 88%. These percentages are amongst the highest in the world. On the contrary, for Korea as shown in Figure 11, this ratio kept declining from 1960 up to 1988 and then remained approximately constant at the level about 70% in the last decade. Again, we can see a sharp contrast between Greece and Korea.

**Figure 11. Consumption to GDP ratio in Greece and Korea**



Source: AMECO

Fifth, the inflow of foreign direct investment (FDI) has been very low (graph not showed here, but see Bitros, 2012). However, the outflow of Greek FDI jumped to very high levels during the 2000s, thus showing another paradox of the Greek economy: although Greece is not a heavily industrialized country, it behaves like one thus investing abroad due to excess liquidity by capital owners who face very high

wages and prices in this country. The consequences of both a low inflow of FDI and a recently high outflow of FDI have been disastrous for the Greek economy: the low inflow of FDI does not contribute to the Greek economy, almost not at all; and the recent increase in outflow of FDI takes precious capital away from Greece (part of the total capital outflow is also due to the recent austerity measures).

#### **4. Discussion of policies: past and present**

Can we put all the above analysis into some simple summary which shows the chain of events, their interactions, and their consequences? At least for Greece this seems to be rather straightforward. Up to the mid-1970s the Greek economy was behaving like any other healthy economy despite some inherent problems that persisted after the civil war of 1946 to 1949 (see Bitros, 2012). However, from 1974 (the year of democracy re-establishment) onwards, and especially from 1981, the then governments encouraged a surge in employee compensation together with large increases in employment, which was immediately translated into high inflation<sup>12</sup>. All this was shown in Figures 1, 2, and 3 above where we can see a very close relationship between unit cost of labor and CPI annual percentages<sup>13</sup> as well as productivity stagnation.

This policy of very high wages and salaries and exacerbated by an unhealthy large public sector by hiring many public employees for clientele reasons in order to artificially catch up with the more developed countries of Europe was the initial and most crucial government policy that changed Greece into a gradually dependent country on its international lenders. A corollary of this policy was the excessive government expenditure which promoted consumption to the detriment of investment<sup>14</sup>. Not only, government investment was very small but also private investment was kept at very low levels since the money supply generated by budget deficits was more and more dedicated to consumption. Although the policy adopted to have a high proportion of government expenditure out of GDP (about 45% to 50%) is not in itself a bad policy<sup>15</sup>, Schuknecht and Tanzi (2005) suggested that 30% to 35% might be sufficient for an effective support of the economy<sup>16</sup>. In general, the multiplier effects are not clearly defined and evaluated in economics as yet. In addition, in Greece government expenditure induced internal demand and not vice-versa. From the mid-1970s till the outbreak of the global financial crisis in 2007/2008, Greece has been heavily borrowing internationally in order to feed its excessive consumption with disastrous consequences: huge foreign debt (thus jeopardizing national sovereignty), a small and decreasing manufacturing sector, low investment ratio (for a country which was still developing in the 1980s and 1990s), and low productivity.

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<sup>12</sup> We must however allow for the negative impact the first huge oil price had on the Greek economy (and any economy in this respect). Nonetheless, the government did not take measures to diminish this impact.

<sup>13</sup> A regression with CPI percentage changes as dependent and compensation per employee with lags up to 2 years as independent variables shows that inflation is approximately 60% explained by these explanatory variables.

<sup>14</sup> A good summary on all these remarks regarding negligence of investment, policies to redistribute income etc in the 1970s, 1980s etc can be found in Michaelides et al (2013).

<sup>15</sup> For some models (although not related to the Greek case) of the role of budget deficits in economic growth can be found in Minea and Villieu (2012), and Greiner and Flaschel (2010).

<sup>16</sup> The role of government expenditure has been extensively analyzed in the literature, but the Greek case does not usually fit these models as Greece used deficits for non-productive purposes (see for example, Devarajan et al, 1996).

All this was further undermined by the country's participation in the Euro zone, since this allowed easier and increasing borrowing in European financial markets. Being a member of this zone entailed another disastrous consequence, mainly during the recent global crisis. This can easily be understood by referring to the optimum currency area model which suggests that under fixed exchange rates (or the equivalent case of a common currency used by regions or countries in a given geographical area), a country not being able to devalue its national currency in order to correct economic imbalances should instead devalue internally in terms of wages and prices in general (see for example Krugman et al, 2012); and the other way round, that is, a country not being able to revalue its national currency in order to correct economic imbalances should instead revalue internally in terms of wages and prices in general.

Greece belongs to the first case; hence it should devalue internally in order to offset the mismanagement of its economy; and Germany belongs to the second case; hence it should revalue internally in order to offset the good management of its economy. The Greek internal devaluation has been taking place since 2009; hence a substantial drop in wages and salaries of about 35% occurred during 2009 to date. On the contrary, Germany's wages and prices have remained almost constant in the past 15 years (see for example Malliaropoulos, 2010); Germany's inertia in this respect makes it more difficult for Greece to get out of the crisis speedily and more efficiently. Several scholars have already suggested that Germany should have increased its wages faster than Greece (see for example Stockhammer and Onaran, 2012); also see De Grauwe (2012) who has emphasized the asymmetry of wages between Germany and other countries in Europe in terms of internal devaluations or revaluations. To contrast all this with Korea, the latter never faced such problem, since it devalued its own currency whenever it deemed it necessary.

Overall, the Greek policy to join the Euro zone for "prestige" reasons and for easier borrowing to finance its preferred budget deficits led to impossibility to deal with the recent global crisis effectively and speedily: a heavy devaluation of drachma would have been the first measure to take like it was taken before when Greece had this possibility (see also Panayiotou, 2012). If Greece was not part of the Euro zone, first, most probably borrowing would have been less, and second, most important, this country would have been able to devalue its currency and correct imbalances more efficiently and faster. In this respect, note that Korea devalued its currency Won by about 50% during the Asian Financial Crisis of 1997/98. On the other hand, by staying in the Euro zone, it is also advisable (besides improving their own home conditions) for many European nations to put pressure on the German government (and Austrian) to raise wages.

Needless to say, however, that the onus for the Greek recovery is on the will and wisdom of the Greek authorities. They must follow and implement the already well known and suggested policies by several scholars of reducing its public sector, making it more efficient and productive, introducing a better institutional framework for the proper functioning of democracy, encouraging investments, designing a long term planning process for fixing development priorities, and promoting key industries where Greece would have a comparative advantage. Each one of these suggestions would require a separate paper to fully show the arguments, and hence it is out of scope of the present study.

However, we must provide here even a brief explanation as to why successive Greek governments till recently have not taken any measures to change the society and economy. Due to path dependence the civil war that apparently ended in 1949/1950 continued within the state structures and institutions. Thus, the civil or public servants in Greece have been the arena of customer relations between members of parliament

and them regarding preference of parties, policies and favors. The median voter (as per public choice theory) has been manipulated to fit “rightist” or “leftist”, or “communist”, or “to the center” “ideologies” promoted by mass media and oligarchies of power such as mass media groups, parties and workers unions and other lobbies of the Greek society. This was a new civil war with party members and party voters dictating economic policies to the detriment of healthy economic development. In a more specialized jargon, Greece has been a typical case of a political manipulation of the economy, see for example Roberts and Legg (1991) and hence government expenditures were used not for achieving economic development but political survival (for more on this issue see Kiefer, 2000; Wagner, 1977).

Furthermore, the science of economics is completely ignored in Greece for practical purposes; the economists are called technocrats in a derogatory manner; nobody knows exactly what “economics” means in this country; everybody is and wants to be an “oikonomologos” which at the end means nothing and everything<sup>17</sup> (this Greek word can mean economist, accountant, financier, etc); there is no special word for “finance”; etc. We have experienced this confusion in our daily activities in Athens. Of course in university circles, the situation is different; for example, in Yanitsis’s edited book (2008) several notable Greek scholars have pinpointed at the problems of and solutions for the Greek economy; see also Alogoskoufis (1994), Bitros (2012), and Kollintzas (2000). However, politicians do not listen to academic economists (see Bitros, 2012). Has this situation been changing recently in the very difficult moments of recession and high dependence on the country’s lenders? We are not sure about the answer here; time will show. Overall, the inexistence of the appropriate wisdom of economics has been re-enforced by the clientele relationship between voters and parties as just mentioned in the previous paragraph; and by the tendency to see everything through the lens of “ideologies” (“leftist”, “capitalist”, etc). To contrast all this with Korea, the latter remained rather “neutral” in terms of ideological battles, probably because of historical necessity (force of benevolent dictatorships, threat of North Korea, and so on).

## **5. Brief comparison between the Korean and the Greek economies**

The Korean government<sup>18</sup> was highly interventionist in the economy in terms of consistent long term policies through the 5-year plans which were precisely executed. These plans contained a well-chosen set of economic and institutional priorities. On the contrary, in Greece economic policies were set as a reaction to short term conditions and were not proactive for long term performance; however, during the period 1955 to 1974 (the Greek economic miracle period), there was some basic planning and some long term targets were set. In addition, a steady Korean government (although not democratic) was the key to a steady and safe place to do business and prosper during the crucial period of the Korean economic take-off. On the contrary Greece was governed (except for a 7-year period) by democratically (even that was doubtful a couple of times) elected governments whose main preoccupation was to secure their next term in office via clientele relationships (by hiring public servants with no economic basis for this hiring in order to get their favorable vote).

The main purpose of all Korean governments was to produce as much as possible in almost all industries with the aim to sell as much as possible to other countries

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<sup>17</sup> This is ironical because economics is a Greek word and the first books in economics were written in Greece since the time of Aristotle, Xenofon and others.

<sup>18</sup> Most of the information on Korea is based on Sanidas (2012).

(exports). The Greek economy was more introverted and never went beyond the stage of light industries in a successful manner, with exports remaining at low levels. The emphasis on production in Korea was supported by numerous microeconomic policies to the detriment of macroeconomic ones (Song, 2003); in Greece it was rather the contrary. It should also be stressed that Korea was one of the first countries to choose export promotion instead of import substitution as a distinct policy for rapid economic development; Greece did not follow an export promotion policy nor an import substitution policy, since imports were the easy solution as already explained. A good example of the micro economic emphasis is the importance attached to the development of key industries in Korea, such as the shipping industry and the steel industry; on the contrary, in Greece, despite a strong tradition in shipping and a strong social class of ship owners, this industry never became as strong as the ship owners (this was due to numerous industrial relations conflicts and weak government initiatives).

Furthermore, due to a very carefully designed economic planning process, consumer products were relatively early produced in Korea and when income per capita gradually grew Koreans did not buy imported goods but locally produced. On the contrary, in Greece economic policies were such that early in the development process, Greeks satisfied their increasing consumption needs via increasing foreign debt and hence through imports since local manufacturing was stifled and the services sector grew unnaturally very large mainly because of a very large public sector. This situation was exacerbated by the fact that in Greece there has been a political manipulation of the economy. On the contrary, in Korea it has been the other way around: economic policies have been central to political agendas.

Greece was entangled from the mid-1970s and especially after 1980 to the vicious circle of stagflation, mainly as result of increasing budget deficits to finance an increasing public sector and consumption, thus lowering productivity and investments. On the contrary, Korea although had a high inflation rate for most of the 1960s and 1970s, it was never a victim of stagflation and through continuous labor productivity increases became a huge production nation. In this country, this production attitude was assisted by the continuous deliberate development of technology as initiated by both government and business such as chaebols. Effectively, in Korea from the outset very large corporations were established and with the support of governments they became the well-known chaebols such as Samsung and Hyundai. These chaebols contributed and still do a great deal to the spectacular development of the Korean economy, as there is evidence that big business play an important role in economic growth, see for example Lee et al (2013). On the contrary, in Greece, mainly due to political disputes and arguments, big businesses have not been assisted by governments and their role is not important in Greek economic growth. In addition, since most economic activities are initiated on a government level, then private business activities are stifled in this country, contrary to Korea.

Some other details will clarify the present comparison between the two countries. Thus, both Greece and Korea spend a very high proportion of their public budget in military defense. However, Korea has developed a healthy arms industry, but Greece has not (mainly due to political manipulation). Also, both Korea and Greece have a very educated population, but Korea has given priority to research and development from early stages and Greece did not. Both countries experienced a very cruel civil war; both of them experienced a quick recovery and fast growth till 1974. But Greece regressed after that year due to both political and economic reasons. On the contrary Korea became stronger and stronger. A comparison between the neighbors of Greece and those of South Korea shows that Korea is situated in a very competitive area of the

world with strong neighbors. The contrary can be said about Greece. A recent study on Serbia, as per Adjic and Jevtic (2010), shows that this country faces similar problems as Greece today. Finally, in both South Korea and Greece the black or shadow economy has been a large proportion of GDP. Probably, however, the impact of this high proportion has been worse in Greece than in Korea due to the much healthier business private sector in Korea relatively to Greece. Finally, a main outcome of economic policies in Korea is that public debt is below 40% of its GDP (one of the lowest in the world), but it is over 180% in Greece (and it is mainly foreign debt), one of the highest in the world.

## **6. Conclusion**

We first presented some stylized facts about the relationship between production, productivity, inflation, etc. which demonstrate the relative importance of these factors in promoting economic growth through appropriate economic policies in both Greece and Korea. Then we showed and briefly analyzed the main issues that prevailed in the non-paradigm of Greece's economic development. We then discussed policies during the last 45 years or so. We also briefly compared Greece and South Korea in several ways. Let us now summarize the wrong or negative characteristics of the Greek experiment. First, employment was artificially (via government decisions) increased in unproductive services which subsequently reverted back to unemployment during the recent global crisis; at the same time, wages and salaries were excessively above productivity. Second, government expenditure was excessively above the capabilities of the economy, hence the continuous large budget deficits. Third, government expenditure supported consumption and not investment. Fourth, there was negligence to realize that the developing economy in the 1970s, 1980s, and 1990s was not ready yet to support an excessive services sector with the consequence of a very small manufacturing sector as the final outcome. Fifth, there was carelessness to realize the continuous and growing balance of payments deficits with the consequence of a continuous pressure on devaluing the national currency while that was possible. Sixth, a high inflation rate during the "tender" years of economic development from the mid-1970s to mid-1990s prevailed. Seventh, the joining of the Euro zone for "prestige" and easier international borrowings to support consumption blocked the Greek economy from the possibility of own currency devaluation during the recent global financial crisis. Eighth, there was negligence to realize that very high wages in Greece forced the industrialists to shift their factories and businesses from Greece to other "cheaper" countries in the last 10 years; this took place without this nation having being able to reach a sustainable industrial development in its own country. Ninth, due to the excessive and unproductive public sector, private business and especially big business was in general stifled in Greece; on the contrary, in Korea private business and especially chaebols became the strong motor of its economic development.

The explanation as to why successive Greek governments "failed" to rectify the disastrous policy orientation for a very large state sector and its consequential very large government expenditure can only be found in the path dependence of Greek institutions of "democracy" and wisdom. It was indicated, that the civil war in Greece never in fact ended after 1950, but continued in the government structures and institutions till the present days. Despite this hidden war, due to the recent prolonged recession with large reductions in wages and high unemployment rates, these structures and institutions are changing in a positive way. However, Greece needs a long term growth strategy (see for example, Brenke, 2012); this strategy should be carefully formulated by all concerned parties of the Greek society. Such a strategy was

pinpointed at by various researchers a long time ago (see for example Bitros, 2012; Marinos, 2012). In general, many Greek scholars have pinpointed at the problems of the Greek economy (apart from those already mentioned, see several articles of several authors in IMOP, 1996); non-economist groups should start listening to expert economists now!

When comparing the Greek and Korean economies and the policies followed in these two countries, it becomes even more noticeable why these policies were formulated: they were put together only in order to manipulate the Greek economy for the benefit of politicians and those in power. The Greek governments intervened in the Greek economy to finally bring it to the brink of total collapse. The Korean governments intervened in the Korean economy to finally bring Korea to the top 12 most developed countries in the world today. This contrast is even more perceptible if we remark that both nations started from the same very low basis of economic development after World War Two.

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