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# FISCAL DEVELOPMENTS IN GREECE 1980-93

A critical review<sup>1</sup>

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## 1. INTRODUCTION

The habitual story of the Greek economy for the last twelve years or so has been the unsustainable path of public debt and deficits, the decline in investment and the slackness of real growth. In the period 1980-92 the average growth rate of aggregate economic activity<sup>3</sup> measured as GDP at Factor Cost (GDPF) was only 1.66% per annum, after averaging 4.8% in the period 1975-79. In per capita terms it was even slower at 1.03% in average. Total investment declined from 22% of GDPF in 1980 to 18.5% in 1992, after reaching a trough of 16% in 1987. Public debt rose from a mere 29% of GDP at Market Prices (GDPM) in 1980 to the alarming level of 107% in 1992.

Which have been the impediments to growth and the causes of indebtedness? To answer this questions we first briefly examine some developments of the Greek economy during the preceding decades. The traditional view of economic development held that a country offering low wages and characterised by an initially low capital accumulation would be able to attract investment away from countries with a highly paid labour force and low returns to capital. To a large extent, the history of high growth rates in postwar Greece can be explained by the above paradigm. During the 1950s and 1960s foreign investors found Greece to be a country with a low accumulation of capital, and a workforce that was effectively disciplined through a combination of enhancing labour supply from the agricultural sector and repressing trade unions activity - sometimes brutally. In the meanwhile, the state managed to keep an adequate level of aggregate demand which, in combination with import barriers and factor availability, helped to maintain high levels of employment. A series of events in the mid 1970s put an end to this process.<sup>4</sup> The oil shocks of 1973 and 1978 meant a reorientation of world production towards more advanced technologies, the implementation of which required a different economic environment than before. Fixed capital investment became scarce and started to concentrate in countries that could offer a highly skilled workforce, modern infrastructure to support the changing modes of production, and a stable institutional framework to minimise the uncertainty of expected returns. None of these conditions were adequately met in Greece during the last two decades, due to persisting shortages of skilled labour force, the insufficient amount and quality of infrastructure, and an uncertain environment stemming either from geopolitical factors or

<sup>&</sup>lt;sup>3</sup> Output is measured by GDP at Factor cost (GDPF) whenever it is related to economic activity. Whenit is related to market activity we use GDP at Market prices (GDPM). The latter is the convention adopted by EC for measuring fiscal indicators as proportions to GDP. The former is used to express activity-related expenditure, such as investment and exports, as ratios to output.

<sup>&</sup>lt;sup>4</sup> At the same period, there has been a world-wide shift of emphasis on both the mechanics of economic development and the role of demand-push policies.

the unpredictability of domestic policy measures.

The single most important characteristic of the Greek economy in the post-1974 period was the gradual reduction of national resources allocated to investment. Private and public investment taken together averaged 23% of GDPF between 75-79, but then started falling to a record low of 16% in 1987. Following the relative stabilisation of the economy achieved in 1987, investment started rising again to a modest 18.5% in 1992 but without any clear tendency to grow further. Growth followed the same pattern. In contrast, the growth rate of private consumption remained always positive, even in periods of severe contraction of output, suggesting intertemporal smoothing. In the absence of income growth, this had detrimental effects on savings and contributed to the fall of private sector investment.

During the same period, infrastructure was not sufficiently expanded or modernised. Public investment averaged 6.1% of GDPF in the first half of the period 1980-92, and then fell to only 4.9% for the period 1986-92. Both of these figures were substantially lower than an average of 7% during the seventies<sup>5</sup>. Similar neglect was shown for the advancement of human capital, although the measurement of human capital accumulation is more difficult<sup>6</sup>. As a result, Greece today is facing a large increase in unemployment of unskilled labour force, while at the same time there are shortages of specialised workers. On the other hand, the establishment of a genuine democratic system after 1974 meant that keeping the labour cost at competitive levels could not any more rely predominantly on the repression of trade-union liberties. Thus, there have been substantial real pay rises and the traditional attractiveness of low wages faded away without being substituted by advancing the skills of the work force.

The situation was aggravated by domestic demand-push policies conceived on the naive expectation

<sup>5</sup> The stock of public capital invested in transport, communications and electricity, as a ratio to the private capital stock in manufacturing has declined dramatically. From a ratio of 1.23 in 1975, public infrastructure falls to barely above unity in 1990, after a brief upward spell in 1984-85. Christodoulakis (1993b) establishes that this deterioration is strongly correlated with the fall of private productivity over that period.

<sup>6</sup> One can form an idea of the neglect by comparing the resources devoted to such a task by different countries. In a recent ex-post evaluation of the Community Support Framework (Brennan, 1993), Greece was found to have had the lowest allocation of funds during the period 1989-92 to the training of the workforce to new skills. Greece spent only 19% of its community funds to human capital development, while the corresponding figure was 60% for Ireland, 47% for Spain and more than 40% in Portugal. Moreover, press reports are revealing serious abuses of the funds by financing low-quality seminars and subsidising phoney training centres.

of boosting economic activity. In the absence of supply-side incentives, the rise in demand simply led to more imports and higher inflation. From Table 1, one can easily check the developments of unemployment versus inflation. It is clear that no tradeoff between the two can be discerned, thus demand-push policies did not have any significant and lasting impact on activity during that period. Public deficit rose dramatically - especially during elections - due to the higher public consumption and transfer payments, while the trade deficit widened by the acceleration of imports and the erosion of competitiveness due to the higher prices. Nevertheless, economic activity got stuck - a typical example of stagflation. Below, we examine some key measures and developments that contributed to such a deterioration.

First, there has been the introduction of wage indexation in 1982, preceded by a 40 percent increase in minimum wages. As shown in Table 1, labour cost rose dramatically at a period when other OECD countries were exercising tight monetary policies to restrain inflation. As a result, the inflation rate quickly started to diverge from the OECD average and at the end of the decade the differential was more than ten percentage points.

A second departure from previous practices, was the policy of gradual exchange rate management with a real exchange rate target adopted to maintain export competitiveness. Notwithstanding the fiscal expansion at the same time, pressure on the trade deficit was further increasing because Greece had to dismantle the protectionist system of subsidies and tariffs in its way to European integration. As productivity improvements stemming from technological innovation and microeconomic restructuring were not encouraged by the prevailing investment climate and the institutional rigidities in the labour market, the manipulation of the nominal exchange rate was the only measure left to the authorities to prevent a deterioration of trade deficit. This policy, combined with the automatic wage indexation policy, further fuelled price increases. Two separate attempts of temporary wage freezes in 1983 and 1985 aiming to break the vicious circle of depreciation and inflation did not have a lasting effect. Even more important was the establishment of inflationary expectations in the market, and a general lack of confidence in the ability of authorities to decide and implement a credible and lasting macroeconomic policy. Anticipating future inflationary policies, producers were increasing prices in advance, thus giving rise to self-fulfilling situations.

Third, there was an apparent inability of the authorities to raise tax revenues sufficient to finance the increased spending. Tax receipts as a ratio to output did not rise substantially for two main reasons:

(i) Tax rates on households' income were already high, not leaving much room for manouvering. The expansion of the tax base proved to be politically costly, and tax evasion continued. A property tax introduced in 1982 was quickly abandoned, while concessions on corporate taxation continued to be the central policy instrument for encouraging new investment. (ii) The introduction of the Value Added Tax system in 1987 to harmonise Greece with the rest of EC was hampered by the administrative inefficiency of tax collection, and , despite the rise in average rates of taxation, the introduction of VAT created more room for evasion by enterprises.

Fourth, there has been a sharp and sustained rise in both nominal and real interest rates, in order to make debt finance more attractive to investors and compensate for the depreciation expectations.

The above developments dramatically changed the position of the country relative to other EC and OECD economies. In the 1980s, most of the OECD economies underwent extensive rehabilitation by correcting the large fiscal deficits, attracting new investment and retraining their workforce to new technologies. None of these took place - at least to an adequate degree - in Greece. The result was the reversal of the trend observed in most of the postwar period during which Greece experienced considerably faster growth and lower inflation than the OECD economies in average.

Up to date, the situation continues to be very serious. Public debt will not fall in the following years, unless fiscal policy changes drastically to the harder. Budget deficit as a ratio to GDPM continues to be high at 10%, even after the primary deficit has been tamed down to 1.7% in 1991, and turned to a moderate surplus in 1992; see Figure 1. Inflation persists at around 12% despite the prolonged recession of the Greek economy. The privatisation plan that has been seen as the engine to drive the economy out of recession is implemented slowly and mainly for reasons connected with the financing of the deficit.

## <Figure 1 here>

Against this background, is there any chance for the Greek economy to be stabilised and exit recession? The answer could be positive only under stringent conditions not easily applicable in Greece. However, some change in policies and attitudes is noticeable. In the first place, the stabilisation task for the economy of Greece is not out of proportions. Other countries in Europe (such as Ireland, Belgium and Portugal) and elsewhere have successfully implemented stabilisation programs to reverse a deterioration of public finances of similar proportions. Second, there seems

at last to emerge some kind of consensus between the main political parties that a fiscal redress is necessary for the country not to jeopardise its chances for participating in the European Monetary Union. Although concrete stabilisation measures are not yet clearly spelt-out by the new government, the socialist party calls for the formulation of a social contract in the hope that it will make a fiscal correction possible without relying solely on the dramatic reduction of labour income.

The present study tries to analyze the determinants of the deterioration of public finances, and the scope of expenditure-reducing and revenue-enhancing policies. Devlopments in the various spending and revenues categories of different levels of government, namely the Central Government, the System of Social Security, Local Authorities, and Public Enterprises during the period 1980-92 are analyzed in conjunction with the policy measures and the general economic climate of the time. The paper also provides a description of the political influences on the formulation of the budget, and reveals that there is a substantial degree of political and party interference in the allocation of spending and revenues. This helps to explain the occurrence of strong political cycles during the last decade in Greece.

The rest of the paper is organised as follows: Section 2 reviews the main episodes of economic policy in Greece during 1980-92, with emphasis on the various stabilisation programs. Section 3 describes in some detail the expenditure and revenues as ratios to GDPM for each level of government and analyses some crucial features of the welfare system and the tax system. Finally, it provides some indices for debt sustainability and argues that the primary cause for public debt accumulation has been the excessive deficits and not the rise in interest rates. Section 4 gives a brief outline of the budgeting procedure in Greece, and discusses the importance of rules currently lacking. Section 5 presents some projections of public debt under alternative assumptions about growth and real interest rates, and discusses the possibilities for revenue-enhancing and expenditure-reducing measures. Section 6 summarises the main findings. Appendix A gives information on the data, and the way they were analyzed in the main paper. Appendix B analyses the behaviour of the budget along the business cycle, and Appendix C portrays the estimates of short and long run elasticities of various budget categories.

## 2. OUTLINE OF ECONOMIC POLICIES

Regarding fiscal developments, the main characteristic of the period has been the unprecedented expansion of public spending and the concomitant rise in budget deficits and government debt. A chain of stabilisation measures have attempted to reverse the process, but their success was either limited or short-lived. Surely the reason is not that there have not been enough attempts, neither that there was a shortage of policy-makers capable to carry out the task. During the period 1980-92 there have been four stabilisation programs - two by the socialist government and two by the conservatives - and ten ministers of the National Economy. Other factors, such as the short-sightedness of the parties in power, the influence of pressure groups, and the pre-electoral behaviour proved to be more crucial in determining the fiscal outcome. During the period 1980-92 there have been five general elections, and evidence abounds that the electoral behaviour of political parties should be largely held responsible for failing to stabilise the economy. One cannot fail to see from Figure 1 that spending rises and taxes fall below their trends during the election years, revealing a strong propensity of political parties to expand around the election periods. Below we examine the major episodes of fiscal expansion and the stabilisation programs that attempted to control the imbalances.

## 2.1. The pre-election spree: 1980-81

The first major departure from prudent fiscal policy was initiated by the Conservative government in 1980-81, before the elections of October 1981. Facing the prospect of defeat, the then incumbent party engineered a massive expansion of public spending accompanied by lower taxation - either explicitly through the reduction of marginal tax rates or implicitly by overlooking the collection of arrears. The explanation behind the expansion can be better understood by appealing to the literature of public choice and the studies on the political business cycle. Adopting such a pre-electoral behaviour, the incumbent party serves the following objectives: (i) retains the loyalty of its supporters in a period of dramatic shift of political preferences, (ii) provides its constituencies with favours before the electoral loss undercuts their access to the state machine, and, in a more strategic move, (iii) undermines the fiscal position of the future government by narrowing the room for financing its ambitious program of social reforms.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> For a discussion of these issues see Alesina and Tabellini (1987). They argue that in a multiparty system, each government tends to leave a legacy of high debt to its successor whenever spending priorities differ between the parties. Alesina and Roubini (1990) find that even "partisan" (i.e. idelogue) politicians may engage in pre-electoral fiscal favours that will enable them to remain in office. Another reason may be due to the presence of fiscal illusion as examined in Tabellini (1991).

As shown in Table 2, total spending of the general government rose by more than 5 percentage units of GDPM between 1981 and 1980, while total revenues fell by 1.4%. As a result the deficit excluding the fixed capital formation in 1981 rose to 6.4% from a mere -0.4% in 1980. Dramatic though they may seem, these figures reflect only part of the expansionary policy. An additional channel was the credit system. Total loans to the private sector increased by 30% between 1981-80, compared with a 20% increase in the previous year. Not only the interest rates on loans were considerably low, in a period of rising interest rates abroad, but scarcely was there any evaluation process concerning the impact of the project to be financed. At the end, only a small part of the loans was actually used to finance new investment, while the rest was either used for consumption or redeposited in the banks under more attractive interest rates.<sup>8</sup> This nearly exhausted the availability of credit, in a period where modernisation of Greek firms was mostly needed to face up the impact from EC participation on the competitiveness of domestic production.

# 2.2 The post-election spree

The massive fiscal expansion by the Conservative government did not manage to prevent the landslide victory by the Socialists, who came in power with a pledge to expand the social welfare system, nationalise major industries, introduce trade unions in the management of public companies, and enlarge the role of the state. On the other hand, they were accusing the outgone government of having followed "scorched earth" tactics, implying that the financing of the new welfare system was at risk and reforms should probably be postponed until a fiscal redress is accomplished. Despite its own warnings on the deterioration of public finances, the socialist government found it increasingly difficult to resist the demands of various pressure groups for their turn to benefit from the state. The first major step towards the new round of spending spree was the decision in 1982 to increase the minimum level of wages by 40%, as a means to compensate for real wage losses in the past. Implemented in a period of increasing openness to foreign competition and with public finances already overstretched, the measure was a recipe for disaster. Unit labour costs rose by 26% in 1982 (see Table 1) and, after a while, several firms - especially of medium size - were out of business. Unemployment started soaring in levels never experienced in Greece in the past<sup>9</sup>. Many of those firms that remained in business show their profits rapidly declining and soon became unable to service their borrowing obligations. Fearing a further rise in unemployment, the government decided that, instead of being liquidated, they should be transferred to the Organisation of Enterprises

<sup>8</sup> The OECD Survey for Greece (1987) refers to this phenomenon as the "round trip".

<sup>9</sup> The discrete rise in unemployment in 1983 should be interpreted with care, since at that year there have been new criteria for benefit eligibility that led to the expansion of the official dole.

Restructuring (OAE), a state agency created in 1983 to reorganise and manage ailing private firms. The rise in unemployment intensified the pressure, already exercised by various party groups, for expanding public employment.<sup>10</sup> In 1982, the number of employees in the civil administration and public forces rose by 11.5% relative to the previous year, while at the end of 1985 it was 32% higher relative to the beginning of the new government term; details are given in Table 3.1. Employment rose also considerably in the wider public sector. Figure 2 shows that employees in mainly-public non-market services, such as administration and health, were increased from 12% to 19% between 1980 and 1991.

## <Figure 2 here>

# 2.3. The 1983 Stabilisation Program (SP83).

The growth rate of output in 1982 was only 0.6% after stagnating in 1981, while GDP inflation fell only slightly to 21% after reaching 23.5% - the peak over the period 1975-1992. Public borrowing was at 7.6% of GDPM, and trade deficit ended up above 11% from 6% in 1980, indicating a major external imbalance. A stabilisation program was introduced in January 1983, in an attempt to control those imbalances by postponing several wage increases, devaluing the currency by a discrete 10% and pledging for more prudent policies in the public sector<sup>11</sup>. At the same time a new legislation was introduced (Law 1262/82) with a plethora of incentives for private investment as a way to awake the dormant investment activity.

The results of the 1983 Stabilisation Program were rather poor, and private investment did not recover. Instead it fell to 11% in 1985, from 13% of GDPF in 1983. Inflation hardly fell to 20.2% in 1983, and continued to be the highest among the EC economies. Activity remained virtually stagnant with a growth rate of 0.4%, while budget and trade deficits continued to widen. The following three reasons can explain the failure of SP83 to harness the internal and external imbalances:

(i) The lack of accompanying measures to tackle the mounting institutional impediments for

<sup>10</sup> An argument for public sector appointments to be selected among party supporters was to achieve a "political balance" in the state administration, and thus compensate for the discrimination practised by the previous government against the supporters of opposition parties.

<sup>11</sup> To restrict the trade union power in the public sector, the socialist government introduced a registered majority requirement for a strike to be legal. Though the measure was never rigorously implemented in practice, it indicates how frequently the government had to make U-turns in order to remedy unwelcome consequences of its own policies.

private sector profitability, mainly labour market rigidities, and tax uncertainty.

(ii) The continuation of several policies aiming to enlarge the welfare system, by extending the recipients of various state grants and transfer payments, and adopting early retirement schemes. Quite simply, such measures meant that budget deficits will continue to widen in the future, thus economic agents had no reason to adjust their expectations.

(iii) The short duration of the program. SP83 was virtually - though not officially - abandoned by the end of the year, and economic policy was geared to the political cycle on the prospect of elections for the European Parliament in 1984 and national elections in 1985.

The two years following the abandonment of SP83 witnessed a new pumping of public expenditure. General government spending rose by 1.8 percentage units of GDPM in 1984, and a further 3.7% in 1985 reaching the level of 43% of economic activity in 1985, compared with less than 31% in 1980. The deterioration of key macroeconomic indicators was so rapid, that the need for another stabilisation program became apparent very soon.

### 2.4. The 1985 Stabilisation Program (SP85)

To finance its persisting deficits the government was increasingly borrowing from abroad. At 1985 foreign debt has risen to USD 12.3 bn, or 24% of GDPM, compared with USD 7.0 bn or 7% of GDPM in 1980. The process of foreign debt accumulation appeared to be unstable, due to the fact that real world interest rates were becoming much higher than domestic growth rates and current account deficits were showing no sign of reversal. Other policy measures, including the reappearance of wage indexation, and the continuing expansion of the public sector, led to a rise in unit labour costs, a loss in competitiveness and the creation of an adverse business climate that seriously discouraged private investment. Before long, the economy was once more stagnant, with a high inflation rate and the deficits widening. After the Socialist party was provided with a new mandate, a Stabilisation Program was called for in October 1985. Its main purpose was the correction of the <u>external</u> imbalance, and the key ingredient a discrete devaluation by 15%, accompanied by a tough incomes policy that ruled out pay rises in either the public or the private sector. It also pledged extensive - though not explicit - cuts in public spending, a rise in revenues through the elimination of tax evasion practices, and the creation of a business climate more conducive to investors. Specific targets for public debt and deficit were not announced.

The program coincided with a number of favourable developments in the world economy, such as

the decline of interest rates, the fall in oil prices and a recovery in economic activity in the major OECD economies. Despite these, the program achieved only part of the announced targets. Real wages fell by 9.5% in 1986 and a further 5.5% in 1987, almost fully reversing the gains<sup>12</sup> in early 1980s. However, this was achieved at the cost of generating distortions in the wage process, as firms - mainly of the public sector - were approving demands not apparently related to pay rises but bearing financial obligations for later periods; e.g. early retirement schemes. Another consequence of the universal freeze of pay rises regardless of developments in productivity, was to make the process of wage negotiations inefficient. The result was the accumulation of pressures for future pay rises by several categories of employees who did not feel any more obliged to link their demands with productivity improvements.

Inflation fell down to less than 13% at the end of 1987, the lower level since 1977, and the improvement of unit labour costs allowed exports to rise from 22% of GDPF in 1985 to 29% in 1987. Total imports fell from 37% of GDPF in 1985 to 35% in 1988, but this was mainly due to the dramatic reduction of oil prices. Non-oil imports actually increased from USD 7.3 bn in 1985 to 10.1 bn in 1987, confirming the hypothesis of very low price elasticity of imported goods in Greece. Private investment in 1988 reached 12.3% of GDPF compared with 11% in 1985, and the economy, after contracting by 0.72% in 1987, grew by 4.5% in 1988, the highest rate since 1978.<sup>13</sup>

However, the increase in private investment was more than matched by the decline of public capital formation which fell from 7.2% of GDPF in 1985 to 4.6% in 1987. As a result, the quality and amount of public infrastructure was diminished, (OECD, 1992). Combined with the continuing institutional rigidities in the labour market, and the shortages in skilled labour force - especially in new technology sectors, the deterioration of public infrastructure was at least partly to be blamed for the private investment not rising considerably any further. On the other hand, government consumption was

<sup>&</sup>lt;sup>12</sup> This development reminded the fate of populist policies in various countries, where expansions of demand designed to reduce incomes inequality but not warranted by economic growth, are bound to be reversed at a social cost that may surpass the initial political gains. For a discussion see Dornbusch, 1990, "Macroeconomic Populism in Latin America".

<sup>&</sup>lt;sup>13</sup> The picture appears to be in agreement with the view that stabilisation programs may have quick expansionary effects, if the private sector is convinced that future budget deficits will be tamed down, and, thus, there is no need to raise savings in order to pay for higher taxes later; (Giavazzi and Pagano, 1990). However, SP85 did not finally achieve a sufficient reduction of public spending, and the private sector did not rule out a future reversal. Kapopoulos (1993) provides an analysis of these developments and concludes that SP85 does not confirm the hypothesis of "expansionary contraction".

barely reduced, revealing the strong influence of pressure groups in the allocation of expenditure. Taxes rose only moderately, mainly through the increase of marginal rates rather than the expansion of the tax base. Thus, deficits continued to be at unsustainable levels, with total public debt exceeding 80% of GDPM in 1988.

Despite the fact that no long-lasting redress of public finances was secured, SP85 was abandoned in March 1988, and the Minister of National Economy chose to resign. The government announced that the austerity period is over, and this was a clear sign that a fiscal expansion was again under way. The socialist party, tarnished by a major bank-embezzlement scandal, had difficulties to secure the prospects for economic recovery, and opted for staging yet another political cycle for the elections in 1989.

## 2.5. The period of instability, 1989-90

In the elections of June 1989 the socialist party lost power, but the conservatives failed to win a clear majority and chose to form a fragile alliance with the communists. Stabilisation policies are known to be particularly difficult to be decided and implemented through party coalitions, because each member tries to avoid the cost falling upon its constituency<sup>14</sup>. This was clearly demonstrated in Greece at that period. Despite the fact that both parties were strongly condemning the previous administration for the rise of public deficits, they were not prepared to take any serious corrective measures. Quite the opposite: one of the first measures adopted by the Conservative-Communist coalition was to drop the penal consequences bearing upon persons with large amounts of government arrears. This was widely - and correctly as it turned to be - interpreted as a signal for relaxing the monitoring of tax collection in the future, thus encouraging further evasion. Another measure was to reduce the import duties for large categories of private cars, which led to a dramatic fall of revenues and widespread abuses of the scheme.

A similar situation continued after the new elections in November 1989, that resulted again in a hang parliament, and parties had now to agree on a government of national unity. The fact that an ex-Governor of the Central Bank was appointed Prime Minister, was initially hailed as a recognition of

<sup>&</sup>lt;sup>14</sup> Roubini and Sachs (1989) stress that " ... the problem of rapid turnover of coalition governments is the inability to secure agreements among partners within a given government". Without imposing any presumption that coalitions are inherently prone to large deficits, their findings appear to suggest that large deficits of multi-party governments do take place in circumstances of highly adverse macroeconomic shocks.

the precarious situation of public finances and the need for immediate and drastic measures to cut spending and raise revenues. Alas, none of them happened. A new tax bill aiming to curb tax evasion, was vetoed by the coalition parties in February 1990 before reaching Parliament, and a stabilisation plan submitted by a non-partisan Committee of senior economists never escaped the realm of thought experiments. At the same time total spending by General Government reached the unprecedented level of 46% of GDPM in 1989 and peaked further to 49% in 1990, while total revenues in 1989 fell behind the figure in 1988 by more than 2 percentage units.

# 2.6. Recent stabilisation policies

A new round of stabilisation measures was adopted by the Conservative Government formed after the elections in April 1990. By that time, public debt was soaring above 95% of GDPM, while budget deficit was skyrocketing at 15%. To face a looming liquidity crisis, the government imposed an emergency tax surcharge, raised the prices of public utilities and cancelled a number of earlyretirement schemes. In the longer-run it pledged to reduce the size of the public sector by cutting a number of services, privatising public corporations, and liquidating the ailing firms under state control.

The Budget submitted to the Parliament at the end of 1990 envisaged extensive cuts in public spending, that would be able to generate a primary surplus of 0.7% of GDPM in 1991, further rising to 5% in 1992 and 1993. The budget was also forecasting substantial contributions from non-tax revenues coming from the proceeds of privatisation; they amounted to no less than Drs 300 bn or about 3% of GDPM. The actual picture turned out to be less optimistic. Primary deficits were reduced in 1991, but not to the extent envisaged in the Budget, and public debt continued to rise; see Table 1. A new stabilisation plan was finally introduced in 1992, that included a heavy increase in petrol tax, the reform of the property tax system, a speed-up of privatisation, and a pledge for a thorough curb of evasion practices.

The factional frictions within the Conservative party and its inability to steer the economy led to early elections in October 1993, in which the socialist party won the office. Despite repeated pledges for the opposite, the conservative government did not manage to resist the temp: ation for a pre-electoral expansion. Thousands of new public employees were hurriedly hired, collection of taxes was virtually abandoned, and public projects were speedily awarded to party sympathisers. A new pre-1981 spree was in stage, albeit for a much shorter period. A characteristic case is that of the Public Power

Corporation (DEH), where 7,000 new and unskilled employees were added to an already large staff of 30,000. Few days later, all the new employees were granted tenure by means of an unexpected and generous collective contract. The company, which had its investment budget to be trimmed in the prospect of privatisation, faces bankruptcy.

The new government has promised that deficit-curbing policies will rely on extending the tax base and rationalising the expenditure, rather than raising the tax rates. The proposal for fiscal adjustment will become clear by the end of November when the 1994 Budget is submitted to Parliament.

# 3. ANALYSIS OF THE BUDGET

## 3.1. Expenditure

Table 2 shows the developments of state finances in the period 1980-91, for the General Government (GG), while spending is shown in detail for the various levels of government in Tables 5.1 to 5.4. Total spending nearly doubled during this period from 30% to 47.8% of GDPM, after reaching its peak of 49% in 1990. Revenues rose too, but to a lesser extent, indicating the difficulty of extending the tax base and monitoring the timely collection of taxes<sup>15</sup>. To finance its widening deficits the government had to borrow, thereby increasing public debt from 29% of GDPM in 1980 - one of the lowest in EC at that time - to the alarming level of 107% in 1992 - the fourth higher burden in EC after Italy, Belgium and Ireland. The peaks in expenditure and the troughs in revenues occurred mainly during the election years 1981, 1985, 1989 and 1990, pointing to the existence of strong political cycles in the Greek economy; recall Figure 1. Interest payments as a ratio to GDPM were also rising rapidly due to the increase in real interest rates and the absence of any serious economic growth in that period.

Table 4 examines general government expenditure by functional classification. The biggest rise during the period in question occurs in civil administration spending which nearly <u>doubled</u> from 5.1% of GDPM in 1980 to 8% in 1990, due to the large increase of public employment, (as has been shown in Table 3.1 and Figure 2). Defence spending remained broadly unchanged as a percent of GDP. Despite the occasional deterioration of relations with Turkey, there has been a substantial reduction in the duration of military service that led to considerable savings. The collapse of the communist regimes would have brought about even further cuts, had it not been for the geopolitical uncertainty following the crisis in ex-Yugoslavia.

Similarly, spending for the Justice Department has been kept low, but is likely to rise in the future reflecting high pay rises awarded to judges in 1992, and the mounting pressure for modernisation of the antiquated correction facilities in Greece.

The cost of health has risen by no more 1% of GDPM, and this mainly because of the geographical expansion of medical care system in mid 1980s. However, the figure grossly underestimates the cost

<sup>&</sup>lt;sup>15</sup> Figures shown in Table 2 for total revenues tend to overestimate the proceeds actually collected by the state, since they include part of the transfers to the Government by EC and other international institutions.

of health care in Greece, since the quality and adequacy of public services often results to seeking medical treatment in private hospitals or abroad, a substantial part of which is covered by the state.

Social security expenditure has been almost doubled, from 7.7% in 1980 to 13% in 1990, reflecting both an enlargement in the number of recipients and a rise in the size of the benefits; details are given in Table 6. Specifically, during the period of the socialist government the following expansionary measures were implemented:

(i) A rise in pensions in 1982, following the rise in wages.

(ii) The number of pensioners increased dramatically after 1983, due to the introduction of a lower retirement threshold (23 years for men, 17 for women), the admission of war and resistance fighters into full-scale or partial pension schemes, and the registration of Greek refugees repatriated from Eastern bloc countries into full-pension compensation, without transferring their contributions in those countries to the National Insurance System in Greece. Figures for public sector pensioners are shown in Table 3.2. In 1989, pensions were granted to a large number of persons, mainly from the agriculture sector, making the number of pensioners to rise by almost 20% in that year. Most of these pensions were cancelled in 1991 and the number of pensioners returned to its previous trend.

(iii) New welfare grants were made available to support youth holiday schemes, recreation facilities for the old-aged, nurseries etc.

(iv) Finally, unemployment benefits increased considerably due to both the slackening of economic activity and the extension of eligibility. Thus, benefits rose from 0.32% of GDPM in 1980 to 0.82% in 1991.

Expenditure for education rose moderately from 2.2% of GDPM to 3.3% in 1991, reflecting the expansion of school buildings and the creation of new universities during this period. However, in per capita terms expenditure for education has deteriorated markedly, since the rise of students and faculty has risen more than equiproportionally. For example, the average salary of a tenured university professor has fallen in real terms by more than 50% between 1983 and 1992, while similar trends apply for other categories. This implies that expenditure for education is difficult to be squeezed, and is likely to rise considerably in the future.

## 3.2. Revenues

Total receipts by General Government have risen from 33% of GDPM in 1980 to 44% in 1991, as indicated in Table 7.1. Revenues by the different levels of government are shown in Tables 7.2 to 7.4. However, a substantial part of this rise is due to the increase of transfers. Leaving this item aside,

revenues of GG rose only modestly from 31 to 37% of GDPM (i.e. only by one fifth), that was no match to the expansion of spending discussed in the preceding paragraph. The major contributor to raising revenues was the indirect taxes (increased by more than 4% of GDPM), after the introduction of the VAT system in Greece in 1987. The other part of indirect taxes due to import duties declined from 3% in 1980 to around 1% in 1991, after rising to 4.5% in mid 1980s. The fall is a consequence of the removal of several tariffs in the process of implementing the Single European Market directives after 1987. VAT replaced most of stamp duties, turnover taxies, regulatory taxes for business activity, and a number of excises.<sup>16</sup>

Direct taxes in general increased by 2.8% of GDPM, mainly through a higher taxation on household income, and the rise in Social Insurance contributions as shown in Table 7.3. Corporate taxation rose by only 0.5%, due to both a general decline in profitability and the ludicrous tax schemes aimed to attract the reluctant investor. It is worth observing that average tax rates on households and private firms during the election years 1981, 85 and 89 were invariably falling behind the respective figures in the preceding year. This suggests that government was offering tax reductions or overlooking collection as a way to increase spending power of voters or special interest groups.

Taxation on property remained at very low levels during the period, averaging around 0.5% of GDPM. Property tax is one of the politically most sensitive issues in Greece, generating fierce reaction from various groups whenever attempts are made to raise it. Lobbies range from the builders' guild to the associations of apartment owners and the union of civil engineers, who try to portray rises in property tax as harmful to investment activity in dwellings. In a unique incident, a property tax legislation has been announced in 1982 by the Minister of Finance and days later was abolished. In 1992, a new law passed by the Conservative government but is expected to generate extra proceeds of no more than 0.4% of GDPM. Finally, it is remarkable that income from the entrepreneurial activity of government has declined as a ratio to GDP, due to the lack of indexation in the provision of some public services, and the fact that much of the state property is rented to private users on the basis of old contracts which are rarely renegotiated.

<sup>&</sup>lt;sup>16</sup> A feature of the pre-1987 indirect taxes was that they were cumulative, imposed on more than one stages of production without accounting of the preceding taxation. Georgakopoulos (1992) argues that such a structure encouraged vertical integration of firms, and perhaps led to misallocation of resources. Regarding duties, the pre-1987 regime was based on the notional rise of the taxable base of imports by as much as 3 or 4 times their market value. The result was a heavy differentiation in favour of domestic production (ibid).

Revenues collected by Local Authorities (LA) are always below 1% of GDPM (see Table 7.4), due to the fact that LA in Greece is entitled of collecting only minor charges on municipal services, (e.g. trash collection). Currently, there is a debate on whether LA should levy the property tax in its municipality, and then use it to finance part of the local expenditure. However, several LA representatives are opposing the proposal fearing that it will make them unpopular with the electorate.

Table 7.5 shows the revenues of Public Enterprises (PE). Income from entrepreneurship is falling as a ratio to output, despite the increase in the size of PE (see Table 5.4), and the volume of services provided. The main reason is that services of PE are deliberately underpriced as a means both to control inflation and to subsidise private consumption of public services. For example, during 1981-85, the real fall in the PE prices was 17.5% for the Electricity Company, 34% for the Olympic Airways and the Post Office, and 23% for the Railways; see OECD (1987).

# 3.3. Features of the tax system

In Greece, the tax system is changing frequently and includes so many distortions that seriously undermines incentives for (declared) economic activity. The main adverse characteristics of the Greek tax system are the existence of fiscal dividend, the inefficient collection mechanism, the laxity of enforcement, and the discretionary emergency payments whenever the state finances look frail. We examine them in turn.

As in many other countries, marginal tax rates in Greece are not indexed. With a high inflation rate nominal income rises and, with the progressive tax structure unadjusted, it bears higher taxation. Thus, authorities hope that the lack of indexation will lead to higher tax revenues without the administrative and political cost of explicitly raising the tax rates. There are, however, two opposing factors that tend to reduce, and in some cases reverse, the actual fiscal dividend. One reason is that fiscal drag multiplies the incentives for tax evasion and, as a result, the tax base is gradually diminished. The economy may end up in the falling side of the Laffer-curve and, despite the higher tax rates on real income, real tax revenues are not increasing. Although concrete evidence on this phenomenon is hard to produce, there are reasons to believe that the persisting inflation during the last 15 years is, at least partly, to be blamed for the spread of undeclared economic activity in Greece.

The second is the so called "Tanzi-effect" that is found in inflationary economies with long delays in

tax collection; see Tanzi (1978). When tax obligations are not indexed and there is a lag between the acquisition of taxable income and actual collection of taxes, a higher inflation rate reduces the real value of state revenues. When inflation rate is sufficiently high, the erosion of real tax revenues may be very important, and even override the gains from seigniorage and other forms of inflation tax.

Both direct and indirect taxes in Greece are collected after long delays. For direct taxes the lag is due to the long period between the end of the financial year and the time of tax evaluation and collection. Tax statements are submitted in the beginning of March for the previous calendar year and tax obligations are acknowledged at the end of May - at best. Payments are then scheduled through the rest of the year, but for several cases they are not collected in time. Disputes with tax authorities usually take a long time to settle, and it is not unusual for the authorities to settle at concessionary levels in order to avoid complete repudiation. In early 1990 there were unresolved cases involving as much as Drs 500 bn (about 5 percent of GDPM). The situation is similar regarding indirect taxes. Payments of Value Added Tax are deliberately delayed by firms which use it widely as a substitute for working capital, by taking advantage of the lax monitoring system. In 1989 the Minister of Finance stated that more than Drs 300 bn were overdue (about 3 percent of output), and that many enterprises were unable to repay their obligations simply because they had invested a large part of the VAT proceeds elsewhere. For indirect taxes, the official period for repayment is two months, so that lags are shorter than for direct tax collection.

The situation is aggravated in election times when incumbent parties tend to write off part of the disputed claims, and deliberately delay the clearing of others. This has wider repercussions on revenues, as it provides incentives for further evasion and increases administrative cost of future tax collection. Christodoulakis (1993c) has established that in the presence of inflation the real erosion of tax revenues due to collection delays is not fully compensated by the benefits of stemming from fiscal drag or seigniorage, and found that total revenues will rise by a fall in inflation down to the range of 5% per annum. Recently, authorities started a new plan to curb tax evasion, minimise collection lags, and reduce fiscal drag. They have also promised that the tax system will not change in either direction, in the event of new strains in the budget or for electoral purposes.

# 3.4. Debt dynamics and sustainability

To analyze the sustainability of public debt one should look to a number of factors and indicators. If the government continuously runs budget deficits, the debt to output ratio is going to be explosive as long as real interest rates paid on debt exceed the growth rate of output. In that case, the

government has to ensure that primary surpluses will be accumulated in the future, in order to compensate for the rising interest payments. When the real interest rate is below the real growth rate, public debt is again increasing by the size of budget deficits, but now is not becoming explosive. However, if deficits show a tendency to rise, so will the steady-state public debt, and the dynamics in this case are not distinguishable from the explosive case.

# <Figure 3 here>

Such textbook remarks, are highly relevant for the accumulation of public debt in Greece. The main question relates to whether public debt has reached the present alarming levels because of the rise of real interest rates, or was a consequence of profligate public finances. In Figure 3, the real interest rate on 12-month Treasury bills is plotted together with the output growth rate. Their difference determines the net rate of accumulation of public debt. Clearly, this rate was negative until 1985, implying that real interest payments were declining as a ratio to output due to the faster rise of the latter. After 1985 it turned positive due to the continuing rise in the real cost of borrowing, and the low growth rates in that period. With the exception of 1988 and 1989 the net rate of accumulation remains positive for the rest of the period, implying explosive dynamics as long as budget surpluses are not realised. However, it will be wrong to deduce from the above fact that the problem of explosive debt accumulation appeared only after 1985. A better assessment is obtained by looking at various indicators of debt sustainability, the construction of which is described below. The analysis of such indicators reveals that budget deficits rather than accumulation rates should be held responsible for the steep rise in debt, and that sustainability was a problem as early as 1981. Debt as a ratio to output accumulates according to the well-known equation

 $b-b_{1} = (r-n)b_{1} + g - t$ 

where b, g, and t denote debt, spending and revenues<sup>17</sup> as ratios to output, r is the real interest rate, n the growth rate of output, and subscripts denotes time periods relative to the current one. The net rate of accumulation is (r-n), while (g-t) expresses the primary deficit. Indices of sustainability<sup>18</sup>

<sup>&</sup>lt;sup>17</sup> Revenues can be augmented to include seigniorage. This is estimated for Greece to be around 2% of GDPM (Alogoskoufis and Christodoulakis, 1992) and, since it is substantially lower than deficits, its inclusion does not subtantially alter the results.

<sup>&</sup>lt;sup>18</sup> Sustainability in the strong sense is defined as the condition that debt as a ratio to output reaches a finite steady-state value, that is  $b = b_{11}$ . A weaker notion of sustainability only requires that b does not increase faster than the accumulation rate, thus the transversality condition lim  $(1 + r-n)^{-1}$ 

can be obtained by measuring how far the right-hand-side of the accumulation equation is away from zero. The following alternative measures of this gap are readily defined, in a way similar to that described in Blanchard (1993):

$$GAP1 = (r-n)b_{.1} + g-t$$
  
 $GAP2 = (r^{H}-n^{H})b_{.1} + g-t$   
 $GAP3 = (r-n)b_{.1} + g^{F}-t^{F}$ 

where superscripts H and F stand for historical and forecasted three-year averages respectively. The first measure is the so-called primary gap and assumes that current rates and deficits will continue. The second is an average gap and considers that in the future the rates of interest and growth will evolve around their historical averages. The third is the medium term gap that takes into account plausible developments of deficits<sup>19</sup>. Observe that each of the above measures can be written as

$$GAPj = t_j^* - t = g - g_j^*$$

for j = 1,2,3, where starred variables denote the level of taxes or spending respectively that would allow for the debt to reach a finite steady state, under the alternative three assumptions. Thus these measures indicate the extent of fiscal correction that has to be applied each year to ensure strong sustainability of public debt.

# <Figure 4 here>

In Figure 4, we plot GAP1 for the period 1980-92 together with the primary deficit (g-t). It becomes obvious that sustainability was a problem as early as 1981, in the sense that to keep public debt at a constant ratio to output required a considerable degree of fiscal correction. The gap somewhat eased during the periods 1983-84 and 1987-88, while it was becoming particularly acute in the

 ${}^{s}b_{s}=0$  is satisfied for time index s going to infinity.

<sup>19</sup> In the present study, the average of actual deficits in the current and two following periods is used as a proxy of future deficits; for the years 1991 and 1992 expected deficits are obtained by averaging current ones with the official assumptions of the budget.

election years. In 1992 the primary gap was still between 2 and 3% of GDP, indicating that further correction is still required to stabilise the debt.

A second finding can be established by correlating the primary gap with the primary deficit. From the graph, it is clear that these two are closely related, at least until 1990, implying that primary deficits were the main cause of the sustainability gap. More formally, the primary gap found to have a correlation coefficient of 0.58 with the primary deficit and only 0.18 with the interest payments term, thus reinforcing the previous assertion. After 1990, primary deficits have come to very low levels, and it was the interest payments that mainly determined the gap.

### <Figure 5 here>

The picture does not substantially change by looking at the other two indicators, GAP2 and GAP3. By examining Figure 5, one can see that in average GAP2 is found to be lower, and GAP3 higher, than the primary gap, reflecting the developments in real interest rates and growth rates. Nevertheless, all measures suggest that debt sustainability was a problem for the whole period after 1981, while GAP3 reveals that it became a problem in 1980. All of them show that the pressure has been somewhat eased after 1989, though it still remains away from vanishing<sup>20</sup>. Of course, fiscal correction should be more far reaching in order to reduce the debt-to-output ratio to levels acceptable by the Maastricht Treaty. This issue is analyzed in Section 5, in conjunction with the examination of the Stabilisation-Convergence Plan currently implemented.

<sup>20</sup> That public debt in Greece was no longer sustainable has been shown by Alogoskoufis and Christodoulakis (1990). Calibrating a neoclassical open economy model for Greece, they evaluate the size of surpluses that have to be realised in order to stabilise the debt under alternative assumptions about growth and real interest rates.

## 5. BUDGETING PROCEDURES

The process of planning the Budget in Greece does not follow any detailed legislative framework. Thus, the actual outcome heavily depends on the relative power of each minister within the party and the government. To give a description of the budgeting process, it is helpful to describe the steps of formulating the Budget and submitting it to Parliament, and then discuss some institutional features of the process.

### 5.1. Planning the Budget

Around July-August each year the Minister of Finance asks the Financial Departments of all Ministries to formulate and submit their budget proposals for the next financial year. Usually there are no limits or explicit rules at this stage, though it is widely understood that ministries have to refrain from increases over the rate of inflation. The usual practice is to apply the so-called "incremental" approach, according to which previous expenditures are taken for granted, and the main aim of the ministry is to add new spending categories.

After the proposals of each Ministry are collected, they proceed through the General State Accounts Office (henceforth GSAO, the Greek term is Genikon Logistirion), and are examined in conjunction with the general guidelines issued by the Ministry of Finance, presumably in cooperation with the Ministry of National Economy. General guidelines from the latter are formulated by taking into account the overall state of the economy and the targets of economic policy. The guidelines are extensively discussed and authorised by the Governmental Committee (a kind of inner cabinet) that replaced the once powerful Governmental Council since 1990.

When aggregate ministerial proposals violate the constraints communicated by the Ministry of Finance, a round of bids and negotiations starts between the former and the latter. It is worth noting that the ultimate arbitrator during this process is frequently the minister of National Economy, not the minister of Finance. The latter is responsible for the specialisation of budgetary activities and their implementation, but is not invested with the power to set the general framework. (The distinction, however, is not very important, since it is often the case for the two ministries to be headed by the same person). The ultimate arbitrator is the Prime Minister, who intervenes when an agreement between the Finance Minister and the other interested parties cannot be reached. It is important to note that the arbitration process is not governed by formal rules or an explicit evaluation procedure regarding the economic impact of each proposal. Thus, the balance of political power inside and

outside the government is the most crucial determinant of the final outcome.

# 5.2. Deviations

Officially the Budget Act authorises the expenditure items for the next financial year. However, the cost is frequently underestimated (either accidentally, or deliberately to make room for prescribing a higher volume of purchases) and this results to further financial commitments for later years.

It is often the case that the Ministry of Finance appears very optimistic about the extent of future rises in revenues, and this is used as an excuse not to pursue drastic cuts in expenditure. When revenue forecasts start to be revised downwards, it is too late to compensate with symmetric revisions of spending. In such cases the government usually opts for emergency measures, involving tax surcharges (as in 1989 and 1990), raising indirect taxes on goods with inelastic demand (as in 1992, with the petrol tax), or postponing - though not officially cancelling - the implementation of specific spending obligations.

The planning of the Greek Budget is not based on deciding the expenditures according to the revenues that a given tax system is expected to yield. Rather, it is the revenues which are planned in such a way as to conform with the spending requirements decided for the following financial year. Provopoulos and Zambaras (1992) conducted Granger-causality tests between spending and taxes and were able to show that causation goes from the former to the latter, and not vice-versa. Such a behaviour is frequently accompanied by two wishful-thinking assumptions on the functioning of the Greek economy. The first is a very primitive interpretation of Keynesianism, according to which a rise in expenditure is bound to augment activity and increase taxable income<sup>21</sup>. The second assumption is that the income elasticities of taxes exceed unity, thus a rise in activity will increase revenues as a ratio to output.

The combination of the above assumptions can perhaps explain the optimism of Finance ministers regarding the rise in revenues, and, failing this, the frequently observed deviations between planned amounts and actual outcomes. Deviations between forecasted and actual spending and revenues are shown in Figure 6. During the period 1981-93 there has been an average annual excess of net

<sup>&</sup>lt;sup>21</sup> It is, perhaps, not a mere coincidence that the majority of macroeconometric models used in the past for various types of policy analysis and forecasting of the Greek economy are characterised by strong multiplier effects; for a survey of those models see Christodoulakis (1993a).

public spending by 1.4% of the planned amount, and an average shortfall of 6.2% of expected revenues. Once more, one can confirm that deficit-augmenting deviations reached their peaks during the election or pre-election periods 1981, 1985, 1988-89 and 1993. The figure also reveals that downward revenue deviations are more systematic than upard ones in expenditure. There has been only one year (1986) during which actual revenues exceeded, and only two years (1984 and 1992) in which they nearly reached the planned amounts. However, in 1992 this was achieved by the emergengy indirect taxes on petrol, otherwise the shortfall would have been of record proportions.

# <Figure 6 here>

# 5.3. Public investment

The Program of Public Investment is separately formulated and implemented by the Ministry of National Economy, not the Ministry of Finance. This perhaps can explain the fact that deviations of this budget are in general very low, since the Ministry of National Economy is more concerned with the performance of the economy as a whole and has therefore stronger incentives to stick with the designed policies. On the other hand, the separate responsibility of the two budgets sometimes creates serious distortions in government expenditure. This happens when unforeseen expenditures are decided by the Ministry of Finance without symmetrically adjusting other items in the Budget. In such a case the Ministry of National Economy may opt for a downward adjustment of the Public Investment Programme in order to compensate for the rise in public consumption. This seems to have happened during the stabilisation program 1985-88, during which public investment was reduced (see Table 1) in order to accommodate for the fact that government consumption was hard to get down.

## 5.4. Voting on the Budget

The Parliamentary Committee scrutinizes the Budget Plan that is submitted by the minister of Finance and gives an early vote on it. During this process, opposition parties submit their own proposals (or mere "views") on the plan which are classified as accompanying documents, and are subsequently submitted to Parliament together with the Government Budget.

The approval of the Budget is considered as of quintessential importance for the government to remain in office, and this leads to a situation where the vote on the budget is interpreted as a confidence vote on the whole range of government policies. Given that, it is no surprise that in the post-1974 period there has been no rejection of the Budget in Parliament since members of the

ruling majority are effectively lined-up by party whips to support the government. A similar lining-up procedure applies for opposition parties, who routinely vote against the Government Budget. (The only exception is the Defence Budget which is usually approved by the vast majority of Parliament as a gesture of national unity over external threats). During the debate in Parliament, MPs have the right to submit proposals or modifications to the original plan, but it is common practice such amendments to be rejected during this stage.

### 5.5. Pressure groups

The most crucial, and yet least traceable, issue of the budgetary procedure is the way that pressure groups find their way to achieve the channelling of public spending to their preferred directions. Special interests are traditionally organised around ministries (mainly interests of a corporatist character) and MPs (mainly those of a regional nature). In special cases, however, they may get access to the highest level of decision making, such as the Governmental Committee, the Prime Minister's Office, or even all of the party leaders. (In 1990, for example, the decision to defer a large amount of debt of a football club was first taken at the <u>ad hoc</u> Council of Party Leaders, and then implemented by the minister of Finance).

Access to ministers is more important in the preparatory phase and during the negotiations between the minister of Finance and the rest. Access to MPs may prove crucial especially in cases of efficient log-rolling. Naturally, the most powerful influence can be exercised by direct access to the minister of Finance, the minister of National Economy, and ultimately to the Prime Minister. Sometimes logrolling practices are successfully applied between MPs of different parties, especially regarding regional or corporatist interests which are not exclusively identified with party preferences.

#### 5.6. Missing rules

It may have become clear by now, that the design, approval and actual implementation of the Budget does not follow any systematic and explicitly laid-out procedure for evaluating the impact of, and the interaction between, the various budget categories, the periodic re-consideration of past decisions, and institutional contraints on pre-electoral deficit-making policies. A non-exhaustive list of rules that are currently lacking, and their introduction could lead to a more rational fiscal process in Greece, is the following:

(i) There is no institutional framework in which the economic impact of modifications or new proposals can be evaluated by experts' committees.

(ii) There is no explicit constraint enforcing that modifications for higher spending in one category is fully matched by a proposed cut in expenditure elsewhere (or a rise in revenues). The lack of such a symmetry rule increases the pressure for more expenditure by various and heterogeneous groups. Group coalitions to jointly exercise pressure are easily formed, since each of them does not have to argue against the interests of another group.

(iii) The GSAO has the legal power to grant permission for upward deviations of expenditure by <u>ad hoc</u> decisions, without previous evaluation.

(iv) There is no system to reward ministries or government agencies which ensure that their budget remains within the prescribed limits during the financial year. Nor is there a mechanism to index past deviations by each ministry or organisation and use them as an (adverse) indicator during the process of negotiations with the Ministry of Finance. Therefore, ministries are not encouraged to be far-sighted and put their demands in some intertemporal framework. Usually they only try to maximise their spending power in each particular period, in a typical myopic budget-maximising behaviour. All the more, each ministry tends to inflate its requests so that, when the opportunity arises, it can produce a case for violating the budget and expand spending.

(v) Lacking is also a system of indexing the achievement of revenue targets by various tax departments and individual tax collectors. This does not foster incentives and creates room for ministerial intervention in the conduct of revenue collection. For example, it is not unusual in preelection periods for tax departments to get informal recommendations by their supervisors to show more tolerance (or even neglect) towards the collection of arrears and the imposition of fines.

(vi) There is no periodic evaluation of major expenditure items. Once a spending category is approved, it tends to be taken for granted in the future, even when the situation changes drastically from the state under which the initial decision was taken.

(vii) There is no institutional restraint for deficit-enhancing policies in the pre-election period, especially when the party in office is not likely to be re-elected. Lack of fiscal responsibility before the elections necessitates tough stabilisation measures by the new government, which then trim its

popularity and provide the excuse for yet another pre-election expansion.

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## 5. THE PROSPECTS OF FISCAL CORRECTION IN GREECE

The government elected in October 1993 has fully endorsed the provisions of the Maastricht Treaty (MT), and so have the main opposition parties. It is only in the political margin where one can find open disagreement with this orientation. As a consequence, there seems to exist a general consensus for the medium run macroeconomic targets, whatever the differences among parties and policy-makers on how to achieve them. No doubt, EC membership is considered as one the most salient characteristics of economic and political life in Greece, and it is unthinkable that it will be put in jeopardy by a Greek initiative. Given that the MT is - to the spirit if not to the letter - irreversible, macroeconomic policy in Greece will sooner or later be planned to achieving convergence towards the other EC countries.

The success of such an endeavour depends on a number of factors, both within and outside the grasp of policy makers. To give a flavour of plausible developments, the path of public debt is analysed under alternative assumptions regarding the growth rates, the extent of fiscal adjustemnt, and the level of real interest rates. Three highly schematic scenaria are examined in turn. In the benchmark case, output is assumed to grow at a rate of 2% per annum, real interest rates are around 4%, and the government achieves a primary surplus of 3% of GDPM<sup>22</sup>. These figures are close to the projections and targets currently discussed in Greece, though a clearer picture will emerge after the approval of the Budget by the end of 1993. In a more pessimistic outcome, real interest rates will rise to 6%, while authorities will only manage to keep the primary expenses at balance with revenues. In an optimistic turn of events, the economy is considered to grow at 3% per annum, primary surpluses will be 5% of GDPM and real interest rates will not exceed 4% per annum. The evolution of debt is obtained via equation (1) for the period 1994-99. (Further details on the simulation are available by the author). Below we examine the assumptions under which each scenario may be realised, and the consequences it has on public debt as portrayed in Figure 7.

<Figure 7 here>

# 6.1. The benchmark case.

The benchmark scenario assumes that no major change occurs in the economic, social or political environment. A number of additional assumptions, such as the following.

<sup>22</sup> This surplus can be achieved by, for example, increasing revenues to 41% of GDPM, stabilising expenditure net of interest payments a: 34%, and keeping public fixed capital formation around 4%. Other combinations are also possible.

(i) The government succeeds in the fiscal correction involving both a considerable rise in tax revenues and an extensive rationalisation of spending along the lines suggested elsewhere in the paper.

(ii) Privatisation program is slowed-down but not dramatically abandoned, and by the end of the decade large parts of non-strategic state enterprises pass to the private sector. Sale proceeds are used to repay public debt, and at the same time budget deficit is reduced as the state will be relieved from covering the operational losses of many ailing firms.

(iii) Medium economic growth. The implementation of a mild fiscal austerity in order to achieve a steady primary surplus of 3% will perpetuate the contraction of aggregate demand. The beneficial effects in the business environment will definitely lead to higher investment, but this will take time. Therefore, supply is not going to be immediately improved and, as a result, economic growth will remain at a rather low rate for a considerable period of time. A projected rate of 2% per annum seems to be the most realistic estimate for the years up to 2000.

Under the above assumptions, the debt to output ratio will virtually stabilise not much lower than the current level, although the risk of uncontrollable developments will be removed. Greece will be able to negotiate entry to EMU only if the fiscal requirements of MT are considerably relaxed in the future.

### 6.2. The worst-case scenario

Things, however, may turn sour if deficits continue to be unsustainable and, consequently, debt will not even stabilise as a ratio to output. The following reasons are likely lead to such an outcome:

(i) European and municipal elections in 1994 and a possible stalemate in the presidential elections due for 1995 may, in the absence of institutional restrictions, jeopardise the stabilisation program.

(ii) Borrowing rates will show a tendency to go up, as a consequence of the rise in public debt or some other exogenous factor.

Even assuming that growth rate is not going to be lower than 2% per annum, debt as a ratio to output is going to rise explosively. Government will then be forced to more radical policies, or face the prospect of failing to join the process of European Integration.

### 6.3. The optimistic scenario

A combination of favourable domestic and geopolitical factors may lead to high economic growth in Greece. The key assumption is that the growth rate will reach 3% per annum in average,

exceeding the forecasted EC growth rate for the next years by more than one percent. High growth rates require that a number of medium-term targets are achieved and some critical conditions are satisfied:

(i) A thorough Stabilisation Program is succesfully carried out in 1994-99, so that primary surpluses as much as 5% of GDPM are realised.

(ii) The decline of public deficit makes room for infrastructure investment and improvement of human capital, additional to that envisaged by the second Community Support Framework. Since the allocation of CSF funds will be strongly conditional on the progress of the economic performance of each country, succesful stabilisation and growth will be mutually reinforced.

(iii) Private investment thrives as the institutional framework is stabilised, interest rates decline, lending to the state becomes less attractive to investors, and financial uncertainty due to soaring public debt is eliminated.

(iv) Greece acquires a major economic role in the region, by untertaking investment in the Balkan countries and emerging as the regional centre for financial markets and banking services. This requires a smooth transition to the post-communist era in the Balkans and the end of present conflicts and tensions in the area.

Under the above favourable events, public debt will decline to 90% of GDPM by 1999, and the prospects of Greece joining EMU become sanguine. Although still away from the Maastricht target of 60%, the speed of progress may be found satisfactory and Greece will certainly achieve a more tolerant examination of its debt position.

5.4. Deficit-reducing measures

In this section we draw some judgement on which budget items are more likely to contribute to budget consolidation. To form such judgements, we combine qualitative information on the possibility of reducing (increasing) certain expenditure (revenue) categories together with some notions of flexibility of those items. Flexibility is measured in two ways: First, by studying the behaviour of budget categories along the business cycle to assess their variability in relation to economic fluctuations. Second, by estimating short and long run elasticities of those items with respect to output to assess their response to changes in output brought about by different levels of growth.

There are two alternative hypotheses to be investigated in the business cycle context. One is that public expenditure and revenues are positively correlated with national income, and the higher the economic activity the larger the state provisions on welfare-system and other public goods supplied

by the government. The reasoning holds that in good times the government finds it easier to finance such expenditures from the taxation it levies on the higher level of output. In this case, one would expect public expenditure to rise in periods of economic peaks and decline during recessions. The alternative hypothesis lies with the Keynesian view that demand-push policies are engineered by a government during recessions, in order to raise the level of economic activity. During peaks, resources are overutilised and the government should try to reduce aggregate demand in order to ease inflationary pressures in the economy. In this case, fiscal policy is said to be counter-cyclical with economic activity.

Details of the analysis are given in Appendix B for the major components of spending and revenues, and Table A1 displays the correlation of their cyclical component with that of output. The conclusion is that most of the state revenues such as taxes, insurance contributions and income of Public Enterprises move procyclically with output and are characterised by considerable volatility. The wage bills of various state sectors move along with general economic activity and seem to vary little during the cycle. In contrast, expenditures by the welfare system are found to be the main anticyclical instrument, and show strong variation over the last years.

Further quantitative information on the extent of change in spending and revenue items may come from their elasticities with respect to economic activity. They are obtained by estimating cointegrated equations, details of which are given in Appendix C. Short and long run elasticities are then shown in Table A2.

Utilising the quantitative information of Tables A1 and A2, and relying on the experience of budget developments in Greece during the last decade we form Tables 8 and 9 for plausible revenueincreasing and expenditure-reducing measures respectively. Regarding the former, deficit consolidation will be helped by mainly curbing income tax evasion especially for professionals and self-employed, raising the property tax, and curbing the widespread practices of withholding VAT payments. The latter can be mainly achieved by rationalising spending on functions such as military expenditure, the public sector wage bill, interest payment restructuring and curbing the abuses in the welfare system. Further measures should be taken to enforce hard budget constraints on Public Enterprises, the operational deficits of which up to now impose a severe burden on the public finances. Measures to this direction should include:

(i) Introducing competition by other public or private firms, and using productivity differentials between the various firms in performance-linked pay awards.

(ii) Partial privatisation of public monopolies by widespread owenrship that will increase pressure for improved performance.

(iii) Separation of public ownership from management control.

(iv) Specification of budget contributions to Public Enterprises without the legal possibility of extensions during the financial year.

Tables 10 and 11 summarise the major revenue-increasing and spending-reducing measures actually implemented during the period 1980-92. It is easily noticed that the former was mainly attempted by rises in the tax rates, while the former by lowering real wages in the public sector. Both of these policies have reached their limits, and in the future the consolidation of the budget should rely on different policies.

## 7. SUMMARY

The paper sought to describe the main categories of government expenditure and revenues in Greece for the period 1980-92. The analysis included the main macroeconomic developments during that period, with special emphasis given in the deteriorating path of public finances and the accompanying stabilisation measures. The main findings can be summarised as follows:

(i) There is strong evidence of political budget cycles in Greece, demonstrated by the large expansions of government consumption and reduction of taxation before the elections.

(ii) The exceptionally high rise of general government spending and the associated enlargement of public sector did not seem to have helped to boost the economic activity. One of the reasons is that expenditure was largely directed to consumption and transfer payments, at the expense of public investment.

(iii) The main contribution to the rise in expenditure was from the wage bill and the expansion of the welfare system in Greece. Transfers to Public Enterprises and Local Authorities were also substantial. Interest payments became much of a problem after 1986 following the rise in real interest rates. However, the main factor of debt accumulation was the primary deficit, at least until 1991.

(iv) Regarding the flexibility and the cyclicallity of various expenditure items, the analysis established that wages are rather inflexible and procyclical with general economic activity. The main device of anticyclical policy has been the expenditure of the welfare system.

(v) The budgeting procedure appears to lack an institutional framework of evaluating the economic impact, distortions and welfare implications of various decisions. Political interference is crucial in determining the size and the allocation of spending and revenues.

(vi) Finally, both expenditure and taxation are determined through highly centralised and unidentifiable processes. This deprives Local Authorities, Public Enterprises, and the Social Security of forming their own plans of expenditure and revenues, and being responsible for their implementation. The present system, by not obeying separate budget constraints at each level of centralisation, encourages short-run behaviour within the state, increases bureaucratic involvement
in the allocation of resources, and reduces efficiency.

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## Appendix A: DATA SERIES

Most of the data used in this study come from the latest edition of National Accounts published in 1992. Data for the Budget are also published by the Ministry of National Economy, and by the Bank of Greece Statistical Bulletin. However, the latter two sources contain data on an accrual basis, and are not necessarily classified in the same way as in the National Accounts. Since the main aim of this study is to assess the economic impact of the budget, we opted for the National Accounts data which are classified according to the <u>final</u> use of the budget item.

In some cases data were obtained from other sources, appropriately stated.

Throughout the paper, expenditure, revenues, deficits and public debt have been expressed as ratios to GDP in Market Prices (GDPM), as is the convention with the data used by the European Community. However, some other variables such as growth rates, investment, capital stock, etc, are more commonly expressed by using the Gross Domestic Product in Factor Cost (GDPF) as a more representative measure of the economic activity in the country. Since this is somewhat lower than GDP in Market Prices, our figures will tend to be a little higher than those reported by other studies where the latter measure of output is used. The distinction is made in the text, whenever this is crucial to the argument.

## Appendix B: THE BEHAVIOUR OF THE BUDGET OVER THE BUSINESS CYCLE

To investigate whether various budget categories move procyclically or countercyclically with the overall economic activity, the data series for major spending and revenue items expressed in real log-terms have been detrended by using the Hodrick-Prescott methodology, commonly employed in business cycles studies.<sup>23</sup> The deviation from the stochastic trend is treated as the cyclical component of the variable in question, and is correlated with various lags of the cyclical component of output - here measured as the Gross Domestic Product.

Since the cyclical component turns out to be stationary, its standard deviation can be used to provide a measure of the volatility of the variable in percentage terms. Comparison with the percentage volatility of output provides a measure of the (cyclical) elasticity of the variable over the

<sup>23</sup> For a detailed description of the detrending procedure and the analysis of business cycles in Greece in the context of EC economies, see Christodoulakis <u>et alia</u>, 1993.

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business cycle, and this will be useful when later we consider the flexibility of various spending and revenues categories. The results are reported in Table A1. They have been obtained by filtering the data over 1975-91 thus covering a longer period than examined in this report. This was dictated by the need to allow for a larger sample in the decomposition of the series into trend and cyclical component.

Output was found to have a volatility of 2.14% over the cycle, very close to the output volatility in other EC countries reported in Christodoulakis et al (1993). Output fluctuations persist for no more than a year, as shown by the correlation coefficient being strong in the first period and rapidly decaying afterwards. The cyclical behaviour of the main budgetary variables relative to GDPM fluctuations is described as follows:

## (i) General Government (GG)

General government expenditure appears to have a lower volatility (1.80%) than output, revealing a major inflexibility in adjusting over the cycle. The highest correlation coefficient (0.48) is found for the contemporaneous term, suggesting that GG spending is procyclical and in the same phase with output.

However, the breakdown of expenditure into various components reveals a more complex pattern. Expenditure on wages in the public sector appears to be a little more volatile than output, and highly procyclical, suggesting a case for the first hypothesis. (In Figure 8, the cyclical component of GG wage bill is plotted). In good times, state employees see their income to rise, while in recessions or under stabilisation measures are usually accompanied by a freeze on public sector wages and the number of personnel.

### < Figure 8 here>

Non-wage expenditure, that includes transfer payments and subsidies, is almost three times as volatile as output, and moves countercyclically with it. The peak occurs one period after an output peak has occurred in the opposite direction, suggesting some delay in implementing the countercyclical policy through this spending item.

Tax revenues are uniformly found to be much more volatile than output, and move procyclically with it. Direct taxes are mostly correlated with current period output, and less so with past output.

In contrast, indirect taxes are found to lead changes in output by one and two years. We are not able to provide an explanation of this countercyclicallity; it may simply be an artefact due to the structural change in the indirect tax regime after 1987.

## (ii)Central Government (CG)

Main expenditure and revenue items of Central Government display similar volatility and cyclical movements as those mentioned previously for the general government. Looking at specific items, it is interesting to note that transfer payments and subsidies to households and enterprises by CG are found to be very volatile and procyclical with output. The fact that these items were found to be countercyclical in the case of general government, leads one to conclude that transfer payments by the social security system have to be the main countercyclical device used by the government, as analyzed in the next subsection.

Another major item of CG expenditure is military spending which is found to be 1.5 times more volatile than output and procyclical.

## (iii) Social Security System (SSS)

With the exception of wages, most of other expenditure items are significantly more volatile than output and countercyclical. As in the case for GG and CG, the wage bill shows a strong positive correlation with output and only a moderate volatility. Transfers, welfare grants, unemployment benefits, and pensions are all found to vary countercyclically with economic activity; the cyclical component is shown in Figure 8. The behaviour of the first three is straightforward, since demand for them increases in periods of recession. Counter-cyclicallity of pensions could possibly be explained in the following way: in periods of reflation wages tend to rise, thereby increasing the incentives of employees to remain in the labour force. During recessions, several people choose to retire as differentials between pensions and salaries are reduced. Moreover, finding a job in the underground economy while in retirement is more pressing during recessions.

Revenues of SSS mainly come from the National Insurance contributions, which are found to vary procyclically with economic activity and to be 2-3 times more volatile than output. These findings apply to contributions from both employers and employees.

Apart from wages, the only other SSS expenditure which moves procyclically with output is the item of sickness allowances, suggesting that medical treatment tends to become more generous in

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prosperous times and cut back in periods of recessions - a confirmation of the first hypothesis.

## (iv) Local Authorities (LA)

Wages paid to LA workers are procyclical in this case too, while other expenditures show no clear pattern relative to output. Transfers to LA from Central Government appear to be very volatile and procyclical.

## (v) Public Enterprises (PE)

Income of PE is found to be four times more volatile as country's GDP and strongly procyclical. This can be explained simply by the fact that demand for PE services increases with general economic activity. Its high volatility can be attributed to the fact that the number of PE was increasing over most of the period in the 1980s due to the nationalisation policies, and then reduced in early 1990s as a result of privatisation or liquidation. Expenditure by the PE is found to be procyclical with, and more volatile than, output. The wage bill is again found procyclical.

## Appendix C: ESTIMATION OF ELASTICITIES

Table A2 reports the estimates of short-run and long-run elasticities of various expenditure and revenue categories with respect to GDP at market prices (GDPM). The elasticities provide useful information on the flexibility of various items, and, in conjuction with the analysis of the cyclical characteristics described in Section 5, can be used to assess the potential manouverability of those categories in redressing the budget deficit.

The long run elasticity is obtained through simple cointegration analysis, by regressing the following equation and then testing the stationarity of the residual:

$$\ln X = a + \beta \ln Y + z$$

where is Y is GDPM at constant 1970 prices, X is the value of the expenditure or revenue variable deflated at constant prices by the appropriate deflator, and z is the residual. Stationarity tests for the residual are performed by evaluating the Dickey-Fuller test.

Short run elasticities are obtained by estimating the following equation

$$\Delta \ln X = \gamma + \delta \Delta \ln Y - \psi z_{1}$$

The estimation period is 1975-91. Assuming that the Dickey-Fuller statistic is satisfied, the long and short run elasticities are given by  $\beta$  and  $\delta$  respectively, which are reported in Table A2.



Figure 1: Revenues and primary spending (excluding interest payments) of General Government. Their gap widens in each election year, (denoted by E).



Figure 2: Share of mainly public employment (administration, health and other public services) in total employment.

Source: National Statistical Service, Employment Survey.



Figure 3: Real interest rate and growth rate in Greece.

(12-month Treasury bill rate adjusted by the rate of change in GDP deflator)



Figure 4: Primary deficit and primary gap.



Figure 5: Indices of sustainability GAP1: Primary, current rates. GAP2: Average growth and real interest rate. GAP3: Medium-term deficits



Figure 6: Deviations of planned and actual revenues and primary expenditure of General Government, as percent of planned amounts. Excess is positive and shortfall negative; Data for 1993 are provisional as in 26 October.



Figure 7: Public debt paths under alternative scenaria for growth and fiscal corrections.





## STATISTICAL TABLES

FOR GREECE

#### TABLE 1. MAIN ECONOMIC INDICATORS

Source: National Accounts, 1992. (Figures for 1992 are provisional)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GDP Growth rate	2.06	0.18	0.57	0.41	2.93	3.38	1.73	-0.72	4.46	3.66	-0.36	1.77	1.50
Per capita GDP growth	1.06	-0.70	-0.06	-0.17	2.42	2.98	1.43	-0.92	4.25	3.36	-1.41	0.49	0.71
CPI Inflation	24.81	24.55	20.92	20.20	18.47	19.31	23.01	16.41	13.52	13.72	20.44	18.90	15.80
Unemployment rate	2.70	4.00	5.80	7.90	8.10	7.70	7.40	7.40	7.60	7.40	7.20	7.70	7.70
Real wage growth	-2.51	0.16	4.62	1.09	2.59	1.40	-9.52	-5.51	4.63	3.75	-2.80	-4.00	-2.00
Nominal ULC growth	15.61	27.30	26.39	22.19	19.43	22.61	12.30	11.26	14.51	16.27	17.35	11.49	10.17
Investment to GDP	22.20	20.50	19.99	19.65	18.01	18.33	16.91	16.15	16.84	17.87	18.92	18.25	18.58
Private investment	16.88	15.18	14.34	13.26	11.17	11.05	11.05	11.55	12.30	13.02	14.26	13.20	13.26
Public investment	5.33	5.32	5.66	6.39	6.84	7.27	5.86	4.60	4.53	4.85	4.65	5.05	5.32
Public inv/consumption	32.26	30.22	31.59	34.88	37.27	39.72	32,82	25.35	24.93	26.53	25.40	28.26	30.06
Primary deficit	-0.39	6.41	4.19	4.16	4.98	8.73	6.96	7.44	9.75	13.51	14.87	11.04	10.00
Trade deficit	5.99	7.19	11.48	11.56	9.35	12.95	9.65	8.36	7.45	9.57	12.08	12.06	14.65
Public debt	28.80	34.20	38.70	44.30	53.20	62.50	65.00	72.50	80.20	85.90	95.30	100.90	106.70

#### TABLE 2 : GENERAL GOVERNMENT INDICATORS

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
TOTAL SPENDING (excl. IS Transfers)	30.27	35.63	36.64	37.79	39.63	43.34	42.53	43.91	44.32	45.60	49.30	47.84	49.40	48.20
INTEREST PAYMENTS	2.41	3.18	2.59	3.67	4.55	5.35	5.74	7.17	7.87	8.23	11.94	12.77	14.30	15.20
TOTAL REVENUE (excl. IS Transfers)	30.66	29.22	32.45	33.64	34.65	34.61	35.57	36.47	34.57	32.09	34.44	36.80	39.40	38.50
GROSS DEFICIT	-0.39	6.41	4.19	4.16	4.98	8.73	6.96	7.44	9.75	13.51	14.87	11.04	10.00	9.70
CENTRAL GOVERNMENT	2.28	8.37	5.87	5.42	5.33	8.32	5.49	6.94	10.21	13.75	14.29	10.39		
GROSS FIXED CAPITAL FORMATION incl. Capital transfers	3.70	3.90	2.90	3.50	4.40	4.60	4.60	3.70	3.60	3.90	3.20	3.90	3.80	3.50
PUBLIC DEBT	28.80	34.20	38.70	44.30	53.20	62.50	65.00	72.50	80.20	85.90	95.30	100.90	106.70	110.20

BORROWING

-3.4 -10.7 -7.60 -8.10 -9.80 -13.60 -12.00 -11.60 -13.80 -17.70 -18.60 -16.30 -13.80 -13.20

#### TABLE 3.1 : CENTRAL GOVERNMENT EMPLOYEES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
TOTAL	189622	192814	213942	220622	228156	252532	266096	270849	269497	275298	272033	277306	272136
CIVIL SERVANTS	149866	151789	169409	174503	181470	204206	219070	222797	220506	226558	223788	225193	221529
FORCES	39756	41025	44533	46119	46686	48326	47026	48052	48991	48740	48245	52113	50607

Source : Budget Reports, Ministry of Finance (various editions)

#### TABLE 3.2 : NUMBER OF PENSIONERS

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
TOTAL	197313	199892	204363	208104	212298	230601	241048	254762	262164	302698	329839	280026	285935
CIVIL SERVANTS	72107	74107	76853	80508	84542	87371	95150	103825	108555	111597	117066	121913	127603
RAILWAYS	14362	14523	15030	15016	14989	14886	14745	14589	14359	14090	13823	13488	13130
VETERANS	54335	53002	51684	50288	48997	47637	47733	48338	48375	48476	47903	47365	46344
FORCES	56509	58260	60796	62292	63770	65525	67340	70171	72381	74428	75667	76883	77954
LOCAL AUTHORITIES						15182	16080	17839	18494	18738	18916	20146	20600
OTHER										35369	56464	231.00	304.00

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Source : Budget reports, Ministry of Finance (various editions)

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#### TABLE 4 : GENERAL GOVERNMENT EXPENDITUREBY FUNCTIONAL CLASSIFICATION

		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
I.	CONSUMPTION AND TRANSFERS												
	GENERAL ADMINISTRATION	5.10	5.57	5.76	5.94	6.81	7.29	6.65	7.01	7.16	7.81	8.08	NA
	DEFENCE	5.84	6.59	6.46	6.36	6.45	6.28	5.80	5.87	5.90	5.35	5.31	NA
	JUSTICE	0.63	0.68	0.72	0.70	0.69	0.72	0.71	0.54	0.75	0.75	0.78	NA
	HEALTH	3.44	3.60	3.93	3.87	3.75	3.70	4.05	3.91	3.95	3.89	4.02	NA
	SOCIAL SECURITY	7.69	9.38	11.23	11.77	12.45	13.04	12.93	13.06	13.14	13.50	12.99	NA
	EDUCATION	2.19	2.36	2.51	2.84	2.65	3.00	2.84	2.82	2.86	3.21	3.32	NA
	OTHER ACTIVITIES	0.73	0.78	0.69	0.71	0.73	1.22	1.25	1.31	1.25	1.38	1.42	NA
	SUBTOTAL	25.62	28.95	31.32	32.19	33.52	35.25	34.23	34.53	35.01	35.89	35.92	NA
II	. PUBLIC INVESTMENT	5.60	5.93	5.96	6.99	7.52	8.12	6.97	5.45	5.30	5.86	5.34	5.77
	TOTAL	31.22	34.88	37.28	39.18	41.04	43.37	41.20	39.97	40.32	41.75	41.26	NA

NA : Non available in the latest publication of National Accounts (1992)

#### TABLE 5.1 : GENERAL GOVERNMENT SPENDING

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Current Consumption	16.37	17,98	18.30	18.82	19.52	20.40	19.35	19.57	20.03	20.55	21.09	19.63	19.68	18.89
Compensation of Employees	11.40	12.10	12.70	12.90	13.30	14.00	13.20	13.40	13.60	14.40	14.90	13.30	12.60	12.00
Civilian Wages	8.25	8.65	9.06	9.38	9.69	10.49	9.82	10.17	10.41	11.19	11.47			
Purchases of Goods and Services	4.9	5.9	5.6	5.9	6.2	6.4	6.1	6.1	6.4	6.1	6.2	6.6	7.1	6.9
Other Civilian Purchases	2.58	3.02	3.09	3.37	3.66	3.87	3.97	3.74	3.90	4.20	4.46			
Interest Payments	2.41	3.18	2.59	3.67	4.55	5.35	5.74	7.17	7.87	8.23	11.94	12.77	14.26	15.18
Transfers to Households and Enterprises	8.95	10.66	12.69	12.98	13.44	14.52	14.55	14.67	14.73	15.13	14.55	14.20	14.36	13.12
Subsidies to firms	2.43	3.72	2.94	2.15	2.01	2.98	2.79	2.43	1.62	1.64	1.67	1.17		
Transfers Abroad	0.12	0.09	0.12	0.18	0.10	0.09	0.09	0.07	0.07	0.06	0.05	0.07	0.07	0.06
TOTAL CURRENT SPENDING	30.27	35.63	36.64	37.79	39.63	43.34	42.53	43.91	44.32	45.60	49.30	47.84	49.41	48.21
Capital formation	3.70	3.90	2.90	3.50	4.40	4.60	4.60	3.70	3.60	3.90	3.20	3.90	3.80	3.50
TOTAL CURRENT EXPENDITURE	33.97	39.53	39.54	41.29	44.03	47.94	47.13	47.61	47.92	49.50	52.50	51.74	53.21	51.71
Net Transfers to SS, LA & PE	2.61	3.51	3.61	3.65	3.92	3.97	3.92	5.54	7.12	8.36	8.00	6.77		
Correcting items	0.04	0.03	0.03	0.03	0.02	0.02	0.07	0.05	0.06	0.06	0.06	0.09		
TOTAL	36.6	43.07	43.18	44.97	47.97	51.93	51.12	53.2	55.10	57.92	60.56	58.60		
CG: Central Government														

SS: Social Security

LA: Local Authorities

PE: Public Enterprises

#### TABLE 5.2 : CENTRAL GOVERNMENT SPENDING

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Current Expenditure	12.13	13.48	13.61	13.74	13.92	14.39	13.38	13.58	13.79	14.15	14.29	13.12
Wages	5.61	5.91	6.26	6.53	6.67	7.30	6.74	6.96	7.10	7.69	7.84	
Other Purchases	0.98	1.27	1.19	1.14	1.09	1.05	1.08	0.97	0.96	1.30	1.28	
Military Expenditure	5.54	6.30	6.15	6.06	6.16	6.04	5.56	5.66	5.72	5.15	5.16	
Transfers to Households and Enterprises	0.47	0.45	0.74	0.61	0.37	0.73	0.70	0.62	0.55	0.84	0.91	0.91
Interest Payments	2.41	3.18	2.59	3.35	4.26	5.17	5.35	6.52	7.30	7.19	11.01	11.04
Subsidies	2.43	3.72	2.94	2.15	2.01	2.98	2.79	2.43	1.62	1.64	1.67	1.17
Transfers Abroad	0.12	0.09	0.12	0.18	0.10	0.09	0.09	0.07	0.07	0.06	0.05	0.07
Transfers to SS, LA and PE	2.65	3.53	3.64	3.68	3.94	3.99	3.99	5.59	7.18	8.42	8.06	6.86
TOTAL SPENDING	20.20	24.46	23.63	23.70	24.61	27.36	26.31	28.81	30.50	32.29	35.99	33.18

## TABLE 5.3 : LOCAL AUTHORITIES SPENDING

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Current Expenditure	0.51	0.57	0.61	0.64	0.74	0.79	0.70	0.73	0.70	0.79	0.83	0.83
Wages	0.75	0.84	0.88	0.86	0.89	0.92	0.81	0.86	0.85	0.90	0.97	0.94
Net Other Purchases	-0.24	-0.26	-0.26	-0.22	-0.15	-0.13	-0.11	-0.13	-0.15	-0.11	-0.15	-0.11
Transfers to Households and Enterprises	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.03	0.03	0.03	0.03	0.04
Transfers to CG	0.06	0.06	0.04	0.04	0.01	-0.00	-0.02	0.02	-0.06	-0.05	-0.04	-0.04
TOTAL SPENDING	1.29	1.35	1.41	1.61	1.73	1.94	1.83	1.69	1.61	1.69	1.93	1.91

Note: "Net Other Purchases" may have a negative sign due to the construction methodology.

### TABLE 5.4 : PUBLIC ENTERPRISES SPENDING

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Current Expenditure	2.50	2.63	2.72	2.88	3.14	3.28	3.46	3.62	3.90	3.90	4.04	3.77
Wages	1.37	1.35	1.37	1.41	1.53	1.58	1.62	1.73	1.82	1.95	1.98	1.83
Other Purchases	1.13	1.29	1.35	1.47	1.62	1.70	1.84	1.89	2.07	1.95	2.05	1.94
Transfers to Households and Enterprises	0.15	0.16	0.15	0.15	0.15	0.14	0.14	0.10	0.09	0.10	0.09	0.08
Transfers to CG	0.02	0.01	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.05
TOTAL SPENDING	2.66	2.80	2.88	3.05	3.30	3.43	3.63	3.74	4.01	4.02	4.15	3.90

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#### TABLE 6: SOCIAL SECURITY SPENDING

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Current Expenditure	1.23	1.29	1.37	1.56	1.71	1.94	1.81	1.64	1.64	1.71	1.94	1.91
Wages	0.52	0.56	0.56	0.58	0.61	0.69	0.64	0.62	0.63	0.65	0.67	0.63
Other Purchases	0.71	0.73	0.81	0.98	1.11	1.25	1.17	1.02	1.01	1.07	1.27	1.27
Transfers to Households	8.32	10.00	11.76	12.18	12.91	13.65	13.73	13.93	14.09	14.19	13.59	13.25
Pensions	5.48	6.84	8.51	8.82	9.49	10.25	10.26	10.45	10.80	10.94	10.56	10.08
Welfare Allowances	0.84	1.03	1.13	1.32	1.31	1.39	1.27	1.22	1.16	1.13	0.91	0.83
Unemployment Allowances	0.32	0.39	0.39	0.41	0.43	0.49	0.54	0.58	0.49	0.55	0.55	0.82
Sickness Allowances	1.69	1.73	1.73	1.63	1.68	1.52	1.65	1.68	1.65	1.56	1.57	1.51
Interest Payments	0.00	0.00	0.00	0.32	0.29	0.18	0.38	0.66	0.57	1.04	0.93	1.73
Transfers to CG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00
TOTAL SPENDING	9.56	11.30	13.13	14.07	14.92	15.77	15.93	16.23	16.31	16.95	16.46	16.89

## TABLE 7.1 : GENERAL GOVERNMENT REVENUES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Direct Taxes	14.97	14.19	16.52	16.77	17.48	17.31	17.41	17.21	16.79	15.80	16.34	17.74	18.00	16.80	
Direct Taxes on Income	14.56	13.79	16.06	16.31	17.07	16.95	16.98	16.78	16.36	15.36	15.81	17.21	17.93	16.82	
Taxes on Personal Income	3.85	3.29	4.16	4.07	4.35	4.13	4.17	3.97	4.22	3.40	3.82	3.94			
SS Contributions	9.00	9.10	10.20	10.90	11.10	11.30	10.90	10.70	10.40	10.10	9.70	10.00	11.2	11.2	
Taxes on Corporations	1.23	1.01	1.27	0.97	1.14	1.11	1.51	1.60	1.34	1.37	1.75	1.73			
Direct Taxes on Property	0.42	0.40	0.47	0.46	0.41	0.36	0.42	0.43	0.44	0.43	0.53	0.53			
Indirect Taxes	13.37	13.04	14.24	15.11	15.21	15.27	16.52	17.44	16.27	14.98	16.89	17.57	19.03	19.29	
Income from Property and Entrepreneurship	2.32	1.99	1.69	1.75	1.96	2.03	1.64	1.81	1.52	1.32	1.21	2.00	2.50	2.40	
TOTAL REVENUE	30.66	29.22	32.45	33.64	34.65	34.61	35.57	36.47	34.57	32.09	34.44	36.80	39.42	38.52	
IS Transfers	2.65	3.53	3.64	3.68	3.94	3.99	3.99	5.59	7.18	8.42	8.06	6.86			
TOTAL RECEIPTS	33.31	32.75	36.09	37.31	38.59	38.60	39.56	42.06	41.75	40.51	42.50	43.67			

#### TABLE 7.2 : CENTRAL GOVERNMENT REVENUES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	
Direct Taxes	5.17	4.21	5.42	5.03	5.47	5.12	5,58	5.54	5.45	4.81	5.73	5.79	
Taxes on Households	3.94	3.20	4.16	4.06	4.34	4.01	4.08	3.94	4.11	3.44	3.98	4.06	
Taxes on Corporations	1.23	1.01	1.27	0.97	1.14	1.11	1.51	1.60	1.34	1.37	1.75	1.73	
Indirect Taxes	12.17	11.74	12.57	13.34	13.68	13.70	15.04	16.20	15.16	14.03	16.07	16.75	
Duties	2.98	2.84	3.30	3.73	3.78	4.18	4.45	1.72	1.37	1.06	1.05		
VAT								7.12	7.31	7.50	8.45		
Other Indirect Taxes	9.20	8.90	9.26	9.62	9.91	9.51	10.59	7.36	6.48	5.47	6.56		
Income from Property and Entrepreneurship	0.55	0.11	-0.26	-0.11	0.10	0.20	0.12	0.08	-0.38	-0.36	-0.16	0.15	
Transfers to CG	0.04	0.03	0.03	0.03	0.02	0.02	0.07	0.05	0.06	0.06	0.06	0.09	
TOTAL REVENUE	17.93	16.08	17.76	18.28	19.28	19.04	20.82	21.87	20.29	18.54	21.70	22.79	

10.00 10.01 10.0

## TABLE 7.3 : SOCIAL SECURITY REVENUES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Direct Taxes	8.99	9.11	10.19	10.86	11.12	11.34	10.90	10.74	10.40	10.12	9.71	11.09
Employers' contributions	4.23	4.36	4.77	5.05	5.18	5.23	4.98	5.00	4.95	4.72	4.61	5.28
Employees' contributions	4.21	4.33	4.83	5.16	5.33	5.47	5.31	5.16	4.94	4.95	4.71	5.36
Other Direct Taxes	0.55	0.42	0.59	0.65	0.62	0.63	0.61	0.58	0.51	0.45	0.38	0.45
Indirect Taxes	0.72	0.89	1.34	1.47	1.18	1.27	1.18	0.96	0.82	0.69	0.63	0.61
Income from Property and Entrepreneurship	0.74	0.78	1.03	1.02	1.08	1.05	0.77	0.99	1.20	1.03	0.74	0.73
CG Transfers to SS	0.18	0.77	0.50	0.64	0.69	0.65	0.80	2.06	3.25	3.57	3.43	2.60
TOTAL REVENUE	10.63	11.55	13.06	13.99	14.07	14.30	13.65	14.75	15.66	15.40	14.51	15.03

TABLE !

#### TABLE 7.4 : LOCAL AUTHORITIES REVENUES

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Direct taxes on Income	0.10	0.11	0.13	0.16	0.20	0.19	0.20	0.19	0.19	0.14	0.11	0.08
Indirect Taxes	0.15	0.12	0.13	0.11	0.17	0.14	0.14	0.14	0.13	0.12	0.10	0.08
Income from Property and Entrepreneurship	0.09	0.10	0.09	0.08	0.09	0.09	0.09	0.09	0.08	0.07	0.08	0.08
CG Transfers to LA	0.37	0.44	0.60	0.57	0.54	0.55	0.47	0.55	0.56	0.69	0.61	0.57
TOTAL REVENUE	0.70	0.77	0.95	0.92	1.01	0.97	0.89	0.98	0.97	1.02	0.89	0.82

# Potential Contribution to budget consolidation of revenue categories in Greece (Central Covt)

		++	+	_		Total	Share (1991)
1.	Taxes on portfolio income	extending tax base		tax competition		+	- Hilenni (1994)
2.	Taxes on corporate profits	i dente	curbing	incentives		0	1.7
3	Taxes on goods & services		avoidance				
5.	3.1. VAT			competition	·	0	8.5
	3.2. Excise duties			competition		-	1.4
	3.3. Other taxes		environment				6.5
4.	Taxes on use of labour					+	
	4.1. SCC, employees			cost reduction		-	5.4
	4.2. SCC, employers			incentives		-	5.3
	4.3. SCC, self-employed		enforcement			+	_
	4.4. Other taxes		an an and -				
5.	Taxes on income of	curbing avoidance				+++	4.01
	individuals						
6.	Taxes on property	enforcement				++	0.5
7.	Miscellaneous taxes	(indexation extensions)				++	1.5
8.	Non-tax revenues	indexation	privatisation	2		+++	

Potential Contribution to budget consolidation of functional expenditure categories in Greece (Central Covt)

			+	The second se		Total	Share (1991)
		++				+	8.1
1.	General public services		Efficiency			+	5.3
2.	Defence		Rationalisation			0	0.8
3.	Public order and safety		Rationalisation	modernisation		0	0.0
4.	Education		Rationalisation		training	0	5.5
5. 6.	Health Social secrity and welfare		Rationalisation Curbing abuses	expansion	demography	0 -	4.1 13. 0.10
7. 8.	Housing and community amenities Recreational, cultural and religious		Reduction	extension		+	0.6
9.	affairs Economic services		GDP growth	High interest rates		0	12.8
10.	Other functions					1	

# Major revenue-increasing measures in Greece, 1980-1992

Year	Corporate taxes	VAT	Excise duties	SCC Employees	SCC employers	Income taxes	Property taxes	Non-Tax revenues	Taxes on portfolio income
1980 1981 1982 1983 1984			cars duties				enlargement		Dividend tax
1985 1986 1987		new rates				higher rates			
1988							Objective valuation of real estate		
1989			increase in car imports			surcharge			
1990		new rates		new rates	new rates	surcharge		privatisation	interest tax
1991				new rates	new rates		new system of property tax	privatisation	
1992		petrol tax				penalisation			

Major expenditure-decreasing measures in Greece, 1980-1992

Year	Defence	Public order	Education	Health	SCC and Welfare	Housing amenities	Recreational & cultural	Economic Services	General services
1980									
1981	4 -6						[ [ 문화] [ 문화] 문화		
1982	and a second	- Sincher						Land Miller	
1983									Wage Freeze
1984		2 1 1 1 1							
1985									Wage Freeze
1986									
1987									
1988									
1989									
1990	Service time				New law	Reduction of	Reduction of		Wage freeze
	reduced				on retirement	Loans	services		Employment
								1.1.1.1.1.1.1.1	cuts
1991	Service time			Fees	New law on			Interestpayment	Wage Freeze
	reduced		37		retirenent			restructuring	
1992	1.42.99			of the second		fu			Wage freeze

Table A1:	Cross	Correlations	of	real	Budget	variables	with	Real	GDP	(at	market
	prices	)									

	Standard deviation in percent	Lags (-) and Leads (+) of the variables							
		-2	-1	0	+1	+2			
REAL GDP	2.14	.04	.48	1.00	.48	.43			
BUDGET VARIABELS									
GENERAL	OVERNMENT								
	1.00			- 10					
I. CURRENT EXPENDITURE	1.80	18	.20	.48	.22	10			
3 OTHER DURCHASES	2.89	07	.38	.02	.44	.07			
1 INTEREST PAYMENTS ON PUBLIC DEBT	9.00	49	03	30	.04	.43			
STOTAL DIRECT TAXES	531	00	01	37	- 00	.10			
6 DIRECT TAXES ON INCOME	537	.09	.08	35	09	.17			
7. DIRECT TAXES ON HOUSEHOLDS	5.57	02	.00	.38	.07	11			
8. DIRECT TAXES ON PROPERTY	947	30	35	.54	38	20			
9. INDIRECT TAXES	5.58	.52	43	.15	- 20	- 47			
CENTRAL C	OVERNMENT								
1. CURRENT EXPENDITURE	2.28	01	.28	.37	.08	22			
2. EXPENDITURE ON WAGES	2.84	12	.32	.67	.36	02			
3. OTHER PURCHASES	9.38	13	36	04	.09	.21			
4. MILITARY EXPENDITURE	3.47	.13	.37	.06	18	18			
5. NET TRANSFERS TO HOUSEHOLDS AND ENTERPRISES	19.95	05	.00	.39	.35	.07			
6. INTEREST PAYMENTS ON PUBLIC DEBT	9.52	22	.01	.08	.20	.22			
7. SUBSIDIES	17.11	14	17	.12	.21	.03			
8. TRANSFERS ABROAD	18.27	.10	14	22	41	.01			
9. DIRECT TAXES ON INCOME	9.03	.19	.01	.28	11	.24			
10.DIRECT TAXES ON HOUSEHOLDS	8.45	.01	.24	.41	.26	.20			
11.DIRECT TAXES ON CORPORATIONS	19.75	.26	16	.07	28	.14			
12.INDIRECT TAXES TOTAL	5.80	.55	.48	.20	15	47			
13.INDIRECT TAXES DUTIES	25.51	17	23	04	11	15			
SOCIAL	SECURITY				= 1				
1. CURRENT EXPENDITURE	6.54	40	21	.13	.21	.20			
2. CURRENT EXPENDITURE WAGES	3.66	19	.26	.67	.33	16			
3. OTHER PURCHASES	10.55	39	29	.01	.20	.32			
4. NET TRANSFERS TO HOUSEHOLDS AND ENTERPRISES	5.72	18	20	15	25	12			
5. EXPENDITURE ON PENSIONS	7.30	20	29	31	34	12			
6. EXPENDITURE ON WELFARE ALLOWANCES	10.39	14	02	.15	10	20			
7. EXPENDITURE ON UNEMPLOYMENT ALLOWANCES	11.38	24	13	20	.29	.12			
8. EXPENDITURE ON SICKNESS ALLOWANCES	6.75	.19	.31	.58	.32	.20			
9. DIRECT TAXES ON INCOME	5.41	.03	.15	.32	11	01			
10.CONTRIBUTIONS OF EMPLOYERS	5.87	.14	.37	.48	04	07			
11.CONTRIBUTIONS OF EMPLOYEES	5.25	12	01	.22	04	.07			
LOCAL AT	JTHORITIES		<u> </u>	2011					
1. CURRENT EXPENDITURE	5.97	19	13	.05	.05	.05			
2 CURRENT EXPENDITURE WAGES	6.65	43	26	.15	.44	.71			
3. DIRECT TAXES ON INCOME	28.69	43	40	55	08	.04			
4. INDIRECT TAXES	13.32	.13	.09	.07	39	37			
PUBLIC E	NTERPRISES								
I. CURRENT EXPENDITURE	4.66	18	.03	.47	.39	.29			
2 CURRENT EXPENDITURE WAGES	5.94	.33	.55	.82	.24	21			
3. UTHER PURCHASES	9.58	52	44	12	.31	.30			
* NET TRANSPERS TO HOUSEHOLDS AND ENTERPRISES	16.42	.44	.28	.24	42	04			
5. DIRECT TAXES ON INCOME	15.09	51	23	.23	.61	.55			
5. INDIRECT TAXES	14.82	.22	.60	.78	.23	11			
6. INCOME FROM PROPERTY AND ENTERPRENEURSHIP	9.11	57	27	.16	.69	.78			

GENER	AL GOVE	RNMENT			
	Longrun	Shortrun	DF test	ADF test	DF test for the residual
1. Current Expenditure	1.32	0.61	-3.22	-2.11	-2.02
2. Current Expenditure Wages	1.94	1.20	-3.23	-2.18	-2.63
3. Current Expenditure other Purchases	1.72	-0.83	-0.00	0.57	-1.20
4. Total Direct Taxes	2.14	1.52	-6.20	-2.38	-2.45
5. Direct Taxes on Income	2.16	1.54	-6.24	-2.33	-2.39
6. Direct Taxes on Households	2.24	1.15	-3.45	-2.23	-1.77
7. Direct Taxes on Property	1.88	0.84	-3.68	-3.13	-2.62
8. Indirect Taxes	1.45	0.18	-3.03	-4.03	-2.06
CENTR	AL COVE	RNMENT			
1. Current Expenditure	0.74	0.51	-3.78	-3.12	-2.95
2. Current Expenditure Wages	1.87	1.16	-3.82	-2.41	-2.74
3. Current Expenditure other Purchases	0.37	-0.14	-4.02	-3.22	-2.36
4. Current Expenditure Military Expenditure	-0.28	-0.07	-5.10	-3.52	-3.05
5. Net Transfers to Households and Enterprises	3.70	2.01	-5.12	-5.44	-4.50
6. Interest Payments on Public Debt	7.02	1.27	-6.01	-4.09	-2.87
7. Subsidies	-0.66	-0.65	-3.41	-4.31	-2.31
8. Transfers Abroad	-2.54	-0.23	-5.82	-3.66	-4.12
9. Direct Taxes of Income	2.08	1.93	-10.89	-4.18	-5.92
10. Direct Taxes on Households	2.36	0.94	-6.04	-2.72	-2.92
11. Direct Taxes on Corporations	1.61	3.88	-10.44	-3.32	-3.58
12. Indirect Taxes Total	1.61	-0.28	-3.05	-3.67	-1.87
13. Indirect Taxes Duties	-1.54	2.84	-3.07	-2.04	-1.24
SOC	IAL SEC	URITY			
1. Current Expenditure	3.14	1.11	-2.66	-2.06	-1.37
2. Current Expenditure Wages	1.56	1.34	-3.74	-2.76	-2.23
3. Current Expenditure other Purchases	4.46	0.10	-3.41	-1.99	-1.47
4. Net Transfers to Households and Enterprises	3.41	0.70	-2.05	-2.25	-1.24
5. Expenditure on Pensions	3.93	0.61	-2.40	-2.26	-1.40
6. Expenditure on Welfare Allowances	2.48	2.01	-3.63	-1.21	-0.75
7. Expenditure on Unemployment Allowances	3.47	0.19	-6.20	-2.76	-4.35
8. Expenditure on Sickness Allowances	1.46	0.76	-4.00	-3.81	-3.22
9. Direct Taxes on Income	2.20	1.30	-2.85	-2.17	-1.71
10. Contributions of Employers	2.15	1.46	-2.32	-2.69	-2.12
11. Contributions of Employees	2.39	1.15	-2.89	-1.73	-1.43
LOCA	L AUTHO	ORITIES			
1. Current Expenditure	2.98	0.57	-3.83	-3.70	-2.01
2. Current Expenditure Wages	2.19	0.15	-2.75	-1.97	-1.51
3. Direct Taxes on Income	2.54	-4.19	-4.83	-0.98	-1.76
4. Indirect Taxes	0.13	2.51	-5.66	-2.06	-2.43
PUBLI	C ENTE	RPRISES			
1. Current Expenditure	3.02	1.48	-3.69	-2.55	-2.26
2. Current Expenditure Wages	2.20	2.44	-3.80	-2.23	-2.89
3. Current Expenditure other Purchases	4.05	0.37	-3.06	-2.81	-1.96
4. Net Transfers to Households and Enterprises	-2.66	2.57	-3.52	-3.38	-3.44
5. Direct Taxes on Income	2.10	-0.12	-3.41	-2.36	-1.84
6. Indirect Taxes	-3.35	3.55	-3.23	-2.46	-2.17
7. Income from Property and	-0.12	0.18	-2.32	-2.40	-1.28
Entrepreneurship					

MacKinnon critical values are: 1%: -4.3260, 5%: -3.2195, 10%: -2.7557