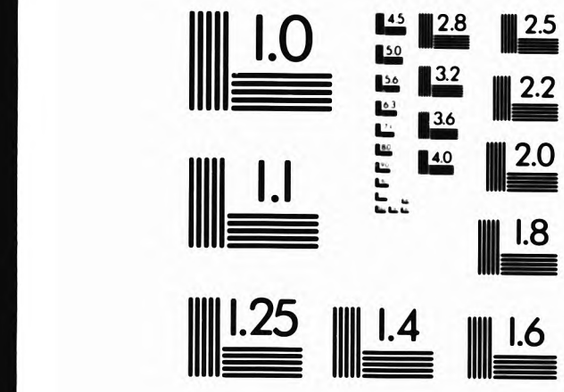
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ON MACROECONOMIC POLICY, EFFECTIVE DEMAND AND UNEMPLOYMENT: THE EUROPEAN EXPERIENCE.

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A thesis submitted in partial fulfilment of the requirements
of London Guildhall University for the degree of Doctor of Philosophy

April 2001

Abstract

Within the EU region the EU member states, by discarding their right to exercise fiscal and monetary policy independently, have signed up to a set of rules and regulations that will eventually lead to European and Monetary Union (EMU). These set of rules as reflected by both the Maastricht criteria as well as the Stability and Growth Pact, contain no reference to either the unacceptable levels of European unemployment or the balance of trade position. The ensuing wave of criticism directed at the motivation as well as the rationale behind such a stringent set of rules and regulations has caused a lot of uncertainty to emerge as to what the future of such an economic venture would be.

The primary objective of this thesis is to investigate the existing problem of European unemployment within the new economic environment that emerged after the demise of Bretton Woods and most crucially after the ratification of the Maastricht Treaty. Further, it develops an alternative demand-based macroeconomic framework on the basis of which the undertaken econometric analysis provides evidence in support of our approach. In particular, by examining the way macroeconomic policy has evolved after the demise of Bretton Woods and questioning the premise with which the new economic orthodoxy has established its authority in euroland, we review the current position of EMU countries in relation to the convergence criteria. It is argued that the deflationary bias in conjunction with the institutional arrangements peculiar to an independent European central bank (ECB) undermine the potential of future economic policies to deal with persistent levels of unemployment. Moreover, it is sustained that the absence of a strategy tailored to stimulate economic activity together with the underlying deflationary nature implied by convergence criteria, may be potential factors that contribute to the perpetuation of high levels of unemployment. Lack of demand in conjunction with the prevalent instability in the labour markets have harmed productive efficiency and most importantly the creation of additional capacity on which employment could be encouraged. Therefore, a case for policies designed to boost aggregate demand is made.

In pursuing our objective, a post Keynesian macroeconomic framework provides the theoretical underpinnings on which the empirical investigation is based. On the methodological front, panel data analysis is applied to EU countries. The results obtained suggest that unemployment in Europe is a by-product of economic policies devoid of any measures to affect demand as well as supply factors. Moreover, on the basis of the evidence, the deflationary bias that characterises the EU economies especially after the ratification of the Maastricht treaty appears to have dampened economic activity and hence employment in most EU member states.

Some further investigation into the rationale behind the introduction of the Stability Pact yields additional evidence casting considerable doubts on two of the most fundamental reasons put forward in defence of the Stability pact, namely the fear for interest rate spillovers across the EU economies and the significant role of national savings in conditioning investment.

Finally a concluding chapter provides some alternative policy recommendations.

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Acknowledgements

First of all, I would like to express my gratitude to both my supervisors Valerio Lintner and Dr. Joseph Pearlman for their support and encouragement throughout the entire period of my Ph.D. I am also grateful to Georgios Argitis, for the stimulating and insightful discussions we had prior to as well as during the course of my research, Andrew Glyn, Marika Karanassou and Malcom Sawyer for comments on earlier drafts of this thesis.

I am most grateful to the departments of economics at both London Guildhall University and Queen Mary College, University of London, for giving me the opportunity to experience what it is like to be a member of the academic community.

This thesis is the outcome of my own work and any remaining errors are mine.

Introduction

Primarily, the aim of this thesis is to highlight the incompatibility between the monetarist model upon which EMU is based and the alternative theoretical macroeconomic framework grounded in theories akin to the Keynesian-Kaleckian tradition. In this sense this study could be seen as an endeavour to identify a number of important themes, such as the relationship between effective demand and unemployment, which reflect the essence of the post Keynesian thought. In view of the lamentably little empirical evidence regarding this aforementioned relationship we provide significant econometric results using panel data analysis. The empirical evidence generated buttresses the hypothesis that deflationary policies such as the ones implied by the Maastricht convergence criteria can have adverse effects on effective demand and through this on EU employment. Hence, the deflationary bias of the convergence criteria in conjunction with the contractionary nature of the economic policy that is currently pursued within the EU region are bound to exacerbate rather than provide a solution to the problem of unemployment. Furthermore, this study by critically reviewing and comprehensively testing two of the main arguments put forward in defence of the stability pact provides empirical evidence suggesting that the implementation of such a stringent rules and regulations have to be carefully reconsidered. In essence, the contribution of this thesis is of great significance as it advances our understanding of the channels through which macroeconomic policy affects European unemployment.

Over the last 20 years a rising pattern in European unemployment has been observed in nearly all EU member states. The discernible shift in the emphasis of

macroeconomic policy during the late 1970s and early 1980s, towards combating inflation, rather than maintaining full employment, represented a watershed in international economic policy. Inevitably, the employment situation around the globe, and specifically in most countries of the European Union, has deteriorated, reaching alarming proportions. On the face of these new developments, arguably precipitated by the prevalence of the emerging economic orthodoxy, a number of issues concerning the underlying economic as well as social instability, have yet to be dealt with.

The dominance of the free-market consensus has caused a structural change in the model of economic development in the EU. The new economic orthodoxy asserts that there is no essential role that the state or the public sector can play in galvanising economic activity. In this theoretical context, the state should step aside and let the market forces create the economic conditions conducive to economic growth; there is no essential role for active macro-policies in stimulating employment and output. At present, the EU's policy agenda is closely aligned with the one proposed by the neoliberal school of thought and conforms to its priorities: deregulation, privatisation, balanced budgets and disinflation by means of monetary restrictions.

Economic policy, particularly in the EU, has suffered many setbacks and restrictions. A clear example of the current practice is its reliance upon monetary tests of convergence rather than examining real variables of output growth and rates of unemployment. Despite the accreditation that the EMU project has been given by many economists (see for example Artis and Winkler 1997), the associated rules, implied by both the Maastrict Treaty and the Stability pact, include a set of restrictions upon discretionary

fiscal policy through the implementation of maximum permitted budget deficits backed by the possibility of levying fines on defiant economies. The exercise of monetary policy has been entrusted to an independent central bank whose sole objective is to secure stable prices through the use of a single economic policy instrument, a common interest rate. Choosing the control of inflation as the main policy objective implies that there is no room for an explicit employment policy. As a result, the dogmatic implementation of doctrines of purely monetarist nature has crippled macroeconomic policy causing countries within the EU to suffer prolonged periods of slow growth and high levels of unemployment (Grieve-Smith 1995; Michie 1995; Eisner 1995; Eichengreen 1992; Grahl 1997).

Currently, economic policy has been heavily influenced by the notion that low levels of unemployment will cause inflation to accelerate, the so-called NAIRU (Friedman 1968; Phelps 1968, 1994). In spite of being heavily criticised by even mainstream economists (see for example Henry, Karanassou and Snower 2000), the concept of the natural rate of unemployment is embraced by academics and it certainly motivates the conduct of economic policy day to day throughout the capitalist world. Some even equate the natural rate with full employment and vigorously argue that governments should seriously consider factors such as the level of benefits for those who are out of work, if they want to reduce the actual level below it. The natural rate hypothesis has increased attention given to active labour market policies. The extent to which such a notion influences economic policy around the globe is evident in OECD's recommendations for nations to make their labour markets more flexible. They even provide estimates showing that, for instance, the UK's natural rate has fallen below that of other European nations as a result of policies designed to deregulate the labour market.

According to this framework, persistence in unemployment is put down to labour market rigidities, which together with poor education and motivation, insufficient information about available vacancies to workers, are preventing the unemployed from getting work (Layard & Nickell, 1986; Layard & Jackman, 1991; Blanchard & Diamond 1989; Mortensen 1986; Pissarides 1986). This policy stance is fundamentally based on the notion that variations in unemployment are the outcome of optimal decisions made by both job-seekers and job-suppliers in efficient markets. In this context, there is no room for active employment policy since it disrupts the functioning of the markets.

In the course of the analysis it has emerged that an alternative body of literature proposes a policy prescription that revolves around the adoption of traditional Keynesian fiscal and monetary policies of which their effectiveness in alleviating social-economic problems such as unemployment was tested in the past (Arestis 1992; Arestis & Marshal 1995; Sawyer 1992, 1995; Davidson 1998; Glyn & Rowthorn 1995; Michie & Wilkinson 1995; Eatwell 1995; Baimbridge et al. 2000). More specifically, in the 1950s, it is argued that the achievement of sustained economic growth, and full employment was thought to be a by-product of active Keynsian-type policies aimed at boosting the components of effective demand. Nonetheless, after the collapse of the economic regime established at Bretton Woods, the proponents of neoliberalism were swift to characterize these policies as ineffectual. Vigorous attempts made, predominantly, by alternative economic nexuses to restore, and effectively revitalize the significant role that Keynsian-type macroeconomic policies can play in stimulating effective demand, (and thereby, economic growth), have been given a cursory glance by policymakers.

The rest of the thesis is organized as follows: chapter 1 traces the macroeconomic path along which most of the European economies have been precariously keeping their balance, especially since the demise of Bretton Woods. The analysis undertaken in this chapter explores the way capitalism has evolved into an economic system, in which macroeconomic policy ceases to serve as a useful tool for managing economic activity (Sawyer 1999; Epstein & Schor 1986; Strange 1986; Minsky 1986; Kurzer 1992; Hutton 1995; Ingham 1984). Further, it examines the effects of high returns on financial investment, and speculative behaviour in the currency markets on real interest rates and most crucially, on economic performance. Fundamental questions regarding the extent to which the new financial environment has stifled the dynamics of productive investment as well as the extent to which public deficits unleash speculative runs against the currency, are also firmly elaborated.

The imposing fashion by which the neoliberal consensus established its authority over the European edifice is the subject of chapter 2. More specifically, by expanding on the nature of the Maastricht convergence criteria, this chapter calls into question the credibility of these rules in promoting conditions for full employment. Furthermore, it criticizes the nature of the convergence rules, in that they totally disregard the discernible impact of the provisions on real variables, such as employment, rates of growth, and balance of payments. A preliminary econometric analysis, in conjunction with the exposition of the way in which, some significant macroeconomic variables behaved prior to, as well as after the ratification of the Maastricht Treaty, purports to gain further insight into the impact of the convergence rules on European economies. On the whole, this chapter provides evidence in favour of the alternative literature which questions the validity

of the convergence rules as means of promoting economic stability and most crucially, employment creation within the EU region.

In chapter 3, prior to embarking on the main empirical investigation, a discussion of the econometric methodology to be applied as well as the fundamental hypothesis to be tested, takes place. Through the construction of a model, heavily influenced by the post Keynesian tradition, the existing relationships between the prospective variables to be included in the regression model are illustrated. For the econometric investigation panel data analysis is applied to 13 EU countries for the period 1961 to 1998. In view of the very few econometric studies undertaken to capture the impact that macro-policy and distributional variables exert on European unemployment, we feel that this part contributes to the existing literature considerably.

Chapter 4, in view of the lamentably little attention in the literature that the relationship between capital formation and unemployment has been given, attempts to throw some light on the neglected issue. Amongst the exceptions who have written on capital stock and employment are Bean (1989, 1994), Bean and Gavosto (1990), Carlin and Soskice (1990) Malinvaud (1980) Rowthorn (1977, 1995) The ingrained notion that investment has no long-run effect on unemployment and most crucially that the problem of job creation is a matter of encouraging more employment on the existing capital stock has influenced economic policy for more than 20 years now (see for eg. Layard, Nickell and Jackman 1991). By focusing on the channels through which demand-side as well as supply-side policies impact on capital stock and through this on unemployment we argue that the neoliberal spirit by which macroeconomic policy has been conducted since the 1970s may

have contributed to the augmentation of the number of people out of work. In this context, the application of panel data analysis to EU countries provide evidence as well as contribute to the existing literature by testing the underlying hypothesis and effectively gauging the extent to which the emergence of the new economic orthodoxy in Europe may be held responsible for the dire state that European labour markets are in.

Further to the evidence generated in the preceding chapters, the need for some additional probing into the restrictive nature of the European economic policy, as reflected by the successor of the Maastricht Treaty, the Stability Pact, is envisaged. To this effect, chapter 5 engages in a more comprehensive analysis as to where the rationale behind the introduction of such a set of stringent regulations embodied in the Stability Pact, derives from. In pursuing this objective, two of the most fundamental reasons: -(i) the prevention of interest rates spillovers that will result from irresponsible budgetary policies in the EU, and (ii) the significant role of national savings in conditioning investment and therefore economic growth - both put forward in defence of the Pact, after being vigorously debated, they have been put to the test. In this direction the econometric methodology adopted - a series of Granger causality tests, as well as a vector autoreggression (VAR) analysis both applied to a number of EU countries - contributes immensely to the understanding of the economic practices employed by the advocates of EMU to justify the introduction of a stringent set of rules embodied in the Stability pact and more significantly, casts some light on the very controversial relationship between investment and saving.

Finally, chapter 6 summarizes as well as offers some concluding thoughts and policy recommendations.

Chapter 1

Macroeconomic Policy in The "Leaden Age" in Europe

1.1 Introduction

Arguably, the demise of the economic regime established at Bretton Woods ushered in an era of volatile economic activity and poor economic performance, namely the "leaden age[1]". In spite of its infancy, the emerging economic system was quick to assert its authority by demolishing the then existing economic establishment, only to replace it with a system founded on 'free-market'[2] economic structures.

In this chapter an exploration of the new liberal thinking will be pursued in an attempt to provide a more lucid idea of the policies implied by the emerging consensus as well as the extent to which the EU economies have been affected by the new economic principles. More specifically, section 1.2 very briefly exposes the key mechanism that gave the Bretton Woods regime the means to tackle international problems. In section 1.3, an elaboration on the shift in economic policy across most of EU member states after the collapse of Bretton Woods will provide a further understanding of the repercussions that such a shift had on EU economic performance. This is further investigated in section 1.4, where the policy ramifications resulting from the prevalence of the neoliberal thinking in Europe, are assessed. More specifically, we focus on issues relating to industrial capacity

and manufacturing, the role of the financial system and that of effective demand. These provide the reasons why, despite its apparent failure to address the soaring problem of European unemployment, the emerging doctrine insists on adopting a policy mix devoid of any effective employment measures. Section 1.5 concludes.

1.2 Bretton Woods and Economic Sustainability.

The golden age was a model of social market economy that focused on promoting co-operation both at international level between nation states and at national level between workers, employers, and governments[3]. The co-operative social and economic environment of the golden age, in a regulated national and international economy, provided the necessary long-term stability required for high rates of private investment, which in turn made possible high rates of productivity growth[4]. Real wages rose in step with productivity and the share of profits in national income remained more or less stable during this period. In so far as the system was working it had a strong positive feedback mechanism, generating high rates of growth of production, consumption and employment.

During the golden age, the problem of the balance of payments surpluses and deficits between nation states was indeed resolved by high rates of growth of world demand, output, and employment. Eatwell (1997) argues that the Bretton Woods system worked not because of macroeconomic coordination but because of a framework of circumstances which permitted governments to pursue national macroeconomic policies without too much fear of international financial disruption[5].

The achievement of stable exchange rates was the main concern of the Bretton Woods regime. A modified gold standard formation was set up in an attempt to reduce the

deflationary pressures that had become a feature both of attempts to restore pre-war gold standard and the successive international crisis as it broke up during and after the 1931 slump. To this end, the system provided that exchange rates could be changed where there was agreed to be a structural imbalance in a country's balance of payments[6]. It also accepted in principle that creditor as well as debtor countries had an obligation to ensure the necessary adjustments. Countries faced with difficulties in the balance of payments could turn to the International Monetary Fund (IMF) for some assistance. Subject to these provisos, however, a basic feature of this system was that demand management should be employed to remedy short-term imbalances. The most important achievement of the system was the promotion of co-operation as the means of dealing with the evolving problems of international payment. It was a regime in which fiscal policy tended to take precedence over monetary policy as the major instrument of macroeconomic policy.

The fixed exchange rate regime re-established at Bretton Woods eventually broke up, however, in the early 1970s when there was a general move towards sporadic floating rates[7]. Since then, the approach entailing coordination between countries to tackle international economic problems has given way to free market ideology.

1.3 Liberal thinking and economic performance in Europe .

A browse through history suggests that the process of liberalization of capital movements started with the collapse of the Bretton Woods regime and the introduction of flexible exchange rates in the early 1970s. Alongside it a novel term, 'globalization', came to dominate the economic environment around the world. Inevitably, a growing debate over the virtues of liberalization and globalization started to take up a substantial space on

the agenda of governments in most industrial countries. The question whether liberalization and globalization[8] promote faster economic growth, both in rich and poor countries has undoubtedly been in the forefront of the debate.

The notion that countries should reduce the role of the state and enhance that of the market has been one of the most distinctive features of the new economic establishment[9]. Such a belief, for instance, can be detected in Mr. Lawson's[10] lecture in June 1984 where he expressed his belief in several of the basic tenets of monetarism. In particular, he emphatically stated that government measures to reduce unemployment should steer clear of demand management and concentrate instead on measures to promote price flexibility and the functioning of the markets. Moreover, it is often suggested that open trade leads to convergent rates of economic growth and that open economies successfully avoid balance of payments crisis[11].

The authoritarian way by which the neoliberal school of thought commenced its campaign for a free market orientated economy was seen as a major threat to the welfare of the European economies *per se.* Among a number of scholars who did not subscribe to the neoliberal dogma, Ajit Singh(1997) maintains that "it is not that liberalization and globalization promote economic growth, but rather faster growth of production and employment are essential for sustaining the new liberal economic order"(p. 13). In addition, he observes that liberalization and globalization are to be held responsible for the slowing down of economic growth in developing countries. Deregulation of domestic financial markets might be another key factor that contributed to the establishing of this new state of affairs[12]. The flirtation with monetarism in the 1980s has given rise to a new orthodoxy supported by a number of finance ministers and bankers throughout Europe. The essential

features of the new monetarism can be summarized as follows: the state should be deprived of the responsibility for formulating[13] economic policy; inflation is a monetary phenomenon and can be controlled through monetary policy; interest rates should be used to control inflation, preferably by an independent bank; the focus of the government should be on how to balance the budget rather than to influence demand; the level of unemployment fluctuates around a supply determined equilibrium (NAIRU); it is the imperfections in the labour market that have to be dealt with, if unemployment is to be reduced. In achieving macroeconomic equilibrium, contemporary orthodoxy regards the fight against inflation as the key objective of economic policy. In this context, public deficit and national debt have been branded as inflationary which have to be reduced promptly.

Table 1. Gross Government Debt (growth rates).

COUNTRIES	1961-72	1973-78	1979-91	1992-98
Germany	9.1	16.4	10.0	10.5
France	N/A	17.8	11.6	10.4
Italy	15.4	25.6	19.5	6.9
Netherlands	6.7	9.9	9.9	3.1
Belgium	8.7	12.7	12.2	3.3
Luxembourg	N/A	N/A	N/A	N/A
U.K	5.4	14.0	7.2	11.3
Ireland	N/A	27.7	15.2	2.8
Denmark	N/A	N/A	12.6	4.1
Spain	N/A	28.5	25.3	11.6
Greece	20.2	26.4	34.4	13.9
Portugal	9.6	37.2	30.6	6.1
Sweden	9.1	14.9	14.6	9.3
Finland	9.2	18.4	15.9	19.1
Austria	7.3	23.0	11.2	7.6

Source: OECD, Economic Outlook.

Chart (a). Gross Government Debt.

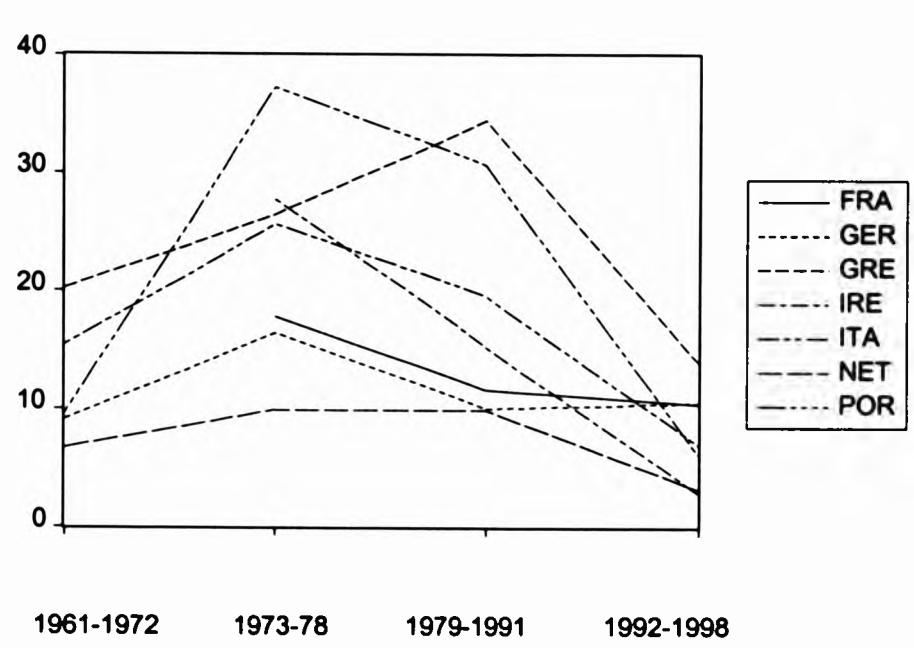


Chart (b). Gross Government Debt.

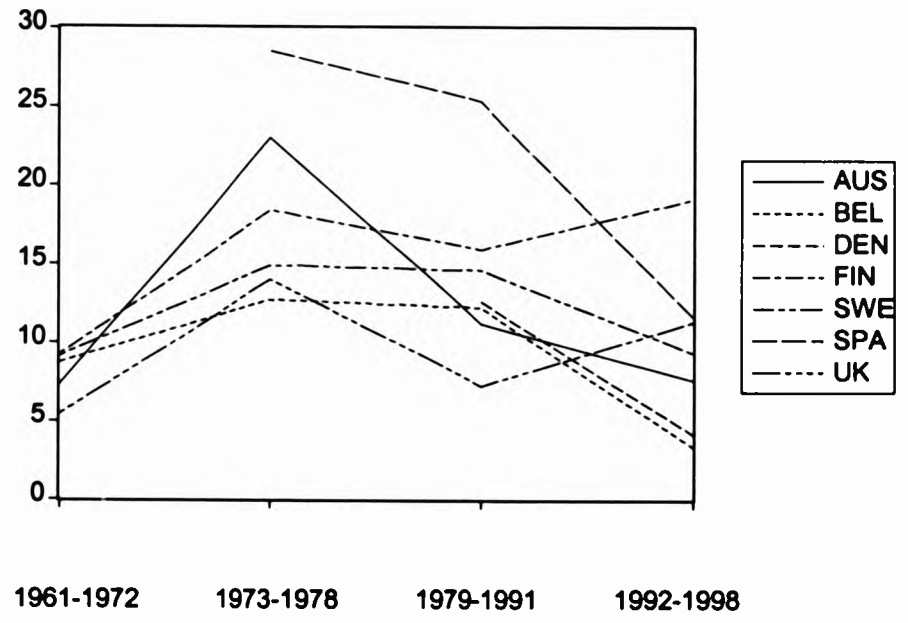


Table 1 in conjunction with charts (a), and (b), shows the pattern as well as the path that the growth rate of government debt within the EU region has followed. More

specifically, the upward trend that the growth rate of government debt exhibited over the first two periods, reflects the expansionary nature of economic policies adopted by the majority of EU member states. Over the two remaining periods the picture changes dramatically. The chief reason for such a shift could be attributed to the introduction of restrictive policies aimed predominantly at reducing budget deficits through public spending cuts. As we can observe, such cutbacks in spending are more pronounced in the relatively less developed economies (Greece, Italy, Portugal, Spain).

The new orthodoxy was embraced by those who wanted to restrict the role of the state, and its consolidation in the economic spectrum was only a matter of time. As a result, a new consensus was established throughout the European countries. Placing reliance on interest rates as means of conducting macroeconomic policy has become common practice in a number of countries in Europe. The stock of money is seen as exogenous to the private sector but subject to change by the authorities or the supply of money[14] being manipulated by interest rates. International pressure[15] to increase[16], rather than to lower, rates comes from every direction (Homer & Sylla 1983). Furthermore, the globalization of financial markets has given monetary policy a consistently deflationary bias.

The 1980s and 1990s have been marked not only by slower economic growth but by a much more unstable growth. Advances in technology, rather than the current economic regime, are believed to be held responsible for the poor economic performance in recent years[17]. The view that the pace of technological progress is a major threat to job creation has been paramount in a number of studies across the globe. However, emerging evidence for industrial countries refutes such contentions. As Boltho and Glyn (1995) stress, the

reason for much higher unemployment in the post-1980s period is not 'jobless growth', but rather a much slower rate of economic growth. Furthermore, in so far as technological changes take place, productivity picks up as the new techniques reduce the labour input required per unit output[18].

Leading academics of the subject such as Professor Freeman (1989) suggests that the rapid advances in information and communication technology in fact constitute a new technological paradigm. This is not only because these innovations have led to the introduction of new products, but, more importantly, because they have the potential of reducing costs of production and raising productivity in most existing industries. Therefore these technological changes are regarded as constituting a far-reaching technical revolution. Thus, as far as 'the supply side' is concerned, the new information technology 'provides' an enormous potential for increasing production[19]. However, the slow rate of growth of real demand and output over the last fifteen years has caused this potential not to be realized.

1.4 The failure of monetarism and its impact on employment.

The most conspicuous failure of the liberal economy in the recent decades has been with respect to employment[20]. Monetarist and free-market thinking was established as the predominant economic consensus and in effect begun to dominate economic policy within the Euroland. The notion that inflation could be avoided by controlling the money supply was not a sufficient answer to the soaring problem of unemployment. In addition, deregulation of labour markets added to, rather than mitigated, the problem.

After enjoying more or less full employment during the 1950s and 1960s, leading European countries were faced with the spectre of mass unemployment in the 1980s and

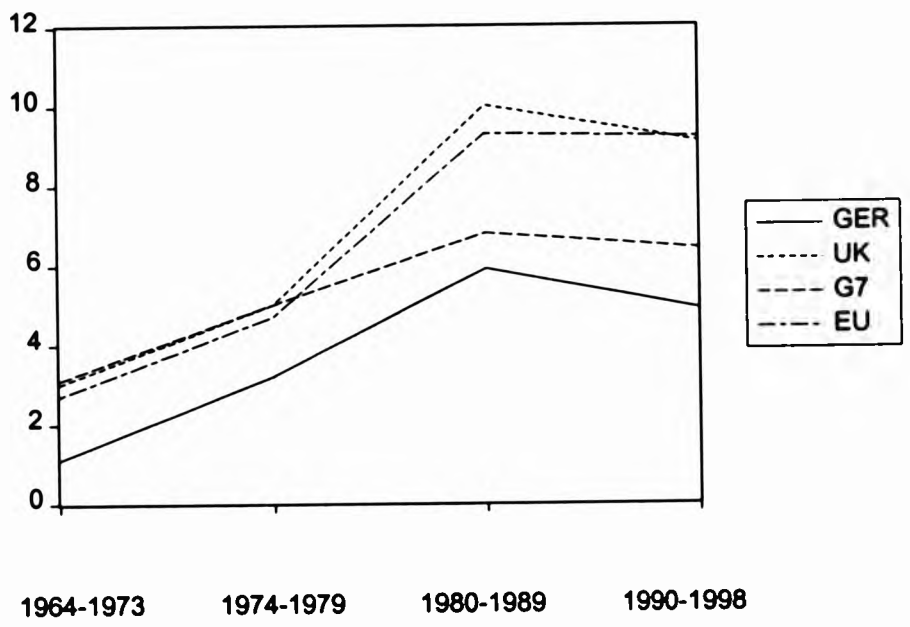
1990s. Table 1.1 and chart (c) demonstrate the extent to which the unemployment rate in European countries has increased from a little over 3 per cent in the 1960s to nearly 10 per cent in the 1990s.

Table 2 Standardized unemployment rates,1964-1998 (average annual % changes)

	1964-73	1974-79	1980-89	1990-98
Germany	1.1	3.2	5.9	4.9
UK	3.0	5.0	10.0	9.1
Total G7	3.1	5.0	6.8	6.4
Total EU15	2.7	4.7	9.3	9.2

Source: OECD (1995), Historical Statistics (Paris).

Chart (c). Standardized Unemployment Rates.



It is interesting to note that even at times when inflation was brought under control the problem of unemployment was still there, gathering momentum. Grieve-Smith (1992)

ascribes the latter firstly, to the fact that political attitudes had become more tolerant than to unemployment and secondly, to the irreversibility of rising unemployment when on the ascent. Moreover, high unemployment does not necessarily lead to government losing elections[21]. In 1974, Kalecki warned that, "The assumption that a government will maintain full employment in a capitalist economy, if it only knows how to do it, is fallacious."

An upward trend in involuntary unemployment and lower effective demand was a prevalent feature of the 1980s. Structural changes in international financial relationships and their consequent impact on the structure of domestic macroeconomic policies share the blame for the slowdown in the growth of demand[22]. The ensuing deep depression in the early 1980s reduced investment in productive industries and impeded its recovery by dampening expectations. The ability of the economy to generate full-employment effective demand was further weakened by a redistribution of income from the poor, most of whose income is consumed, to the rich who save a high proportion of their income and who have a relatively high import propensity[23].

Abundant undervalued labour[24] has allowed firms to compensate for organizational and managerial inadequacies, delay the scrapping of obsolete capital equipment, and engage in destructive price competition. Tarling and Wilkinson (1997), and Grieve-Smith (1992) point out that the absence of wage discipline means that technologically and managerially backward firms can survive, and this helps prevent more progressive firms from expanding their share of the market. As a result, the average level of productivity drops and a slower rate of introduction and diffusion of new techniques and products occurs.

Inequality[25] and poverty have detrimental effects on the balance of payments constraint, since resources are transferred to those with a higher propensity to import (Borooah, 1988). It is well-known that a great deal of the share of the income of the working poor is met not by the employers but by the government[26]. As a result, there is a considerable increase in the burden on public expenditure. Growing poverty and cutbacks in welfare[27] provisions have aggravated social trends towards, for example, more single-parent families, and have increased the incidence of destitution in such households. Moreover, emerging evidence of a strong relationship between unemployment (poverty, social exclusion) and rising crime[28], (declining physical and psychological health[29]), suggests that the more the problem of unemployment remains untreated the more detrimental to members of society it becomes.

1.4.1 Financial system and industry: A lesson still to be learnt.

The collapse of Bretton Woods laid the foundations for a financial system that was left to its own devices; a system under which exchange as well as credit controls were abolished, and restrictions on cross market access for financial institutions were scrapped[30]. Short-term interest rates provided the platform on which monetary policy was conducted and monetarism was established as the predominant doctrine.

Governments nowadays tailor policies to suit the interests of the financial sector. A credible government is one that pursues 'market friendly' policies, policies in accordance with what markets perceive as 'sound'. Any divergence from monetary targets has to be met with harsh financial costs, which in turn will result in a major financial crisis. In other

words, what actually determines the credibility of a government is the way that the speculative markets work.

In the 1960s, the way in which the international framework was managed encouraged the implementation of expansionary full employment policies as well as the adoption of measures to boost investment. Conversely, in the 1980s full employment policies gave way to policies favouring deregulation[31] and financial stability, which has led to investment being choked off by sky-high interest rates[32].

The notion that an economy's level of saving can have a profound impact on the pursuit of full employment, dominated economic analysis during the 1930s. The emergence of Keynes's 'General Theory' put an end to such claims, by setting in its place the argument, as Joan Robinson put it that 'firms are free, within wide limits, to accumulate as they please, and the rate of saving of the economy as a whole accommodates itself to the rate of investment that they decree' (1962, pp.82-3).

According to the Keynesian doctrine, stimulating investment, rather than seeking to increase the available pool of saving, is conducive to raising the level of output and employment. Even when policy focuses on financial markets and practices, the primary concern is not on saving behaviour , but rather on encouraging the channeling of funds towards productive activity and away from speculation (Pollin 1996).

The role of the financial system in any national economy is to "transform savings and investment and to allocate those funds among competitive users"(Zysman 1983: 57). It is important that the relationship between the financial institutions and industry is such that both contribute to rebuilding industrial capacity and to creating full employment. The savings that the financial system generates should be allocated to companies on favourable

terms to enable them to engage in investment activities. Capacity cannot expand nor output increase unless the latter argument holds. The European experience suggests that the conditions upon which the financial institutions have made capital available to industry over the years have been rather punitive[33]. As a result, companies are faced with one of the highest costs of capital in the world[34].

Immediate profitability is the key word that provides the impetus for the financial system to pursue its objectives[35]. "The privatization of risk imposed substantial strains on the domestic and international system. The need to absorb and cover foreign exchange risk demanded the creation of new financial instruments, which in turn required the removal of many of the regulatory barriers which limited the possibilities of laying off risk, and a restructuring of financial institutions."(Eatwell 1995, p. 278).

The instability in interest rates observed in domestic money markets has a negative effect on policy. More specifically, it jeopardizes any future co-operation between countries to fight unemployment as, with exchange rates fluctuating, the distribution of the gains of such a concerted strategy is highly uncertain. Nowadays, there is much less economic co-operation[36] between leading industrial countries. As a result, the financial markets have come to dominate. Moreover, the deflationary policies that these markets favour has caused the European economy to contract. Far more weight has been given to the perceived dangers of inflation[37] than to the need to obtain full utilization of resources. Even when the financial markets have sometimes been expansionary[38], their bandwagon and herd characteristics generate considerable instability for the real economy. According to Ajit Singh (1997) unrestricted[39] capital movements provide enormous scope for

destabilizing speculation, which in turn leads to high volatility of both monetary and real variables.

Investment is inclined to be affected by fluctuations of financial variables. In particular, investment is discouraged directly by the rising cost of capital, which is in part caused by volatility in financial variables. In addition, the overall uncertainty that increasingly characterizes the economic environment and the greater fluctuations in the components of final demand, have a negative effect on the corporate inducement to invest[40].

As Stiglitz (1994) has noted, unregulated financial markets are particularly prone to problems of co-ordination failure. Liberalized global financial markets have injured the economy in a number of interrelated ways. Moreover, the speed at which international financial transactions have grown is rather alarming[41]. Zysman (1983) maintained that a 'capital-market' dominated market system, similar to that of Great Britain, in which 'financial institutions tend to manage portfolios of stocks, spreading their risks across companies that they nurture through hard times' (p.63). Substantial evidence points towards a short-term focus on dividends and capital returns rather than on investment plans that will bear fruit in the long run[42].

Despite the continual endeavour of the state to promote economic growth by using various policies, its attempt to reform and come up with an effective industrial policy has been subverted by the fact that the state 'has never controlled the channels of borrowing and lending that would facilitate the selective manipulation of credit allocation by the state' (Zysman[43] 1983: 197).

Minsky[44] (1986) argues that, when an economy shows signs of recovery and full employment, 'euphoric expectations' take hold. It is then that the financial structure becomes increasingly fragile, as the growth rate of debt exceeds that of profits - for a given distribution of income between wages and profits, profit opportunities are constrained by the growth of productivity - whereas the extension of credit is not so constrained. An economy dominated by free capital markets, where government intervention is non-existent, is characterized by speculative[45] financial behaviour. Once the cycle has peaked, debt deflation and depression set in, which in turn create the condition for a return to financial robustness and recovery[46].

Hutton (1995) contends that the fundamental weakness of the British system is the fact that high cost of capital and fears of inadequate return in the UK have acted as the most effective deterrent to long-term industrial investment. Ingham (1984) posits that the City's commercial interests revolve around the "short term gains to be made in the trading of productive assets – in particular through take-overs and mergers – and not in the long term profitability of those units of industrial capital whose shares are bought and sold[47]" (pp. 62).

1.4.2 Effective demand: A key factor to redressing the balance.

Since 1960, European Union employment has increased by only 10 per cent, as opposed to an 80 per cent and 40 per cent increase in North America and Japan respectively. Evidently, the high rates of labour-force growth in North America and Japan have been matched by high rates of job creation. Of course, comparing rates of job creation does not mean much, as it would have been impossible for the European Union to create as

many jobs as North America, simply because the European rate of population growth was so much lower. The fundamental question is not why European job creation has been low in absolute terms, but why job creation in Europe did not keep pace with its rate of population growth.

There are, of course, a wide variety of factors that may affect these trends, including the age structure of the population, government employment schemes, 'labour-hoarding', and employment in the 'black economy'. Eatwell (1995) argued, that whilst these effects may have some influence, the most important determinant of the common experience of growing unemployment has been the slow-down in the growth of aggregate demand in the 1980s throughout the G7[48]. Moreover, he highlights the importance of labour-market policies by stating that "it is the impact of labour-market policies which determine whether there is any employment in excess if that which might be expected from the growth of effective demand"(Eatwell 1997: p.78).

During the 'Great Depression' government intervention was a key element in the fight against unemployment. In the post-war era, the promotion of full employment was seen as an incessant endeavour to implement macroeconomic policies designed to manage aggregate demand. It is common knowledge in the circles of economists that Keynes[49] and Kalecki[50] independently came up with the principle of effective demand. Their discovery[51] was based on the notion that the economy would not necessarily generate full employment of all resources. According to their theory, the reason for this was not some market imperfection, such as rigidity of prices or wages, but rather, insufficient effective demand. In other words, in capitalist economies, there is not market mechanism that could guarantee

full employment. Full employment is not feasible, unless some exogenous injection of demand is provided.

Unlike the labour-market flexibility approach, the demand growth strategy is a positive-sum game which benefits the rich as well as the poor countries. Thus, full employment in OECD countries and faster economic growth will help developing countries in several ways. Specifically, poor countries will gain from an acceleration in OECD growth through much the same channels by which they were disadvantaged by slower economic growth in industrial countries after the golden age. Faster OECD growth will have a positive effect on the demand for products of poor countries as well as on the terms of trade. It may also result in greater capital flows, both private and public from the rich to the poor countries. Other things being equal, all this should lead to faster growth of output and employment in developing economies.

The industrial world is faced with the problem of the creation of sufficient jobs with rising real wages. Solutions to the problem can be envisaged only if there is a sustained trend increase in the rate of growth of output and productivity[52] in these economies[53]. The main concern is how to bring about a sustained rise in the rate of growth of real aggregate demand without risking unacceptable inflation.

Currently, policies to fight unemployment that favour labour-market flexibility seem to be the reason behind the dismal failure of the economy to deliver. The intellectual basis of this approach is rooted in the concept of NAIRU[54]. The main cause of unemployment in terms of this theory lies in rigidities in the labour market and the provisions of the welfare state, which make it unattractive for people to seek work. (Layard & Nickell, 1986; Layard, 1991).[55] Hence increasing market flexibility can be achieved

through means such as deregulation, reduction of trade-union power, and the pruning[56] of the welfare state. In addition the whole concept of the NAIRU, which can be detected in the works of Milton Friedman (1968) and Edmund Phelps (1968), encouraged the idea that policy should be directed to establishing a minimum level of unemployment so that inflation[57] remains unchanged - in other words, forget about the achievement of full employment.

Recent OECD analyses of changes in structural unemployment in the 1990s draw attention to the implausibility of the rigidities story explanation. As Table 1 (see Appendix) demonstrates, according to the OECD, the non-accelerating-inflation-rate of unemployment (NAIRU) rose in most European countries in the 1990s. In some instances, the increases were large. Between 1990 and 1997, the estimated NAIRU, for example, increased 5.8 percentage points in Finland, 3.5 percentage points in Sweden, and 2.7 percentage points in Germany (OECD 1998, p. 9).) Yet, by the OECD's own assessment (OECD 1998), the 1990s were a period during which nearly all European nations reduced labor market rigidities. As labor market rigidities have not increased during the 1990s, they cannot possibly explain the dramatic increases in unemployment over the last decade.

As Ajit Singh (1997) claims, the facts concerning inter-temporal variations in unemployment rates and real wages in industrial countries are much more easily explained by variations in the rate of growth of real demand[58] rather than by the NAIRU[59] approach. Drawing on the latter, Galbraith (1997) believes that "the case for basing anti-inflationary policy primarily around the rate of unemployment was never persuasive.....One need not object to the NAIRU as a purely mathematical construct. After all, a steady inflation unemployment rate is merely an implication of models specified in a certain way" (p.106).

An alternative view, conceptualized by Keynes, is that a firm will expand its output only if it can be sure that it will be able to sell it. Keynes tried to conceptualise the involved uncertainty that money conveyed, by relating the demand for money as a store of value to uncertainty about future and showed how these features of the world in which we live affect investment, which is therefore subject to fluctuations: "It is not surprising that the volume of investment, thus determined, should fluctuate widely from time to time. For it depends on two sets of judgements about the future, neither of which rests on an adequate or secure foundation - on the propensity to hoard and on opinions of the future yield of capital assets" (C.W. XIV: 118).

The fact that capitalists engage in production activity in order to make profits, constitutes a fundamental reason why entrepreneurs can decide to keep money idle and the economy can experience unemployment[60]. The system's degree of liquidity preference is ostensibly, immediately, and directly related to entrepreneurs' expectation of profit, which is the driving force in a capitalist economy.

Employment will expand only if there is an increase in real demand[61] and output, not just because there is a cut in wages[62]. In the same line of argument, a reduction in wages[63] in a closed economy could, in principle, reduce real aggregate demand through its adverse effects on business expectations and investment; hence the overall consequence may be a fall rather than a rise in employment[64].

It is lack of demand rather than the need to cut the price of labour that inhibits the growth of output and employment. By lowering wages, purchasing power and costs are reduced at the same rate. Thus, it leaves unemployment intact. However, what is true about keeping real wages down is the fact that we can improve our competitive position

and thus increase, for example, UK employment (at the expense of others). Grieve-Smith (1996), as well as Grahl (1997), argue that practices of the kind should focus on exchange rate policy rather than pay-bargaining one[65].

1.4.3 Manufacturing. Is there still hope?

In Europe, manufacturing employment has been dwindling alarmingly[66]. More specifically, over the period 1976-86 the decline in manufacturing employment in EC accounts for a fall of almost 5.5 million jobs. The promotion of free-market orientation policies by European governments has taken its toll. Currently, attempts to restore competitiveness through product and labour deregulation have exacerbated the problem. Policies targeting the expansion of demand for manufacturers as well as industrial policies to improve competitiveness are conspicuous by their absence. Under-investment in manufacturing is a potential reason behind the rise in unemployment. Such a process of deindustrialization[67] could have detrimental effects on the entire European economic life leading to additional hardships for its population.

In the UK, the fact that 1980s growth was skewed towards services, particularly financial services, raises the question of whether manufacturing matters after all. For Kitson and Michie (1996) the answer is 'yes, it does matter'. Their affirmative answer is based on the notion that the UK economy requires a large and competitive manufacturing sector in order to generate sufficient exports to pay for necessary imports. Moreover, both healthy manufacturing and reliable services are conducive to economic prosperity.

It is interesting to note that the decline in manufacturing, and particularly manufacturing employment, and the corresponding relative growth of services, is a predominant feature in both slow - and fast - growing countries (see Petit 1986).

Trying to establish the causes of this rapid decline in manufacturing employment, a number of studies, including those by Fuchs (1968), Baumol (1967), Saxenhouse (1985) and Summers (1985), arrived at the conclusion that productivity[68] differences are the main source of the decline in manufacturing employment, although others, such as Marquand (1979), dispute that services have lower productivity[69]. Furthermore, the relative decline in manufacturing and the relative growth of services stems from the changing structure of demand as income increases[70]. Another explanation for the relative decline[71] in manufacturing is the changing source of service provision[72], with activities that were previously undertaken by firms increasingly being contracted out.

Although Kaldor (1972) retracted a previously held view that employment in services may restrict the labour supply for manufacturing[73] in favour of a demand constraint one, he retained the idea that services were not as dynamic as manufacturing[74]. This was rooted in the views of Lewis (1954), Cornwall (1977), and others, that 'manufacturing is an engine of growth'.

The extension of the market for manufactured products would lead through the benefits of economies of scale to increased competitive advantage and hence to increased economic growth. This will have a positive effect on the expansion of the service sector, in terms of both output and employment. Nonetheless, should full employment be attained, there must be sufficient demand for manufactured products.

A more comprehensive analysis of the channels through which employment in manufacturing has been affected will be conducted the following chapters.

1.5 Concluding remarks.

Economies throughout Europe have failed to deliver the prosperous economic future that the architects of the current economic systems had initially pledged to deliver. After the fixed exchange rate mechanism, established at Bretton Woods, had broken down, the world economy reverted to the prewar state of chronic mass unemployment. The prevalence of monetarist and free-market thinking among the political leadership of the industrial nations effectively ruled out any major structural reforms in the management of the world economy. Indulging in neoliberal-type policies to expand productive capacity and stir the economy towards recovery has been once again an elusive objective.

Over the past two decades the commitment to full employment has been abandoned and mass unemployment has manifested itself as being an integral part of the capitalist world. The adoption of tighter fiscal and monetary policies to combat inflation caused unemployment to reach unprecedented levels, which in turn has caused a number of social problems such as the growth of poverty, homelessness to grow at a prodigious rate. As a result, Europe's economic and political stability has been under threat.

In the 1990s, the 'globalization of finance' started pushing its roots even deeper into the economic world. Maintaining sound finance was the main preoccupation of many governments around the globe. The only way to achieve such an objective was through the implementation of deflationary policies, of which the economic repercussions have been acute.

In Europe, industrial competitiveness has been sacrificed to inappropriate or inflexible exchange rate policies. In the 1980s, when demand was well below full employment levels, capacity throughout the EU was eroded by closures and inhibitions on investment in additional capacity. NAIRU[75], the idea of an inverse[76] causal relationship between levels of unemployment and price inflation, is now so firmly entrenched that central bankers look with deep suspicion at any downward movement of unemployment, from any level, as signaling potential inflation and the need to increase interest rates.

In short, it has become rather apparent that the austere economic conditions experienced by the EU population over the last decades has been the result of tight economic policies implemented by the proponents of the free-market orthodoxy. Pursuing an alternative agenda, in which demand side policies topped the priorities, might be a policy option whose fruits are waiting to be reaped.

Appendix

Table 1. OECD Estimates of Structural Unemployment in the 1990s

Countries	1990	1997	1990-97(change).
Finland	7.0	12.8	5.8
Sweden	3.2	6.7	3.5
Germany	6.9	9.6	2.8
Greece	8.2	9.8	1.6
Italy	9.7	10.6	0.9
France	9.3	10.2	0.9
Belgium	11.0	11/6	0.6
Austria	4.9	5.4	0.5
Spain	19.8	19.9	0.1
Portugal	5.9	5.8	-0.1
Denmark	9.2	8.6	-0.6
UK	8.5	7.2	-1.3
Netherlands	7.0	5.5	-1.5
Ireland	14.6	11.0	-3.6

Source: Author's analysis of OECD (1998).

Notes:

[1] The term "leaden age", which has been borrowed from Pollin (1997-1998), essentially, signifies the poor economic performance and financial instability that has permeated the capitalist economies for the past three decades.

[2] In this context unemployment is perceived as the efficient outcome of market activity. Unemployment is at its natural rate when people's expectations about wages and prices are correct. It is only when people's expectations about wage and price movements are incorrect that unemployment deviates from its natural rate (for a more comprehensive analysis see Lucas (1972,1975); Phelps, (1994); Friedman (1968)).

[3] This new co-operative model arose partly out of the punitive experience of the Great Depression. It also owed a great deal to the particular historical conjuncture which prevailed at the end of World War II in Europe, which involved a tension between the liberal economic order represented by the USA and the controlled planned economy represented by the Soviet Union.(See further Singh 1995b).

[4] Internally, the long period of full employment increased the power of workers and their successful wage demands undermined the social compromise with employers. Similarly, international co-ordination became much more difficult with the relative economic decline over time of the USA. The continuation of the golden age would have required institutional reforms to address those difficulties. However, after the second oil shock of the late 1970s, instead of seeking such renewal of the golden age model, the governments of industrial countries led by the USA and the UK turned decisively towards the alternative model of market supremacy and of external and internal liberalization and globalization.

[5] As it finally emerged, the Bretton Woods agreements, still had a deflationary bias. However, because of the activities of the USA government, this bias did not turn out to be a problem during the golden age. The USA provided adequate liquidity to the international economy to permit high rates of growth of world demand and output. This was done in the early post-war years through the Marshall Plan and subsequently through American military expenditures and foreign investment abroad. The latter policies, however, contributed to the persistent US balance of payments deficits in the 1960s, which ultimately led to the demise of the Bretton Woods system in 1971 with the ending of the gold convertibility by the USA government.

[6] However, the Bretton Woods regime did not eliminate foreign exchange crises. Speculation against currencies expected to devalue were still present; as well as deflationary policies prescribed, by the IMF, for countries in difficulties.

[7] For Grieve-Smith (1997), the break up of the Bretton Woods regime was a consequence of firstly, the lack of intergovernmental consensus on changes in the exchange rates when the existing structure is no longer appropriate and secondly, the growing importance of capital movements in affecting exchange rates. Moreover, Grahl (1997) perceives, firstly the position of the US as the centre of the system and secondly the increasing constraints on national policy as two major forces which subverted the arrangements established at Bretton Woods.

[8] Braunstein and Epstein (1999) invoke Milberg's (1998)definition of 'globalization' – globalization is the deepening of international economic relations – to argue that it is erroneous to see "globalization as synonymous with marketization and economic

liberalization. Economic liberalization is one form globalization can take, and indeed, that is precisely its form in the current era – globalization is occurring in a neoliberal regime" (p.115).

[9] Free and flexible internal and external markets for goods, services and capital are thought to be the best vehicles for achieving an efficient allocation of resources, promoting competitiveness and technical progress, and hence economic growth. The role of the state in this analysis is confined to providing a stable macroeconomic environment and creating conditions for private enterprise and competitive markets to operate effectively.

[10] The British chancellor of the exchequer at the time.

[11] See World Bank (1991). For a critical analysis of the World Bank see for example Singh (1994,1995a) and Fishlow (1994).

[12] By 1980, leading industrial countries had abolished all exchange controls and there was a more or less free movement of capital between them. Although liberalization has not encompassed free international movement of labour, it is significant that there has been considerable deregulation of the domestic labour markets in many industrial countries in the 1980s. This has involved reductions in welfare entitlements, diminution of trade union rights, de-indexation of wages, etc. Again, the speed and degree of labour market deregulation has varied between industrial countries.

[13] The rationale behind this belief lies in the notion that governments tend to foster policies that have stimulating short-term effects.

[14] Arestis, McCauley & Sawyer (1999) argue that the notion of using interest rates to manipulate the supply of money may be flawed. In particular they sustain that banks can play a significant role in affecting the supply of money. The most obvious route that money enters the system is through its creation by banks as a response to demand for loans (credit) by the private sector.

[15] A case in point is when UK was in the ERM.

[16] Sawyer (1999) argues that "these high interest rates can be seen to have resulted from the general pursuit of tight monetary policies in a context of at least quasi-independent interest rate determination where relative interest rates (between countries) have an impact on the pattern of exchange rates" (p.2)

[17] Although the average rate of economic growth has halved in the recent period compared with the golden age, productivity growth in this period has fallen even more sharply. As a consequence, the employment elasticity of growth has risen, not fallen, i.e. a 1 per cent increase in GDP growth leads to a greater increase in employment now than during the 1960s (Boltho and Glyn 1995).

[18] Since average productivity has fallen, rather than risen, the pace of achieved technical progress has been slower rather than faster than before.

[19] Freeman et al. (1995) show that those countries in East Asia that have grown very fast in the recent period are the only ones which have been able to use the new technology at all effectively.

[20] There is however a silver lining in the economic record recently. Despite the acceleration of inflation in the 1970s, triggered by the first oil shock, the inflation rate in industrial countries is now as low as it was in the 1950s and 1960s. The economic policies

of 1980s and 1990s can be credited with containing price increases and bringing inflation down to its golden age levels.

[21] One reason for this must be that while initially increases in unemployment may be spread fairly widely across the community, eventually they become concentrated on the most disadvantaged and least vocal sections of society. Higher unemployment remained acceptable to what J.K. Galbraith has called 'the 'Contented Majority', at least until they become a prey to general and pervasive insecurity.

[22] Of course this slow-down in the growth of demand has also been attributed to a number of other factors such as the growing profit squeeze at the end of 1960s, the impact on the growth of demand of the rise in raw material prices, etc. A more comprehensive analysis can be found in 'The rise and Fall of the Golden Age' in S.Marglin and J.Schor (eds.), The Golden Age Of Capitalism: Reinterpreting the Post-war Experience.

[23] An extensive analysis of how aggregate demand is adversely affected by shifts in the distribution of income can be found in Kalecki (1942) – Kaldor (1955/56).

[24]The growing availability of undervalued labour and high unemployment create the environment in which entrepreneurship takes the form of cutting pay, worsening the employment conditions, and the exploitation of low-paid labour. This can be expected to crowd out the 'high road' to competitiveness requiring product and process innovation and a highly skilled, well motivated and co-operative work-force. The earliest analysis of the role of unemployment as a tool to discipline workers and in effect reduce their power can be found in Marx's notion of the *reserve army of labour*. The surplus of unemployed workers served the function of holding down wages.

[25] Emerging evidence suggests that the gap between the less well off and the most prosperous has widened (Symes 1997, Fagerberg and Vespagen 1996).

[26] Astonishingly enough, while nations and their politicians seem to feel sorry about unemployment, and proclaim themselves passionately mobilized against it, economic organizations such as the OECD responsible for promoting economic growth and economic stability publish reports claiming that "to obtain a given adjustment of labour costs, a higher level of conjectural unemployment will be necessary"(OECD, Jobs Study, Paris, June 1994).

[27] At this point it is worth noting the vigor with which economic organizations such as the World Bank pursue policies that aim at reducing the period of the benefit payments: "...the eagerness of the workforce to accept low-paid jobs depends partly on the relative generosity of unemployment benefits. All countries should reduce the period of benefit payments when it is too long, or tighten up the conditions which benefit is granted"(World Bank, World Department Report: Workers in an Integrating World; Oxford: Oxford University Press, 1995). Moreover, in the same line of argument Gary Becker, winner of the Nobel Prize for Economics, deplores the generous nature of the welfare benefits disbursed by certain European governments, which like France have extravagantly raised the minimum wage of 37 francs {=£3.70}. For more on the generosity of unemployment benefits see also Snower (1997).

[28] Abel and Bernanke (1998) found that an increase in unemployment of 1 percentage point that lasts for 6 years is correlated with 3,300 new prison inmates. For more on the relationship between unemployment and crime see also Freeman (1996). Phelps (1985)

attributes such a rise in criminal activity, especially in the USA, to the short period that an unemployed person is entitled to unemployment benefit. However he is swift to criticize the unacceptably lengthy periods for which a European citizen can claim unemployment benefit.

[29] Abel and Bernanke (1998) found that an increase in unemployment of 1 percentage point that lasts for 6 years is correlated with 20,000 more deaths from heart disease, 4,000 new admissions to mental hospitals, 920 suicides and 650 homicides.

[30] Felix (1997-8) posits that international capital mobility is incompatible with full employment and economic growth.

[31] Coackley & Harris (1992) argue that deregulation in financial markets laid the foundations for Thatcher's economic policy. A policy that sought to promote international competitiveness of the City, and to boost its profitability against other financial centres, so as to enable it to take the lead in a financial world that was fast changing under the impact of internationalisation.

[32] "Since modern capital markets came into existence, there have been such high long-term interest rates as we recently have had all over the world" (Homer & Sylla 1983, p.4).

[33] However, this is not the case for Germany.

[34] This is directly attributable to the domination of the UK's financial system by the interests of the City of London which allocates finance on the basis of prices established in competitive capital markets, dominated by the desire for liquidity, that is, "the ability to be able to reverse a lending or investment decision, and return to the status quo ante of holding cash" (Hutton 1995, p.132).

[35] Such behaviour has affected a great deal the FOREX markets. It is estimates that before the collapse of the Bretton Woods regime about 90 per cent of all foreign exchange transactions targeted trade and long-term investment. The picture nowadays has a totally different composition. In particular, more than 90 per cent of the financial transactions are speculative. Such a shift in the financial mood is bound up with the abandonment of fixed exchange rates. A fixed exchange rate regime such as Bretton Woods provided a remarkable stability.

[36] There is still the IMF, but its role has long been restricted to monitoring and disciplining the Third World. Leading industrial countries, which have effectively been outside the IMF disciplines, only occasionally and episodically co-operate on an *ad hoc* basis.

[37] Eatwell (1995) outlines the process by which such market psychology becomes predominant. This is of course the Keynesian view of price formation on the foreign-exchange market.

[38] For a more detailed approach see Rodrik (1994) and Krugman (1995).

[39] Arguably, the economic crisis experienced by the East and South East Asian countries (July 1997-February 1998), is ascribed to the liberalization of the global financial markets, and particularly to the deregulation of the capital account which many Asian countries had undertaken previously. For more on the possible causes of the Asian crisis see Krugman (1998); IMF (1997); Stiglitz (1998a); Palley (1999).

[40] Despite the rise in profits in the 1980s and booming stock markets, the trend rate of growth of investment in industrial countries since 1980 has been about half of what it was

in the golden age. The fluctuations in interest and foreign exchange rates are by themselves likely to have been significant in this outcome.

[41] According to Felix (1997-8), 'international financial transactions have grown thirty times as fast as the growth in international trade' (Davidson, 1998. p.819). According to Michie (1999) the effect of the growth of speculative capital movements on exchange rates has been disastrous to global economies. The introduction of measures, such as a Tobin tax or other forms of financial regulation, are therefore needed to redress the balance.(Arestis and Sawyer (1997).

[42] Such an institutional arrangement contrasts sharply with the 'credit market' - based systems which had prevailed in Japan, France, and Germany prior to the 1980s wave of financial innovation and deregulation. In these systems, financial firms interacted closely with non-financial firms and the state in forging commitments to long-term investment projects.

[43] Zysman's analysis is founded upon the identification of three distinct types of financial systems, namely a system based on capital markets with resources allocated by prices established in competitive markets, a credit based system with prices administered by government, and a credit-based system dominated by financial institutions (1983: 55).

[44] According to Minsky & Whelan (1996-97) "stable exchange rates; an accommodative mono-reserve set-up; and an international lender of last resort", are conducive to a healthy financial system (p.166).

[45] As Forrester (1999) points out, "derivatives, which are now invading the economy, reduce it to casino games or bookmakers' practices.....Now this new form of economy no longer invests: it bets" (p.80).

[46] Minsky's position is perfectly consistent with that of Schumpeter and Marx; depressions are functional: they are a destructive but necessary mechanism – the 'slaughtering of capital values' as Marx put it – that returns financial structures to balance.

[47] In 1994, for example, the London Stock Exchange did provide a record £11.6 billion of new funding for companies, but this pales into insignificance compared to its £607 billion turnover in British and Irish shares and the £717 billion turnover in overseas equities (Guardian, 31 Jan. 1994).

[48] In a study on the Swedish unemployment, Meidner (1998) ascribes the alarmingly high levels of unemployment to the lack of policies to boost demand.

[49] Joan Robinson's conviction that Keynes should have started from Marx derived from her comparison between Keynes' and Kalecki's theories of effective demand. She held that Kalecki offered more general and more robust results than Keynes because he had the advantage of being little influenced by orthodox economies and well acquainted with Marx. One of the factors that, for Joan Robinson, made Kalecki's theory of effective demand more satisfactory than Keynes' was that the former started from the Marxian schemes of reproduction.

[50] Kalecki's contribution was largely ignored, especially in the mainstream, while those of Keynes were sanitised and introduced into the orthodoxy in a rather 'bastardised' version with the emphasis on market imperfections. Despite the similarities of their conclusions as to the inability of market economies to generate full employment, Keynes and Kalecki emerged from entirely different backgrounds and from very different intellectual traditions.

[51] At the time, their discovery was contrary to all previous economic thought with the possible exception of Marx and the heretical under-consumptionists.

[52] Borooah (1996) stresses the importance of productivity growth by illustrating how a country could secure an increase in real wages equal to the its rate of productivity growth without any loss of competitiveness.

[53] See further Boltho and Glyn (1995): Singh (1995b).

[54] Several economists have, however, observed that the NAIRU analysis is incompatible with some of the most important stylized facts about both labour market characteristics and outcomes in industrial countries during this century. In the highly regulated golden age, when labour markets were characterized by far greater rigidities than they have been in the 1980s and 1990s, leading European countries enjoyed more or less full employment with moderate inflation for more than two decades. By contrast, in the recent period these countries have been afflicted with mass unemployment. These are quite the reverse of the outcomes which the NAIRU theory would predict for the two periods. Similarly, Matthews and Bowen (1998) observe that real product wages rose more slowly and there was greater labour flexibility in the 1930s in the UK as compared with the golden age, and yet the former period witnessed mass unemployment and the latter full employment.

[55] The importance of education and training has recently been emphasized by endogenous growth models where the growth rate of productivity is associated with the level of education. An educated and motivated work-force is able to facilitate the development of, adapt more easily to, and exploit more fully new processes and techniques of production (Romer, 1986; 1990, Lucas, 1988).

[56] Madsen (1998) applied a model developed by Layard and Nickell (1986), which explains movements in unemployment rates largely by changes in labor market rigidity, to the unemployment path in OECD nations over the period from 1960 to 1993. The study found that the coefficients of the variables measuring the generosity of unemployment benefits were insignificant and that the model could explain less than 20% of the increase in unemployment in the OECD over this period.

[57] Despite the fact that real growth in the USA hit 4.5 percent in the last quarter in 1994 and unemployment dipped to 5.4 percent in December, the Federal Reserve decided on the first of February to increase interest rates for the seventh time within a space of one year. Evidently, the reason behind such a decision was to control inflation. (For a more comprehensive analysis on issues concerning the NAIRU see Eisner 1995; Galbraith 1997).

[58] The main reason for full employment with rising real wages in the golden age was that real demand in industrial countries was increased at a rate of nearly 5 per cent per annum, almost twice the trend rate of growth in the 1980s and 1990s. At an intellectual level, the main weakness of the NAIRU approach is that it is rooted in microeconomics and is based on a partial equilibrium approach.

[59] Ormerod (1994), comes up with some interesting results, regarding the correlation of inflation and unemployment. In his study, out of the nine countries concerned (Japan, Germany, France, Italy, the UK, Belgium and the Netherlands), in only three(Germany, Japan and the Netherlands) does the correlation have the postulated negative sign and only in the first two of those is the correlation significant at the 5% level. In the other six countries, the point estimate of the correlation is actually positive and in Sweden and the

US this positive correlation is in fact significant at the 5% level. The results are very similar regardless of whether the unemployment rate itself or its log was used. *Conversely, the simple correlation between the change in inflation and the change in the log of the unemployment rate gives a negative sign in all nine countries, five of which are significant at the 5% level.* The aforementioned empirical work by Ormerod raises serious doubts not only about the stability of any negative relationship between inflation and unemployment but also about the very existence itself of any such relationship over time.

[60] Sardoni (1997) attempts to gain an insight into the complex relationship between the decisions that drive entrepreneurs to invest and produce, and the demand for money. Sharing the same view as Keynes, he perceives the rate of interest as exogenously determined by given money supply and the liquidity preference of the public; this along with entrepreneurs' long term expectations, determines the level of investment, output and employment. "The demand for idle money is no longer directly related to entrepreneurs' expectations concerning profits but to the speculative motive, i.e. the object of securing profit from knowing better than the market what the future will bring forth"(C.W. VII: 170).

[61] Coen & Hickman (1988) argue that "the extent of recent output gaps in the European countries, together with the observation that real wages may not be much altered by demand management, lead us to conclude that there is substantial room for demand expansion to reduce unemployment....."(p.193)

[62]Scarth (1996) demonstrates graphically how a wage cut causes income to be redistributed from labour to capitalists. If capitalists have a lower propensity to consume than workers, the demand for goods shifts further to the left, leading to further declines in output and employment.

[63] According to the Keynesian theory, there is one important mechanism whereby the deflation caused by the reduction in wages may lead to increased employment, via the influence on the interest rate. The reduction in prices will lead to a reduction in nominal income, which reduces the transactions demand for money. This will reduce the rate of interest. With a given marginal efficiency of capital schedule, this will lead to an increase in investment, thereby increasing employment. This mechanism which is known as the Keynes effect, allows a reduction in money wages to have a positive influence on employment. "It is therefore on the effect of a falling wage - and price- level on the demand for money that those who believe in the self-adjusting quality of the economic system must rest the weight of their argument" (C.W. VII:266).

However, Keynes warns that there are serious limitations to this adjustment mechanism. First, quantity of money should be fixed and not endogenously determined as a function of the level of wages, economic activity or prices. Second, the mechanism can be seen as the same as using monetary policy to expand the money supply, which would be a preferable option. "In any case both are limited, in that a moderate change may prove inadequate, whilst an immoderate one, might shatter confidence even if it were practicable" (C.W. VII:267). In other words, the marginal efficiency of capital schedule is unlikely to remain stable during the deflationary process.

[64] See also Michie and Wilkinson (1995) on this point.

[65] In the situation where virtually all industrial countries are suffering from heavy unemployment, such beggar-my-neighbour policies do not represent an acceptable solution. Exchange rate adjustments should be limited to the needs of the balance of payment and not regarded as a means of exporting unemployment.

[66] The share of employment in manufacturing fell in the decade 1976-86 from 22.8% to 19.1% in the US, from 25.5% to 24.7% in Japan and from 28.9% to 24.4% for the EC. Out of all of the EU countries only Greece and Portugal avoided a fall in manufacturing employment, with the UK experiencing the most extreme cut.

[67] There has been a lot of effort lavished in trying to establish the determinants of deindustrialization. Is it the shift in consumption patterns or the differential productivity growth that have to be investigated, should some illuminating evidence come to light? Michie and Wilkinson (1994) assert that manufacturing employment in the EU region on no account must it be ascribed to shifts in consumption patterns nor to other sector's requirement for labour. They argue that the loss in manufacturing jobs has been accompanied by an increasingly adverse balance of trade in manufactures and by a rise in unemployment. In the same line of argument, Ajit Singh (1987) stresses that a balance of payments constraint is the result of the distribution of output between sectors. Therefore, relative shares of output and employment even in absolute levels can get affected.

[68] When the concept of disguised unemployment (defined as low productivity employment as compared to manufacturing productivity) is employed to estimate the unemployment we end up with totally different result, due in the main to the fact that, in general, employment growth is not in the manufacturing sectors but in services whose productivity lags that in manufacturing (Robinson 1937; Eatwell 1995).

[69] There are substantial difficulties in measuring productivity in services, as in most cases no physical output is produced.

[70] It has been argued that, as their income elasticity of demand is greater than one, the growth in demand for services will exceed the growth of income. Gershuny (1978), for example, pointed out that in Britain wealthier households spent a greater proportion of their income on services; such relationships, however, seem to be unstable over time and suffer from definitional problems, as much of this service expenditure is on associated goods. Fuchs (1986) argued that the income elasticity of demand services was only slightly greater than that for other products and was not a major explanation of the growth of the service sector. Similarly, Baumol et al. (1989) reject the demand explanation for the USA, as during the past few decades manufacturing output has risen as fast as output of services.

[71] An interesting approach to the declining trend in manufacturing is offered by Wood (1994) where he elaborates on the notion that there is a shift of manufacturing investment from North (developed countries) to South (developing countries) due to cheap labour.

[72] Fuchs (1968) found that changes in intermediate service production in the USA accounted for 10 per cent of the total expansion of service sector employment.

[73] Hence his advocacy for Selective Employment Tax.

[74] For Kaldor (1972), manufacturing acts as an engine of growth as it exhibits increasing returns while services are characterized by constant returns. This proposition may be too simplistic as increasing returns are likely to exist in services (despite problems of measurement). This does not, however, diminish the importance of the cumulative

causation analysis for understanding the diverging economic performance and prospects of different countries.

[75] NAIRU thereby becomes a mechanism by which expected inflation is converted into actual unemployment by policy intervention. For more on issues concerning the NAIRU as a reference point, see Karanassou & Snower (1997); Adams & Coe (1990); Gordon (1988).

[76] Eisner (1995) produced evidence suggesting that the whole NAIRU concept might be fundamentally flawed. More specifically, his findings point towards a different relationship according to which reductions in unemployment below the NAIRU equilibrium point, cause inflation to follow suit.

Chapter 2

European Unemployment in View of The Maastricht Convergence Criteria

2.1 Introduction.

Despite the commitment of EU member states to the goal of economic and monetary union (EMU), a debate over the matter continues to rage. For the entire of the EU region the convergence criteria implied by the Maastricht Treaty are the sole source of economic policy targets. The strict deficit and debt restrictions provide a new contractionary framework on the basis of which national budgets are not allowed to be used as means of offsetting distortions within the EU. In the absence of an effective employment policy a number of commentators have been swift to speculate on the future of such economic venture. "The problems arising from unemployment are not only economic problems of inefficiency arising from wastage of human resources, rising public sector deficits and possible monetary instability arising from this but also an increase in social tension and social cost in terms of ill health, increasing poverty, family and community breakdown, and arguably increasing crime levels" (Symes 1995, p.1).

This chapter focuses on issues relating to European unemployment in view of the Maastricht convergence criteria. More specifically, in section 2.2, we very briefly present

some previous plans, made by EU countries, for monetary integration and identify the major reason why the member states proceeded to ratify the Maastricht treaty. Section 2.3 touches on the controversy surrounding the credibility of the convergence criteria in promoting conditions for full employment. Arguably, the growing polarisation of the debate over such a venture has caused a lot of speculation to emerge. For the lingering doubters the single currency will have an adverse effect on the economic life of all member states; a European super-state endowed with enormous powers will impose a crippling burden of regulatory and other costs on Europe's economies; economic problems such as unemployment, which has been plaguing the lives of millions of people across Europe, will persist due to the restrictive policies that are required to meet the criteria set by the Maastricht treaty and to advance to the ultimate objective. On the other hand, many of its proponents regard EMU as conducive to the creation of a stronger EU with greater economic, political and social cohesion. They maintain that without such a union, European economies will remain divided and weak, unable to compete internationally with the low-wage economies of Asia or with the large high-wage economy of USA.

In section 2.4, a close look at some statistical tables, illustrating the behaviour of some significant economic variables over the period 1960-998, enables us to visualise the extent to which the deflationary policies that were implemented by all member states have affected their economies. Section 2.5 attempts to gain a further insight into the European Central Bank (ECB) and its endowed power to set monetary policy. In section 2.6 the reasons why fiscal policy is still a policy instrument that can be used to eliminate unemployment are spelled out. In section 2.7 a preliminary empirical exposition of some regression results provides some indicative evidence of the extent to which the policies

implied by the convergence criteria have influenced a number of economic indicators before and after the ratification of the Maastricht treaty, while finally, section 2.8 provides some concluding remarks..

2.2 Maastricht Treaty: Working towards monetary stabilisation in Europe.

After the collapse of Bretton Woods, countries within the European Community started making plans for monetary integration in Europe. With this objective in mind the first steps for a coherent economic policy in Europe were made. Inevitably, a series of plans followed. The Werner[1] Plan (1970) which proved to be a rather theoretical proposal, was superseded by an attempt to stabilise intra-European exchange rates, known as the "Snake[2]". However, by the late 1970s monetary stability proved elusive mainly due to the upward pressure of the D-mark. As a result the European Monetary System (EMS) emerged, together with one of its most important elements: the Exchange Rate Mechanism (ERM). The basic motivation for it was the demise of Bretton Woods, the failure of the dollar as an international standard, and the emergence in Germany of a "new national monetary self-interest in the goal of external stability" (Dyson 1994, p.98). The declared objective was to "create a zone of monetary stability in Europe" by stabilising exchange rates[3]; there was no mention of monetary union. Despite the unprecedented prestige that ERM enjoyed over the years, a series of exchange rates crises shook the foundations of the system and provided the platform on which the credibility of the system was questioned[4].

In 1989 the Delors Report argued that a set of binding fiscal rules, limiting the size and financing of fiscal budgets should be put in place if a monetary union was to be envisaged. What followed was the ratification of the Maastricht Treaty (December 1991)

by all member states, which, on the basis of ERM, made full monetary union the central goal of the EU[5]. To this effect, the Maastricht Treaty set up a number of prerequisites designed to limit access to countries that fulfilled some particular financial and economic criteria. These criteria have come in for a lot of criticism by a number of economists. As a result, questions regarding the future of such a venture have arisen causing a great deal of speculation to emerge.

In particular, the target figures- *a rate of inflation within 1.5 percent of the three best performing states, a budget deficit not greater that 3 per cent of GDP, total public debt*[6] *not greater than 60 per cent of GDP, and long term interest rates not to exceed the average of the three best performing states by more than 2 percentage points* - ratified by the Maastricht treaty have created a wave of uncertainty felt by all European Countries[7]. Is it the nature of these conditions or is it the outcome of the policies implemented to meet these criteria that have stirred such concern?

2.3 Convergence criteria and credibility.

Advancing towards an era where the seeds of globalisation have started to take root, in Europe the economic policy alternative appears to be revolving around the convergence criteria ratified by the Maastricht. The contractionary postulates – strict deficit and debt restrictions – that such a venture involves have wiped out any hope of resorting to a corresponding expansion of the EU budget to offset contractionary effects and resulting distortions within the Community. Moreover, rigidity in the labour markets has been regarded as the main cause of the upward trend of unemployment over the recent decades, and the blame for it is thus put on the unemployed, the employed and the unions[8].

Arguably, in the EU the introduction of such a stringent set of convergence rules may be put down to the accreditation that those rules received by the prevailing neoliberal economic dogma. One could therefore anticipate the emergence of an economic environment that conforms to the main postulates of neoliberalism, namely, the restriction of the role of the state in the economy, a fiscal restructuring in favour of firms and higher income groups, continuous increases in the share of profits in national income, abandonment of all restrictions to the free international circulation of capital, and further deregulation of labour markets[9].

It would be of great interest to note that the current European economic regime does not consider unemployment to be a problem that has to be fought with the highest priority; it is regarded as a side effect to be treated with social policy. The deflationary risks that the Maastricht rules entail are rather alarming. Governments have to foster austerity measures which, according to emerging evidence, will exacerbate unemployment, deficits and social tensions. Public deficits increase because of falling tax revenue: this is followed by tax increases and/or further cuts in public expenditure with an ensuing fall in effective demand, lower employment, lower income and tax revenue, higher deficits etc., thus continuing the vicious circle.

A common line of argument criticises the Maastricht Treaty for defining convergence in largely nominal, rather than real variables. This criticism draws heavily on the notion that participation in a single European currency should occur only amongst countries that exhibit a high degree of real convergence, defined in terms of productivity levels, real living standard, real growth rates and unemployment rates[10]. Amongst a number of economists who share the latter view, Boltho (1998), underlines the need for including a

target rate of unemployment in the criteria. However, the problem with this argument is that it would rule out any monetary unions, including existing ones (Currie 1996).

The deficit/debt provisions[11] as well as their successor - the Stability and Growth Pact - effectively block the use of capital markets to finance the costs of transition, forcing the costs onto taxpayers, and destroying new jobs in the process. Buiter et al (1993), argue that these "fiscal rules are badly motivated, poorly designed, and apt to lead to unnecessary hardship if pursued mechanically"(p.87).

The fostering of a single currency by EU countries clearly removes the possibility of variations in the value of domestic currency. However, the exchange rate instrument[12] may still be a potentially useful tool, even in conditions of great openness, provided it is not used too frequently and is accompanied by incomes policies. Changes in the exchange rate can allow a country to offset differential shocks and differences in economic performance. Goodhart (1990), stresses the importance that fiscal policy assumes once the exchange rate ceases to exist. He asserts that it is the only means that individual countries are left with, to influence their own macroeconomic policy. Furthermore, fears of ramifications for the entire economy, should the exchange rate be set incorrectly, have haunted the headquarters of Europe's economic bodies. Arestis and Sawyer (1996) contend that the prospective exchange rate should be compatible with a sustainable trade position and full employment. In particular, an overvalued entry exchange rate by a country experiencing high unemployment means a prolonged period of recession.

2.4 Maastricht vs. European unemployment.

Most European countries have signed up to the Maastricht Treaty, which requires some degree of fiscal contraction. Emerging evidence, in the form of projections undertaken by various economic institutions, suggests that meeting the deficit as well as the debt criteria by 1999 could result in a reduction in total EU employment, whereas abandoning the Maastricht fiscal criteria and reverting to previous levels of government deficits could raise EU employment[13]. Barrel, Morgan and Pain (1995) contend that economic growth will remain quite low, reflecting the impact of tighter fiscal policies and budgetary pressures arising from high levels of unemployment[14]. It is interesting to note that after Maastricht a poor economic performance has permeated all EU member states. Table 1 exposes the trend around which the growth rate of GDP has fluctuated before and after 1992.

Table 1. *GDP, growth rates (averages).*

COUNTRIES	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	4.5	4.2	2.5	1.5	4.6	1.7
France	5.7	5.1	3.2	1.8	2.7	1.6
Italy	5.3	4.9	3.7	2.3	2.7	1.1
Netherlands	4.5	5.2	3.0	1.1	3.0	2.5
Belgium	4.7	5.0	3.0	1.4	2.6	1.5
Luxembourg	3.2	4.2	2.3	2.2	5.9	4.6
U.K	2.9	2.7	2.2	1.2	2.6	2.2
Ireland	3.3	5.4	5.2	2.6	4.1	6.4
Denmark	4.6	3.9	1.9	2.0	1.8	2.3
Spain	8.5	6.1	3.6	1.0	3.9	1.7
Greece	7.8	7.7	4.4	1.5	2.2	1.6
Portugal	6.0	7.0	3.8	2.0	4.3	2.0
Sweden	4.7	3.6	1.8	2.0	2.2	2.4
Finland	4.5	5.2	2.2	4.0	3.9	3.6
Austria	4.3	5.0	2.9	1.9	2.9	1.7
USA	*5.2*	*3.2*	*3.4*	*2.3*	*2.4*	*2.6*
Canada	*5.8*	*4.5*	*4.4*	*2.6*	*2.6*	*2.5*
Japan	*9.4*	*9.7*	*3.9*	*3.5*	*4.5*	*0.8*
OECD countries	*5.2*	*4.6*	*3.4*	*2.7*	*3.5*	*1.9*

Source: OECD, Economic Outlook.

The growth rates of GDP for all 15 countries suggest that a substantial effort had been made to sustain economic growth during the first two periods. Public expenditure-type policies were the chief reason behind such achievement. After that, a spell of economic slow-down[15] (1973-78, 1979-91) gave way to a period of short-lived economic growth. Then the ratification of the Maastricht treaty heralded a period of low growth, mainly due to the policies implied by its target figures[16]. Likewise, the trend around which the growth rates of GDP fluctuated in the rest of the OECD countries as well as in Canada and Japan separately, resembles the one that characterizes the EU economies, i.e. a constant decline[17].

In the USA's case however, the growth rate of GDP appears to be exhibiting a rather different pattern. While in the first three periods the growth rate of GDP was declining, in the following periods, measures to ensure the stabilization and ultimately the growth of the USA economy were put in place; hence the upward trend in the period 1979 - 1998.

Buiter, Corseti and Roubini (1993) provide a summary of two earlier studies[18] by Giovannini & McKibbin and the IMF[19] in 1992, according to which a large output fall which was due to the reduction in inflation to German levels and high interest rates, will lead to a 'mild' recession.

In the 1960s, there was general agreement on the priority to be given to full employment policies. After that period, and at least until the mid-1980s, most European countries experienced a rather strong upward trend in unemployment[20]. Then unemployment fell sharply following the boom in the late-1980s, rose again during the recession in the early-1990s, and is now falling again. A representation of that behaviour can be observed by simply looking at table 2 below, which documents the average

unemployment rates over a period of time (1961-1998) for all 15 countries. A pattern of the fluctuation of this trend is also provided (see relevant figures in Appendix).

Such a pattern reinforces the notion that a recession is superseded by a boom, in which case job losses while during the downturn are not fully restored once the economy picks up again. The ensuing results is what many economists call 'hysteresis'[21]; an inevitable augmentation of the base of the labour force that is out of work.

Table 2 also exemplifies the extent of the unemployment rate before and after the ratification of the Maastricht Treaty.

Table 2. *Unemployment Rate(averages).*

Countries	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	0.7	1.0	3.1	5.5	7.2	9.6
France[22]	1.6	2.5	4.1	7.6	9.8	11.9
Italy	3.6	4.1	4.7	6.8	9.6	11.2
Netherlands[23]	N/A	1.3	3.4	7.3	7.4	6.4
Belgium	2.1	2.3	4.9	10.7	10.5	12.4
Luxembourg	N/A	N/A	0.4	1.2	1.5	2.7
U.K	1.6	2.5	3.7	8.1	8.5	8.1
Ireland[24]	4.9	5.4	7.3	10.9	15.9	12.9
Denmark	1.3	1.6	4.6	8.8	8.9	10.0
Spain[25]	2.4	3.0	4.4	14.9	18.9	22.0
Greece	5.2	4.3	1.9	5.0	7.5	9.9
Portugal	2.0	3.9	4.7	7.9	6.3	6.4
Sweden	1.5	2.2	1.9	2.7	2.2	7.5
Finland	1.4	2.7	3.9	5.2	4.9	15.8
Austria	1.9	1.5	1.5	2.7	4.6	6.0
USA	*5.2*	*4.6*	*6.6*	*7.9*	*6.2*	*5.9*
Canada	*5.1*	*5.2*	*6.9*	*9.5*	*8.9*	*9.9*
Japan	*1.3*	*1.2*	*1.8*	*2.3*	*2.5*	*3.1*
OECD Countries	*2.9*	*3.7*	*6.3*	*10.3*	*7.8*	*8.6*

Source: OECD, Economic Outlook.

A point worth noting is that after 1991, the increasing trend in the unemployment rate is uniform in most EU countries. Such a behaviour reflects the contractionary stance that EU governments took in view of the convergence criteria and their ensuing impact on

the labour markets. By contrasting this pattern of the unemployment rate in EU member states to the rates in the other OECD economies, Canada and Japan, we can observe that in the USA the picture is different.

More specifically, the US administration's endeavour to promote job creation bore fruit. A spell (1961 - 1984) of soaring unemployment was superseded by a period of job creation. Such an achievement can partly be ascribed to the boost that the volume of investment sustained through the adoption of measures such as the lowering of the interest rates. Under the current mandate the USA saw both its unemployment as well as inflation rates reaching a record low. Conversely, those countries whose central banks target inflation are experiencing double-digit low unemployment. Alan Greenspan (1997b) has expressed his opinion on the easing of monetary policy between 1990 1992 to achieve "a satisfactory recovery from the recession of that period" and the tightening of policy in the 1994 and 1995 to circumvent inflationary pressures.

During the 1990's in the USA the Fed has focused on both inflation and unemployment. As a result macroeconomic performance has been outstanding[26]. Both unemployment and inflation in the 1990s are at their lowest for 30 years. The observed economic growth and low inflation have benefited the stock market (see Fisher & Merton 1984, Boudoukh, Richardson & Whitelaw 1994). It is worth emphasising the 180 percent increase of the Dow Jones Industrial Average between January 1995 and August 1999.

Randall Wray (2000) however, sustains that "the U.S. expansion was self limiting because it was fuelled by unsustainable private sector deficit spending – mostly by households, which were spending more than their incomes, by a record amount. Earlier this

year, households began to reduce borrowing and spending, an inevitable retrenchment that the fed's rate hikes hastened by increasing debt service burdens" (p. 1).

2.5 ECB[27] and Deflation.

The emergence of the European Central Bank (ECB hereafter)[28] as an economic institution[29] responsible for setting monetary policy within the region is an additional feature that is worth probing. Modelled on the German Bundesbank, its principal objective is the elimination of inflation[30]; hence, the deflationary bias that characterises the economies of all EU countries (see Appendix 1 for a more comprehensive analysis).

Over the years a number of economists have attempted to provide some evidence regarding the connection between deflation and unemployment[31], and more importantly, the connection between the role of an independent central bank[32] and unemployment. In some recent empirical studies Hall & Franzese (1998), Cukierman & Lippi (1999) and Kilponen (1999a) all provide evidence of a positive correlation between central bank independence and unemployment[33]. Furthermore, different studies have concluded that a central bank with the capacity to set monetary and exchange rate policies separate from governments clashes with traditional demand management (Arestis, McCaulley & Sawyer 1999). Additionally, Kirshner (1998) underlines the lack of evidence as to whether central bank independence does in fact improve real economic performance[34].

The widely held view that the main role for macroeconomic policy is to control inflation[35], and that most unemployment is of a structural[36] rather than a cyclical[37] nature, in view of which demand management policy is of no use, appears to be influencing the conduct of economic policy in the EU . Such a belief implies that a potential ECB

intervention to stimulate demand[38] is ruled out. Any disequilibria in the labour markets should therefore be corrected by fostering policies that promote changes in regulation or reforms in trade union structures or education and training. If these measures fall through, then unemployment should be accepted as inevitable. Moreover, conducting monetary and fiscal policies independently may well result in cumulative instability[39] (Meade and Weale 1992).

As can be discerned from table 3, combating inflation[40] has been given top priority in the agenda of every EU government.

Table 3. CPI, *growth rates (averages).*

Countries	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	2.9	3.2	5.1	4.4	1.8	2.0
France	3.6	5.1	10.1	11.1	3.5	1.4
Italy	4.6	3.8	15.5	15.9	6.2	3.1
Netherlands	3.7	5.6	7.8	4.9	1.3	1.5
Belgium	2.8	3.8	8.9	6.8	2.7	1.6
Luxembourg	2.3	3.6	7.7	7.0	2.3	1.8
U.K	3.5	5.9	15.0	10.0	5.6	2.0
Ireland	4.0	6.9	14.7	14.6	3.6	1.9
Denmark	5.6	6.4	10.1	9.5	3.8	1.5
Spain	6.9	5.9	17.7	13.9	6.7	3.8
Greece	2.1	2.6	15.5	21.4	17.9	10.4
Portugal	2.4	6.0	21.9	22.7	12.5	4.9
Sweden	4.0	4.9	9.7	9.8	6.9	2.1
Finland	5.0	5.5	13.3	9.4	4.9	1.3
Austria	3.6	4.2	6.9	5.0	2.5	2.3
USA	*1.5*	*4.7*	*8.1*	*6.7*	*3.6*	*2.0*
Canada	*2.2*	*4.3*	*9.2*	*8.0*	*3.0*	*1.4*
Japan	*4.6*	*6.0*	*9.7*	*2.6*	*1.9*	*0.3*

Source: OECD, Economic Outlook.

A quick inspection of the growth rates of inflation for different periods suggests that for the period 1961-78 the rate of inflation is steadily rising whereas for the period[41] 1979-91 and 1992-1998 (after the ratification of the Maastricht treaty) it is subsiding. The latter period is characterized by the deflationary policies that EU member states have adopted so

that the prescribed target figure of 1.5 per cent is reached on time. This tendency seems to be uniform in all EU countries, with the exception only of the Netherlands and Luxembourg where the growth rate of inflation for the period 1992-98 has gone up by 0.6 percent and 0.4 percent respectively.

The deflationary bias of these policies has caused interest rates to go up and remain at quite a high level throughout the whole period (see table 4). As a result, the volume of investment (see table 5) suffered a major slowdown, which in turn had devastating effects on job creation. An identical pattern of an initial inflationary bias during the period 1961-1972 and a switch to deflationary policies during the remaining period is prevalent in the USA, Canada, Japan and the rest of the OECD countries as well.

Table 4. *Interest rates*[42]*, (Averages).*

Countries	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	6.4	7.5	8.3	8.6	7.2	6.5
France	5.7	7.8	10.4	14.1	9.9	7.0
Italy	5.3	6.3	11.2	16.9	12.3	10.0
Netherlands	4.9	7.2	8.5	9.4	7.3	6.5
Belgium	6.0	7.1	8.5	12.1	9.1	7.0
Luxembourg	N/A	N/A	N/A	N/A	N/A	N/A
U.K	6.0	7.9	12.6	12.9	10.3	7.8
Ireland	6.1	8.3	13.3	15.5	10.4	7.7
Denmark	7.6	10.5	15.6	18.2	10.3	7.4
Spain	7.4	8.7	10.8	15.7	12.9	9.3
Greece	N/A	N/A	N/A	N/A	N/A	N/A
Portugal	5.5	6.3	11.7	23.3	21.3	11.2
Sweden	5.8	7.1	9.1	12.5	11.7	8.6
Finland	7.8	8.0	9.5	10.6	10.7	7.5
Austria	6.7	7.5	8.9	9.0	7.6	6.2
USA	*4.2*	*6.1*	*7.6*	*11.9*	*8.6*	*6.7*
Canada	*5.2*	*7.1*	*8.8*	*12.7*	*10.2*	*7.5*
Japan	*n/a*	*7.0*	*7.7*	*8.2*	*5.7*	*3.5*

Source: OECD, Economic Outlook.

The preceding table shows how interest rates[43] have fluctuated over a span of 38 years in the EU region, USA, Canada and Japan. The first period 1961- 66 is dominated by

low interest rates. After that, and more specifically in the three successive periods, interest rates have risen inexorably, culminating in an unprecedented period of sky-high interest rates. All the policies[44] that led to those double-digit figures had a tremendous impact on the EU economies as well as the economies of the USA, Canada and Japan. Workers employed in the manufacturing sector were the first to experience the rigor of being laid off due to closures and lack of investment. Potentially, the ensuing chain reaction effects ushered in a new era of increasing unemployment and growing inequality that has plagued the entire population ever since. What was to follow was a period of spasmodic[45] attempts to redress the balance by putting a halt to this upward trend. As a result, the following two periods 1985-91 and 1992-98, were characterized by interest rates that were lower but not low enough to ensure the restoration of the earlier volume of investment.

Table 5. *Investment, growth rates (averages).*

Countries	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	4.7	3.9	-0.7	0.3	6.7	1.2
France	8.8	6.4	1.1	-0.6	4.7	-0.3
Italy	3.2	5.1	0.7	1.3	3.2	-0.1
Netherlands	7.1	4.0	1.0	-1.2	3.7	2.6
Belgium	7.3	2.8	3.1	-3.0	6.7	1.5
Luxembourg	5.7	3.9	-0.9	-0.5	13.7	2.5
U.K	6.0	3.1	0.8	1.2	3.4	1.8
Ireland	10.3	8.9	6.2	0.5	0.7	5.9
Denmark	7.9	5.4	-0.3	-1.7	1.8	4.3
Spain	14.2	6.7	1.7	-2.2	9.4	4.0
Greece	9.8	11.1	0.5	-2.3	2.8	5.3
Portugal	9.0	6.7	1.7	-1.6	7.2	4.0
Sweden	6.2	2.8	-0.9	1.5	3.4	-0.5
Finland	4.5	4.8	-0.2	3.7	1.1	-0.1
Austria	7.0	7.2	0.7	-0.2	5.1	2.5
USA	*5.9*	*3.2*	*3.7*	*2.6*	*0.6*	*5.6*
Canada	*8.5*	*3.1*	*5.3*	*3.6*	*5.0*	*3.0*
Japan	*14.1*	*14.7*	*2.7*	*1.8*	*7.2*	*-0.5*
OECD Countries	*6.9*	*5.4*	*2.1*	*1.9*	*3.8*	*2.3*

Source: OECD, Economic Outlook.

2.6 Fiscal policy: Still a policy instrument.

In Europe, despite the flexibility of labour markets that has been achieved as well as the significant decline in the bargaining power[46] of the trade unions, the problem of unemployment has persisted (Morgan, 1996).

Arguably, the reduction in the rate of inflation reflected by the economic agenda set at Maastricht - which requires the adoption of restrictive monetary policy over a long period - has been achieved at the expense of increasing unemployment. The Ricardian belief that changes in government borrowing has no effect on aggregate demand has to a great extent influenced the way economic policy is formulated within EU member states[47]. However, while such a development is unfolding, the notion that the alarmingly high levels of EU unemployment as well as the persistent macroeconomic instability necessitate the introduction of other policy instruments is gathering momentum. To this effect, the use of fiscal policy (public expenditure and taxation), is perceived as being instrumental in affecting economic activity[48]. Holland (1995) proposes a significant increase in government spending and greater deficits, while others, such as Dreze and Malinvaud (1994), envisage an expansionary monetary policy designed to cut real interest rates to zero in the short term.

Empirical evidence suggests that a rise in final government expenditure of 1 per cent of GDP will raise European output by 3.5 per cent after 6 years[49] (Richardson et al 1994). The prospect, however, of promoting employment through the conduct of the aforementioned policies has been discouraged by a number of forces within the European circles[50]. Nowadays, stabilization through the use of fiscal policy is a time-consuming process of consolidation to make governments more creditworthy[51]. According to Grahl (1997), such a process is conducive to good rates of economic growth and low interest

rates. In other words, the whole philosophy of the Maastricht treaty is in conflict with these conditions. Looking upon the convergence criteria not as numbers, but as a policy measure to stabilize the EU's public finances might make sense. However, neglecting the macroeconomic impact that the narrowing[52] of public sector deficits will have on EU economies could be detrimental. That is because deficit reduction is likely to be tackled by major reductions in expenditure rather than increases in revenue; that will lead to weaker public sectors.

It could be argued that a major setback in the economies of all EU countries was the reduction in capacity for fiscal policy. The decline in the size of the public sector in nearly all 15 countries has had an adverse effect on expenditure and economic activity.

Table 6. *Public spending, growth rates (averages).*

Countries	1961-66	1967-72	1973-78	1979-84	1985-91	1992-98
Germany	11.0	11.1	10.3	5.6	4.1	5.0
France	9.9	11.7	17.4	14.3	5.4	4.6
Italy	13.5	11.4	19.8	22.1	11.2	3.5
Netherlands	13.0	13.1	13.7	4.2	2.5	3.7
Belgium	9.2	11.5	15.1	6.5	3.7	4.5
Luxembourg	9.0	10.0	15.5	9.2	8.6	7.9
U.K	7.8	10.4	19.3	13.2	8.3	4.7
Ireland	9.8	16.6	22.6	17.9	5.6	7.0
Denmark	15.9	15.9	15.6	11.5	5.4	3.6
Spain	16.4	15.2	26.3	18.1	13.6	6.9
Greece	11.5	11.8	26.3	26.1	20.5	12.5
Portugal	11.5	13.9	23.7	25.3	23.4	8.9
Sweden	12.5	12.2	16.4	11.2	8.5	1.8
Finland	13.3	14.0	19.6	14.6	10.6	0.1
Austria	9.6	11.4	15.0	7.5	5.6	6.2
USA	*4.6*	*2.0*	*1.0*	*1.6*	*2.7*	*0.3*
Canada	*5.3*	*5.9*	*4.3*	*1.8*	*3.1*	*-0.3*
Japan	*5.2*	*4.5*	*5.2*	*3.3*	*2.1*	*1.7*
OECD Countries	*4.5*	*3.0*	*2.6*	*2.4*	*2.6*	*0.8*

Source: OECD, Economic Outlook.

Table 6 shows how the growth rates of public spending have behaved over various periods before, and especially after 1991, when the EU economies entered phase 1, towards EMU. As we can see, a substantial squeeze in public spending over the period 1992-98 was experienced by Finland, Sweden, Greece, Spain, Portugal, Denmark, UK, Luxembourg, Italy, and France. In the remaining five countries, the picture was slightly better, but not good enough to ensure a steady recovery. Public investment has dwindled considerably, while social security expenditures have had to rise, in order to deal with the pernicious repercussions of rising unemployment. Moreover, a substantial squeeze in public spending has been exerted on the economies of the US, Canada, Japan and the OECD countries as well.

Following Kurzer(1988), firms' reaction to a decline in disposable income and public spending will be a delay in productive investment. The belief that returns on capital in the future will be marginal, (or at least too thin to warrant present investments), makes firms use their reserves to acquire financial[53], rather than productive assets.

No one disputes the contention that the unacceptably high levels of public finance (debt, deficit[54]) should be addressed at once. The salient question, however, is how to go about dealing with a situation which, if treated hastily, may have perverse effects on the economy.

Mainstream economics seems to overlook the existing connection between the public and the private sector. As a result, fiscal policies are invariably believed to be bound up with the public sector. Allsop (1998) argues that when dealing with the private sector, it is wise to look also at the influence that public policy exerts on the private sector. The observed increasing figures in European debt should therefore be seen as a rising trend of

public sector asset holdings by the private sector. In other words, changes in the debt trend are possible, provided that either private sector savings decrease, or investment increases.

Policy makers' goal over the last years has been to create the conditions under which more investment opportunities will be encouraged. With this in mind, the pursuit of policies to generate economic growth got under way. A reduction in public borrowing became a principle to which all countries seeking economic growth would have to adhere. Inevitably, the dominant view in the mid-1990s appeared to be that fiscal tightening, together with 'supply side' measures, would lower interest rates and support the required revival of investment spending[55]. As it turned out however, the negative short-term effects of fiscal tightening put the economy in a rather precarious position.

In Europe, the looming difficulties of fiscal consolidation were not given the appropriate attention by its economic bodies (Allsop and Vines, 1996). A country's policy to pursue fiscal adjustment often entails lower interest rates, a lower exchange rate, and a positive balance of payments. In Maastricht's case, however, such a prospect is far from realistic[56]. The policies envisaged are designed to promote a fiscal policy of restraint. Hence, in view of the limitations implied by the treaty, a credible strategy to instigate the necessary adjustment of investment is conspicuous by its absence.

At both national and European level, the use of fiscal policy is heavily constrained by the new set of rules embodied in the stability and growth pact. This new set of regulations sketches the course of action that each member state has to take if it fails to conform to the pacts' prescribed targets[57]. More specifically, countries about to exceed the threshold in terms of the permitted deficit ratio will have to take corrective fiscal policy action in the form of reduced expenditure or increased taxation. Such a measure will have

an adverse effect on income. If, however, the threshold has yet to be reached, financing the deficit by means of borrowing on EU capital markets will put pressure on the European interest rate, which in turn will raise debt-servicing outlays throughout the EU. Gregory and Weiserbs (1998), regard the deficit and debt provisions as contradictory[58] to the objective of Article 1 of the Treaty of Rome, which aimed at the leveling-up of living standards throughout the European Community.

An argument advanced by Emerson et al (1992) is that the creation of a monetary union in itself makes problems of excess borrowing more likely, since it will increase the perceived likelihood of bail-out[59]. This argument refers to potential taxation levied on the citizens of one country to pay the debts of the government of another. An alternative route through which this bail-out could be feasible is in the form of inflation throughout the monetary union, which would reduce the real value of debt.

In Europe, following reductions in taxes on companies as well as reductions in direct taxation of incomes, taxation systems have become less progressive[60]. Privatization has contributed further to the weakening of the public sector, since public assets have been sold at prices that do not compensate for the loss of future revenue from nationalized companies[61].

The notion that taxes on employment should be reduced in economies facing high unemployment has provided the platform on which those tax reforms have been based. However, this is not a reason to justify reductions of direct taxation on very well-paid jobs. Despite the fact that EU's fiscal federalism is not a precondition for EMU, an enhanced budget would greatly facilitate EMU[62] (Eichengreen 1992: 152). Sala-I-Martin and Sachs (1992) argue that fiscal federalism is an institutional way of achieving a policy equivalent

to a high degree of coordination while Allsopp (1998) claims that a coordinated policy would be preferable, but if it is not feasible, perhaps because of difficulties in achieving agreement between policy makers, a centralized policy is preferable to nothing[63].

One of the features of the Community's budget is that revenue has to equal expenditure[64] (accounting budget). Therefore, the EU cannot run budget deficits in times of slump in order to stabilize the EU economy. Conversely, national budgets have become more functional and unbalanced. These economies have followed the legacy of the Keynesian revolution, which condoned the practice of governments running budgetary deficits (government expenditure exceeds tax intake) to stimulate demand, and in effect, reduce unemployment.

2.7 A preliminary attempt to interpret Maastricht's policies. Some evidence.

So far, we have illustrated through descriptive statistics (tables, figures), how some significant economic variables have behaved over a period of years and especially after the imposition of the Maastricht's convergence criteria, on all EU member states. The economic variables under scrutiny appear to have suffered significantly, primarily due to the deflationary policies that the EU countries had to implement in view of the qualification round to EMU.

The next task will be to generate some simple regression[65] equations in order to establish an indication as to whether and to what extent what has been suggested by the analysis above is in line with the econometric evidence. More specifically we will set up equations of the form:

$$Y_{it} = \gamma_i + \delta D_{it} + \varepsilon_{it}$$

For $i = 1,2,3....,N$ cross-section units and periods $t = 1,2,....,T$.

Y_{it} is the dependent variable;

γ_i is a constant for each country;

D_t is a dummy variable which takes the value zero for the years before the Maastrich and the value one for the years after;

ε_{it} is an error term;

This analysis will be carried out by using data[66] for all 15 EU countries in series from 1961 to 1998. Regression equations have been employed to test the significance of the means of certain variables. The sign as well as the significance of the dummy variables will establish the extent to which the policies fostered by EU members, have affected the behaviour of the variables in question (see table 7).

Table 7. Summary of individual regression results for every EU country.

15 EU Counties		*Germany*	*France*	*Italy*	*Netherlands*	*Belgium*	*Luxembourg*	*U.K*	*Ireland*	*Denmark*	*Spain*	*Greece*	*Portugal*	*Sweden*	*Finland*	*Austria*
GEX	γ	8.3	11.6	15.5	9.1	9.0	10.4	11.7	14.2	12.6	17.8	19.3	19.7	12.1	14.3	9.5
	D	-3.3	-7.0	-11.	-5.4	-4.5	-2.4	-6.9	-7.2	-9.0	-11	-6.8	-11	-10.	-14.	-3.3
	S.E	2.5	2.5	3.2	3.0	2.6	2.7	3.5	4.4	2.8	3.0	4.2	4.2	2.0	2.5	1.9
	Pr.	.183	.005	.000	.066	.090	.365	.051	.104	.001	.000	.105	.011	.000	.000	.091
UR	γ	3.4	5.6	5.7	5.2	6.0	1.0	4.8	8.8	4.9	8.6	4.8	4.9	2.1	3.5	2.4
	D	5.6	5.8	5.0	1.2	5.9	1.4	3.6	4.7	5.6	12.8	4.7	1.1	4.8	11.5	3.4
	S.E	1.1	1.2	0.9	1.2	1.6	0.3	1.3	1.8	1.4	2.8	0.8	1.0	0.4	0.9	0.5
	Pr.	.000	.000	.000	.329	.000	.000	.005	.008	.000	.000	.000	.279	.000	.000	.000
PC	γ	4.0	3.7	4.4	3.7	3.0	4.0	2.5	3.2	2.4	4.5	4.5	4.2	2.2	3.6	3.4
	D	-2.5	-2.3	-3.7	-1.5	-1.8	-1.8	-0.1	1.3	0.6	-3.1	-2.8	-2.1	-1.7	-2.5	-1.8
	S.E	1.4	0.7	0.9	1.1	0.8	0.8	0.9	1.2	1.2	1.3	1.0	2.1	0.8	1.3	0.7
	Pr.	.062	.000	.000	.181	.020	.023	.910	.279	.602	.015	.004	.338	.040	.054	.012
CF	γ	7.0	10.7	13.3	7.8	8.6	10.3	10.8	14.1	9.6	15.9	17.6	17.6	9.7	12.6	8.5
	D	-3.5	-12	-11.	-5.0	-6.4	-7.1	-8.9	12.9	-6.2	-13.	-12	-11.	-13	1.0	-5.2
	S.E	3.4	2.2	4.5	3.0	3.7	6.0	3.6	5.8	4.7	3.4	4.6	5.5	3.3	4.5	2.9
	Pr.	.308	.000	.011	.097	.087	.235	.014	.030	.187	.000	.054	.036	.000	.815	.045

Note: *GEX* stands for government expenditure/gdp, *UR* stands for unemployment rate
PC stands for private consumption (growth rate), *CF* stands for capital formation/gdp
S.E denotes standard error, and *Pr.* denotes probability.

After having regressed government expenditure on a constant and a dummy variable, the emerging evidence suggests that the coefficients of the dummy variables of eight out of the 15 EU countries are statistically significant at the 5% level of significance. Five of them are statistically significant at the 10% level of significance, and only two (the ones corresponding to Germany and Luxembourg) pass the significance test at a higher level. The negative sign of the dummy variables suggests that after 1992 government expenditure has decreased throughout the EU countries.

As regards the unemployment rate, the results we have obtained are in line with those we obtained for government expenditure. The only difference is that this time the coefficients of 13 out of the 15 countries are found to be statistically significant at the 5% level of significance, whereas the remaining two (those of the Netherlands and Portugal) are significant at a higher level. The positive sign of the coefficients of the dummy variables reinforces the notion that the problem of unemployment has been exacerbated after the ratification of the Maastricht Treaty.

Private consumption is another variable that we looked into. We have come up with the following evidence. The t-statistics indicate that the coefficients of ten countries are statistically significant at the 5% level of significance and those of five are insignificant (Netherlands, UK, Portugal, Ireland, Denmark). As far as the sign is concerned, two countries (Ireland and Denmark) have an incorrect sign (positive), while the rest appear to bear the right one. In this case, the convergence criteria seem to have a negative impact on the consumption pattern of the population of 13 countries while two countries seem to be unaffected.

Lastly, the preceding regression results indicate that capital formation has decreased significantly in a total of 11 countries after 1992. More specifically, the coefficients of eleven countries are found to be statistically significant, nine at the 5% level and two at the 10% level of significance, those of three are insignificant and that of one (Finland) has the incorrect sign.

The overall picture painted by the emergence of the above evidence indicates that some key economic variables have been affected negatively by the Maastricht provisions. However, only a few countries seem to have maintained some control over their policies and their economic performances.

2.8 Concluding remarks.

The impact of the new economic order, established in Europe by the ratification of the Maastricht Treaty as well as the introduction of the stability and growth pact, on European labour markets provided the platform on which chapter 3 unfolded. By scrutinizing the behaviour of some significant economic indicators, it became apparent that the current economic situation of most of the European countries is rather dismal. Governments within the EU look upon the convergence rules as being the exclusive source of economic policy targets as well as the only policy option.

A growing body of literature argues that the current economic situation that characterizes most of the EU member states is far from conducive to nurture a future monetary union. The existing criticism, surrounding the nature as well as the credibility of

the convergence criteria, finds justification in the way these conditions have been defined in both quantitative and qualitative sense.

The emergence of an institution such as the European central bank (ECB), which is forbidden to fund any public programs and with exclusive purpose the control of inflation raises a number of questions as to what priorities should be given in the pursuit of a sound economic policy. Arguably the deflationary bias attached to an independent[67] ECB, is expected to exacerbate rather than alleviate the existing economic and social tension.

In the absence of an EU fiscal policy it was suggested that national governments should be allowed to pursue budgets deficits when they feel it s necessary to do so. Ideally, this should be seen as a temporary expedient during a period in which a proper EU fiscal policy is generated.

Finally, through some preliminary econometric investigation, we sought to demonstrate the extent to which the ratification of the Maastricht Treaty has affected the European economies. In all likelihood, the evidence generated consolidates the notion that the deflationary frenzy by which economic policy in the EU is pursued has had an adverse effect on a number of significant economic variables across all EU countries.

Appendix

GDP (growth rates)

Fig. 1.

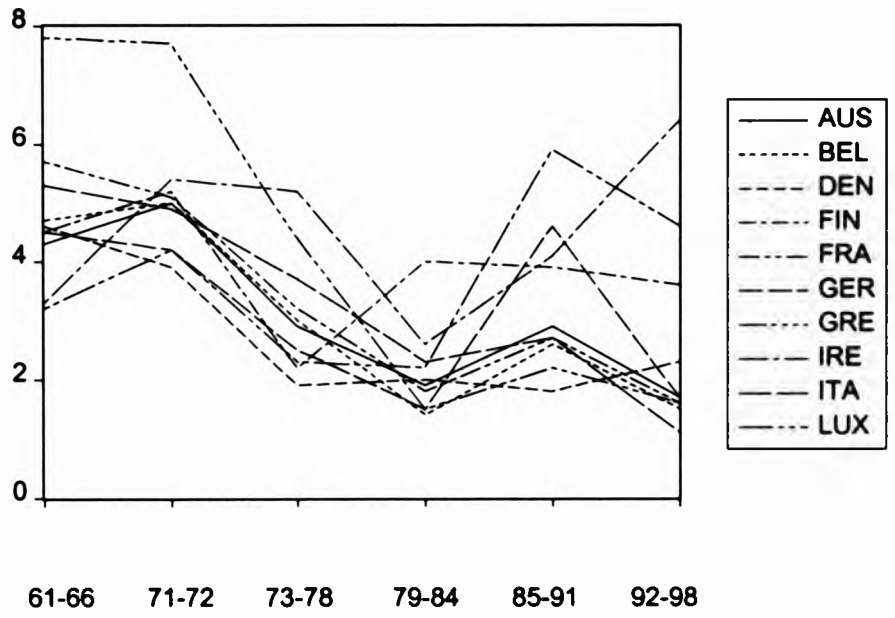
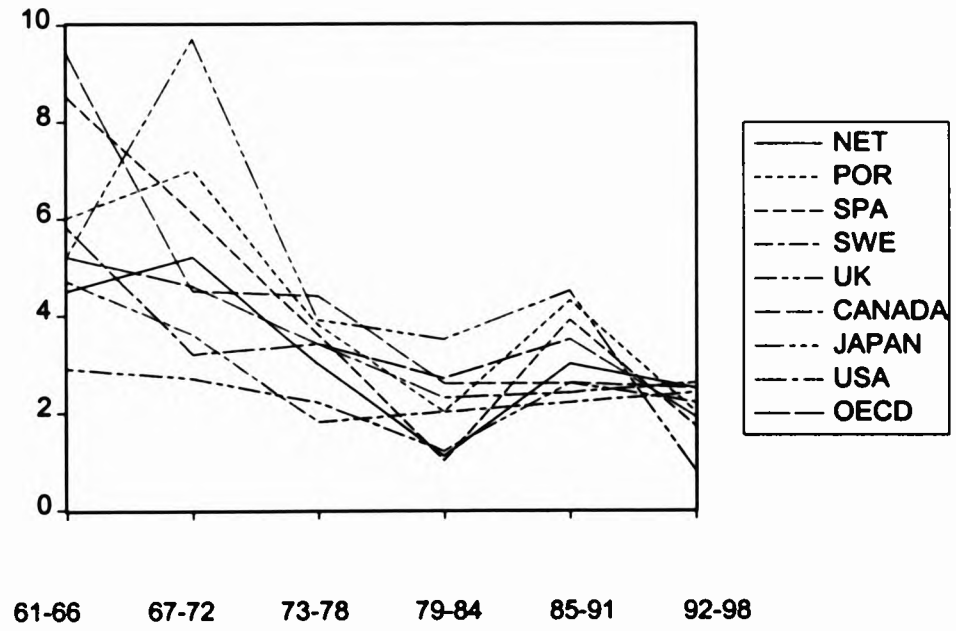


Fig. 2.



Unemployment Rates

Fig. 3.

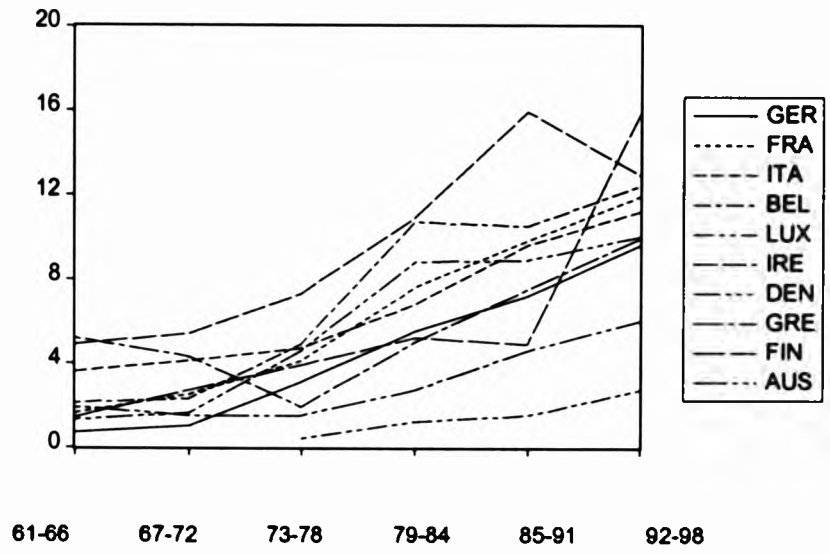
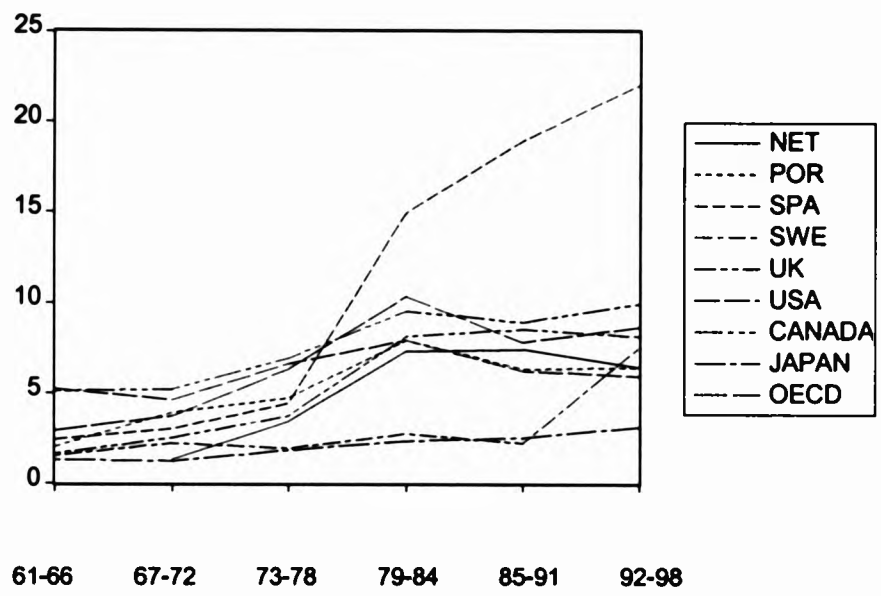


Fig. 4.



CPI (growth rates)

Fig. 5.

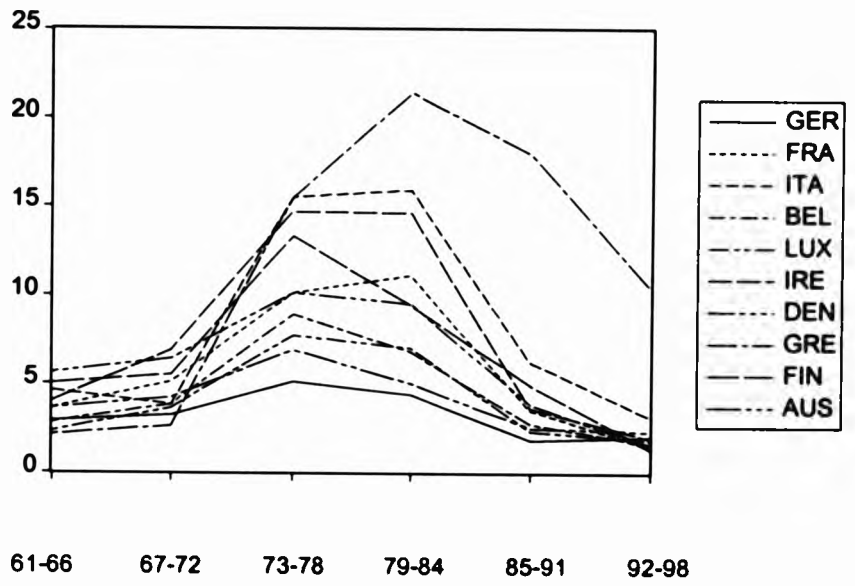
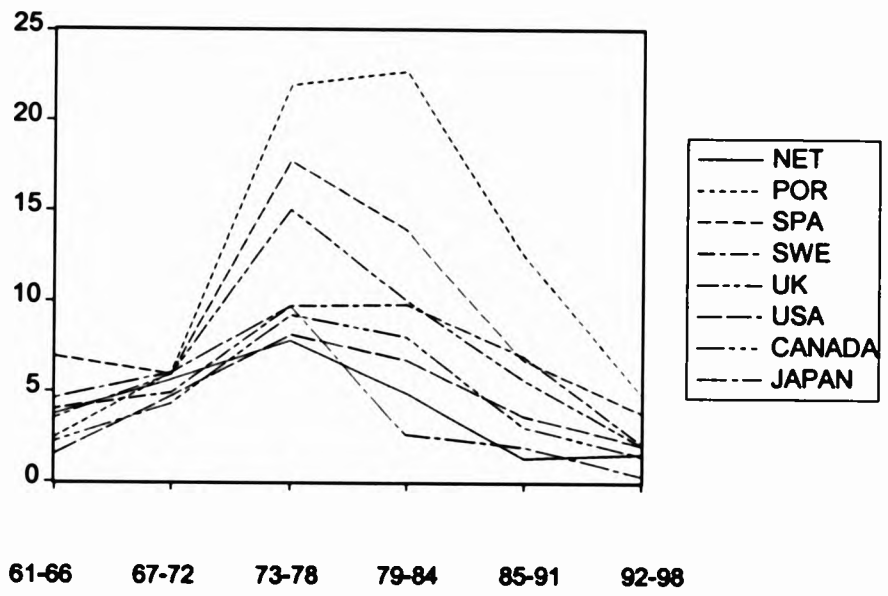


Fig. 6.



Interest Rates

Fig. 7.

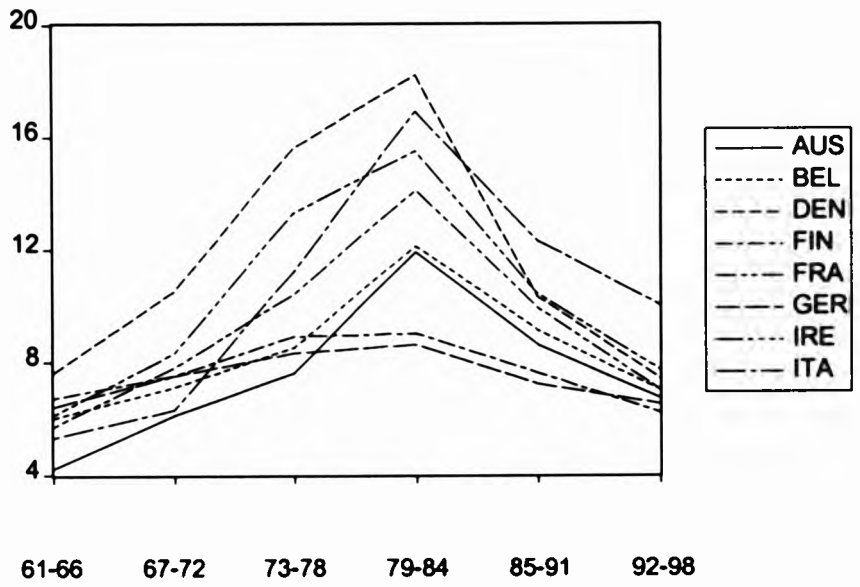
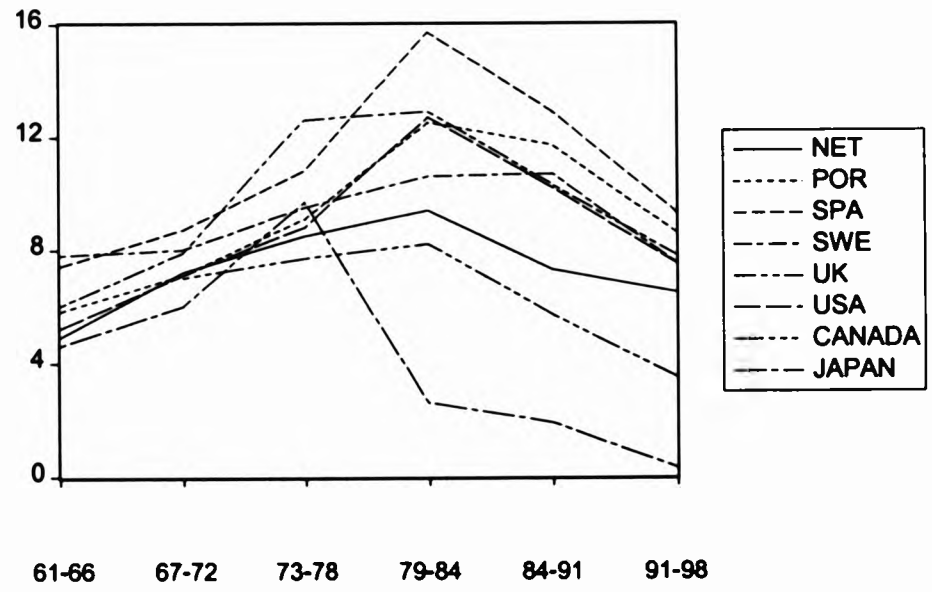


Fig. 8.



Investment (growth rates)

Fig. 9.

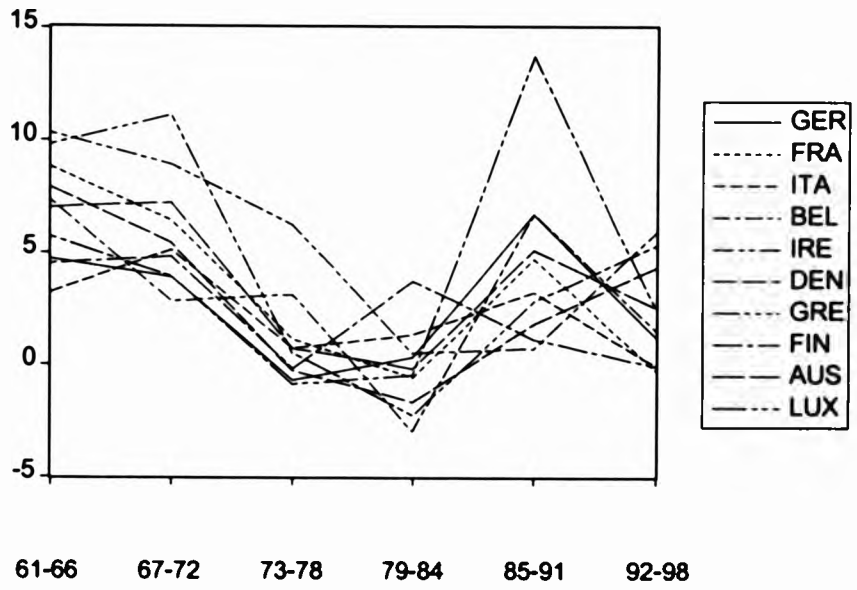
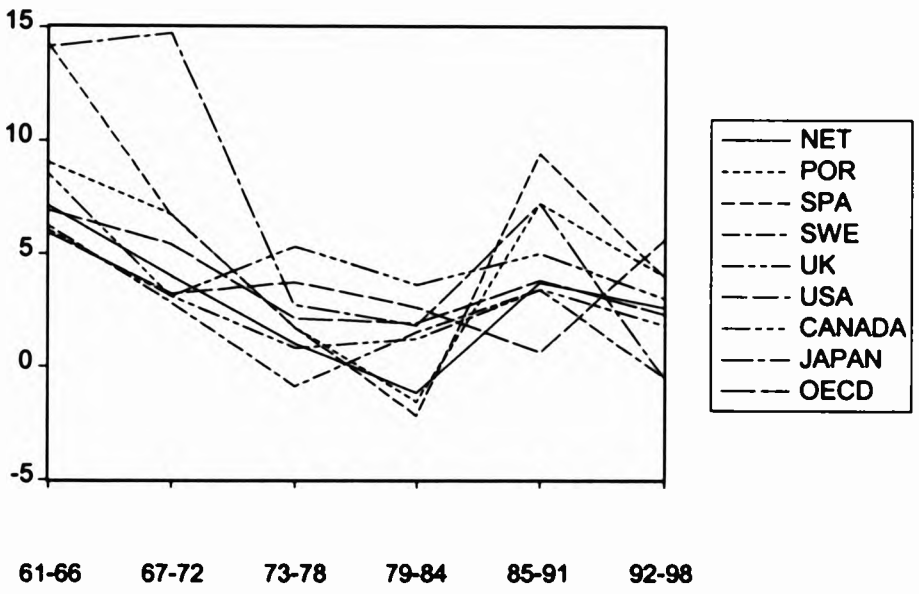


Fig. 10.



Pubic Spending (growth rates)

Fig. 11.

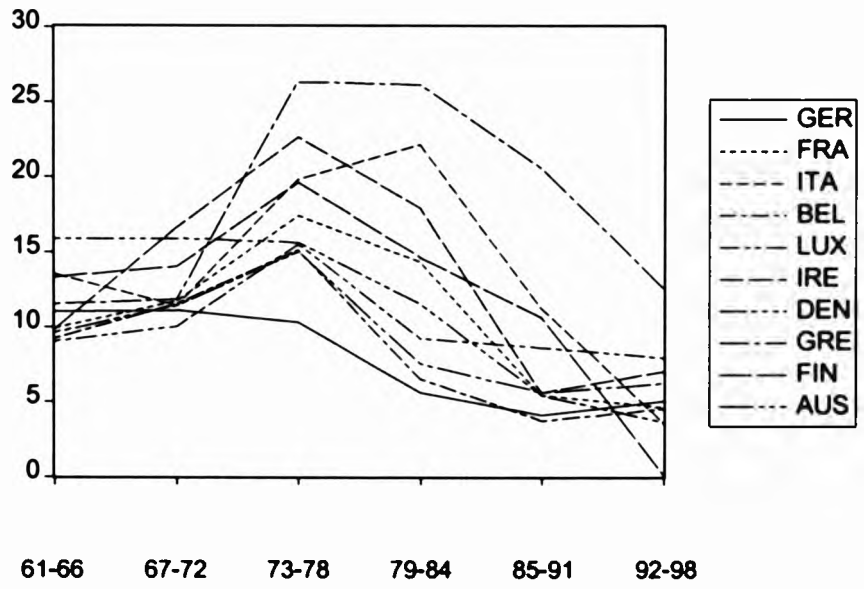
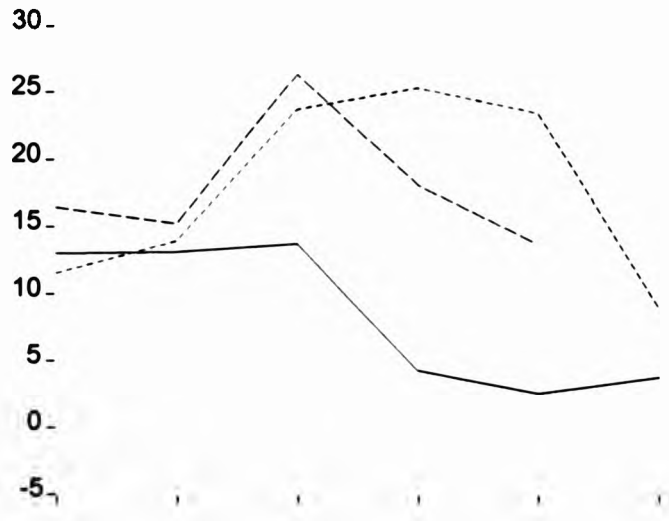


Fig. 12.



Appendix 1

The anti-inflationary bias that characterizes independent central banks can be demonstrated as follows:

Let us assume that policy-makers want to minimize the following loss-function:

$$(1)\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\Lambda^{g} = \frac{1}{2}\pi_t^{\,2} + \frac{\alpha}{2}\left(y_t - y_t^{\,*}\right)^2$$

where y_t is output, y^* denoted targeted output and α is government's weight on output stabilization ($\alpha > 0$). Equation (2) is a simplified Lucas supply function:

$$(2)\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots y_t = \left(\pi_t - \pi_t^{\,e}\right) + \varepsilon_t$$

where π_t is actual inflation, π_t^{ε} is expected inflation, and ε_t is a random shock with zero mean and (σ^2) variances. Provided that the policy-makers want to minimize eq.(1) on a period basis, taking the inflation expectations as given, the rational expectations inflation can be written as:

$$(3)\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\pi_t = \alpha y_t^{\,*} - \frac{\alpha}{\alpha + 1}\varepsilon_t$$

By browsing at eq.(3) one can infer that the first term at the right hand-side is the inflationary bias whereas the second term reflects the degree to which stabilization of output shocks influence inflation. Assuming that the conduct of monetary policy has been delegated to a more inflation-averse central bank, eq.(4) can be thought of as the equivalent loss-function of the central bank:

(4)..... $\Lambda^{cb} = \frac{1+\theta}{2}\pi_t^2 + \frac{\alpha}{2}\left(y_t - y_t^*\right)^2$

where θ stands for the inflation aversion of the central bank. The preferences of the central bank does not matter, unless it is able to determine monetary policy without much government interference. This can simply be modeled as follows (Eijffinger & Hoeberichts (1998):

(5)..... $M = \delta\Lambda^{cb} + (1-\delta)\Lambda^{g}$

where δ denotes the degree of central bank independence, i.e. to which extent the central bank's loss-function affects monetary policy-making. If δ = 1, the central bank fully determines monetary policy M. With rational expectations and minimizing government's loss-function, inflation will be:

(6)..... $\pi_t = \frac{\alpha}{1+\delta\theta} y_t^* - \frac{\alpha}{1+\delta\theta+\alpha}\varepsilon_t$

By simply comparing equations (3) and (6), one can immediately see that the inflationary bias (the first term at the right hand of the equation) is lower for positive values of δ and θ. What flows from the above is that the delegation of monetary policy to an independent central bank will yield a lower level of inflation.

Notes:

[1] It was the embodiment of a previous agreement reached in The Hague in 1969 by the Council of Ministers. The whole philosophy of this plan was to provide the platform on which currencies can be unified.

[2]This was an attempt to narrow currency internal fluctuations precipitated by the introduction of earlier wider bands of fluctuation of plus or minus 2.25 per cent (Smithsonian agreement).

[3] Exchange rate stabilization among participants was achieved after a few years, although at some cost to stability against currencies outside the system. However, it is less clear that the ERM promoted greater stability of real exchange rates. Some critics maintain that this mechanism ultimately led to unsustainable real rates, especially after 1987 when governments unwisely suppressed realignments (Williamson 1993a, p.195).

[4] It was not until after the massive widening of the ERM fluctuation bands to +,-, 15% in August 1993 that pressure subsided. For a study which applies several models to the EMS crisis see Eichengreen and Wyplosz 1993.

[5] In Europe, there is a growing concern regarding the move towards a single currency and its impact on employment. In the UK for example, an evaluation of such a move has generated a number of questions. An idea of how the financial sector feels about this venture can be concisely summarized as follows: the impact of the single currency on banking jobs will be felt first in the area of foreign exchange trading and settlement . London is the biggest foreign exchange trading centre in the world so it will feel the squeeze hardest. Even if the UK joins the monetary union later , other European countries' adoption of the Euro will mean that hundreds of jobs in cross-trading between their currencies will disappear with the currencies themselves. These job losses, however, will be just a fraction of the total number of employees in financial services who will face redundancy as a result of EMU. FIET, an international trades union body estimates job losses in the sector will be at least 200,000 Europe wide, and possibly twice as many. The Boston Consulting Group, a firm of management consultants, has estimated losses of revenue to banks from reduced trading in currencies to reach as much as $56bn a year. Bifu also fears banks will seek to offset the extra financial costs entailed by introducing the Euro by laying off workers. Finally, there are concerns that a single currency could revolutionarise the provision of financial products. It could become possible for customers to click on the internet to find the lowest-cost mortgage across Europe (The Guardian 27 October 1997).

[6] It should be emphasized that the debt criterion set by the Maastricht treaty is in terms of gross rather than net debt, i.e. totally ignoring all assets. In other words, governments are forbidden to take account of even their most liquid assets in setting fiscal policy. For instance, a government's decision to sell some of its assets in order to pay debt (for example through privatization), is seen as an improvement according to the Maastricht. In reality, the government is no better off, since their asset has fallen. What is even more absurd is the fact that the government's performance is thought to have improved even if it sells off assets for less than they are worth.

[7] A number of economists have expressed different opinions as to what these figures represent. Amid those, Arrowsmith (1995) believes that the Maastricht Treaty reflects the average record of those member states who pursued prudent fiscal policies in the last two

decades. A detailed account of the negotiations behind the treaty is provided by Bini-Smaghi et al (1992).

[8] The Economic and Financial Council of European Commission relentlessly reiterates its recommendations for more flexibility in both wage-setting and employment conditions.(The Guardian, 13 May 2000)

[9] In a nutshell, these are the neoliberal practices that have been practiced for about twenty years in most EU countries and which have been proved incapable of checking the growth of unemployment, poverty and exclusion.

[10] Arestis and Sawyer (1996), hold that the Maastricht convergence criteria should be expanded to include real variables, such as levels of unemployment, productivity growth, and low trade deficits.

[11] The debt and deficit criteria were designed to prevent profligate spending by fiscally irresponsible governments (Driffill and Miller 1998).

[12] European economies are believed to suffer from structural differences. Arguably, well diversified economies are better able to abandon the exchange rate instrument, since microeconomic shifts in demand would be likely to offset each other, thus leaving domestic inflation or unemployment broadly unchanged. The opposite will be the case in highly specialized economies. Krugman (1993), however, evokes the US experience to argue that economies enjoying a substantial amount of product diversification are prone to have this diminished should a monetary union takes place. A common currency will lead to increased specialisation of member countries, and therefore to greater asymmetric shocks.

[13] This study draws on the economic forecasts described in the May 1995 edition of the National Institute Economic Review enriched with updated projections for some smaller European countries. Some of their projections suggests that aggregate unemployment, which averaged close to 11.5 percent in the EU 1994, is expected to decline modestly by about 2 percentage points over the period to 1999, but remain above the low point reached at the height of the boom in the late 1980s.

[14] For a more comprehensive analysis see Barrell, Caporale & Shefton (1994) whereby they use the NIGEM Macromodel to analyze the policy options available to Europe.

[15] An additional factor contributing to the slow down of global economic growth was the oil price shock in the 1970s.

[16] According to this table, Ireland and Denmark are the only exceptions.

[17] It is of some interest to note that even in the OECD countries the growth rate of GDP has declined, especially after the signing of the Maastricht Treaty. It should be emphasized that the exposition of the behaviour of the growth rate of GDP in the OECD countries aims at purely providing some additional information as to how this trend compares in both those groups.

[18] Giovannini and McKibbin used the MSG model, with the 1991 deficit to GDP ratios projected into future.

[19] In this study a baseline projection was used in which deficit to GDP ratios were held at their 1992 levels. Two possible scenarios for convergence of deficit and inflation rates by 1996 were examined. The first scenario was based on the assumption that interest differentials between Germany and other EU members were reduced as convergence occurred whereas the second one assumed that interest differentials persisted at their 1992 levels.

[20] Despite the rigorous effort by a number of economists to pinpoint the culprit for such an economic debacle, the unemployment rate seems to be gathering momentum disrupting the economies across the globe. A number of potential reasons have been put forward in an attempt to explain such an unprecedented development, but none of them seems to provide a clear cut answer to the persisting problem. Some of the most predominant views on the causes of unemployment, revolve around the lack of flexibility in the labour market i.e. "sclerosis", the long lasting effects of unemployment i.e. "hysteresis", or the inequality of earning power in the labour force.(Britton 1994)

[21] The hysteresis theory find its roots in the notion that the associated sharp rises in unemployment were difficult to reverse. Moreover, they suggest that workers made redundant in a recession lose contact with the labour market, are regarded with suspicion by employers and become demoralized or demotivated. For more on hysterisis see (Blanchard and Summers 1986, 1987, Blanchard 1990, Bean 1994).

[22] In France Mitterand's cunning ploy of firstly outmanoeuvring the Communists and secondly of putting in place a mechanism that promoted liberalization and monetary union had a profound impact on France's economic performance in years to come.

France's economic polices were very much in line with those imposed by Germany on the rest of EU countries. The key difference however lies in the fact that Germany were no longer threatened with unemployment and under-consumption. As Cotta 1991 maintained, the same model may not work for countries such as France, Spain, and Italy, which have traditionally relied upon devaluations, fiscal stimulus and some inflation for growth. The goal of price stability is particularly injurious to the southern regions where sectoral disparities in productivity growth give rise to differential price increases and a structural unemployment.

The new era ushered in by Mitterand's reign caused a structural change in France's economic orientation. Under the impact of rising unemployment and deindexation the average wage per employee dropped to 1.7 percent between 1982 and 1988 (Lecointe *et al,* 1989) For the first time wages failed to keep up with productivity(Blanchard & Muet,1993) . Profit margins after registering 13.13 percent in 1982, recovered considerably reaching 18.4 percent by 1987. The tax burden was shifted from companies to households. By 1994 the wage share of national income had fallen nine points since when he came in power in 1981. The end result of this new economic orientation shared by the French administration – competitive deflation – was growing income inequality, rising unemployment – reaching 12.7 percent by 1994 – high real interest rates – two points above the Germans – and low growth – an estimated 1 per cent of GDP annually(Fitoussi, 1995).

In response to a period of social unrest and public discontent the Socialists moved closer to an alliance with the Communists, which was concluded for the surprise election called by Chirac in April 1997. The new government led by Jospin pledged a gradual and controlled reflation that would benefit labour. His proposed policy mix held a potential for higher inflation and budget deficits that diverged from the limits imposed by the EU Stability Pact.

[23] One of the reasons why the Netherlands has the lowest unemployment rate in the euro area could be the sharp fall in wages relative to productivity. A deeper explanation could be sought in the Wassenaar agreement of 1982 between unions, busisness and government. Unions agreed to limit wage demands in exchange for more generous financing of early retirement and a shorter work-week. It has to be stressed however that despite the wage

moderation in all European countries the ratio of labour to capital didi not reaver in these countries.

[24] It has to be stressed however that over the last years Ireland have enjoyed significant economic stability. It is beyond question that Ireland's economic success is exceptional. Between 1994 and 1999 the Republic of Ireland experienced GDP growth of over 9 per cent per annum. Employment has risen by nearly a third over this period and ILO unemployment which stood at 13 per cent in 1994 has fallen to 4.4 per cent. As a result, living standards in Ireland, which were traditionally low by western standards, are converging rapidly to the EU average.

The short-term effects began with the devaluation of the punt in mmid-1986 and the doubling of the EU structural funds As the fiscal position became sustainable, internal and external confidence was boosted. Ireland's success story has been underpinned by two long-term strategies which have contributed to sustainable development. The first is its industrial policy. In particular its primary focus has been on the developing a high value added manufacturing base through foreign direct investment using fiscal policy (low corporate tax rates and grants) as an incentive. The second long-term strategy is its education policy. The recent emphasis on completing upper secondary and tertiary education, educational attainment and skill levels of the Irish workforce have gradually improved Ireland's position in attracting foreign investment.

[25] In Spain the impact of monetary integration is invariably gauged in terms of the constraints imposed on welfare expenditure and the extent of financial restrictions. Spain has had to reform the antiquated bureaucratic and dysfunctional economic processes inherited from the dictatorship and social intervention to satisfy the convergence criteria. In pursuing this objective Spain experienced dismal economic performance with unemployment exceeding the 20 percent mark. Despite the considerable effort of the incumbent government to provide a policy alternative in the fight against unemployment, Spain is still far behind other EU member states in per capita income as ever. Economic policy in Spain has been reduced to adopting monetarist policies at the expense of proactive industrial policy, making Spain a consumer rather than producer of high technology as well as policies aiming at deregulating the labour markets. The implementation of such policies took their toll on both the role of the state and in industrial development.

[26] From 1990 to 1992 the Fed focused on stimulating the economy. The federal funds rate was lowered 23 times to fight inflation. Unemployment, after reaching 7.7 percent in July 1992 it showed signs of recovery reflected by a drop to 6.5 percent at the end of 1993.

In February 1994, although the inflation rate was below 2.5 percent, the fed raised the funds rate target six times in 1994 and one in February 1995. As a result inflation was contained staying below 3 percent.

In 1996 and 1997 the unemployment rates of 5.4 and 4.9 respectively, were below most estimates of the natural rate of unemployment. Amongst a number of commentators Phelps (1996) and Rivlin (1999) thought that the low rates of unemployment would lead to accelerating inflation. Contrary to the emerging speculation inflation remained low.

Not only did the fed allowed the economy to expand but allowed unemployment to continue falling. Inflation followed suit as well. Unemployment registered 5 percent in early 1997 and fell to 4.2 in May 1999 whilst inflation was below 2 percent. The

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outstanding performance of both unemployment and inflation were the best in almost 30 years.

[27] The view that inflation is a monetary phenomenon i.e. there is a causal mechanism running from changes in the stock of money to the rate of inflation, appears to affect the way the ECB operates.

[28] According to a report published by the Committee for the Study of Economic and Monetary Union in 1989, ECB will be independent of any political control. However the prospect of the ECB being strongly influenced by the interests of the financial markets is more than certain.

[29] According to Arestis, McCauley & Sawyer (1999) the current institutional structure and rules of the ECB are responsible for the dominance of monetary over fiscal policy.

[30] One of the reasons why financial corporations are more concerned about inflation is that inflation depreciates the value of their loans and is at odds with the goal of a strong balance of payments and a stable currency. Persistent inflation also leads to various monetary imbalances that undermine the effectiveness of central bank action. Greater mobility of financial capital is deflationary, because , ceteris paribus, capital will seek out the highest real return, in other words, it will flow to the country with the highest real interest rate. States which wish to avoid capital losses or unwanted depreciation must conform their interest rate and other macroeconomic policies in line with those of the "tightest" state.

[31] In a study conducted by Gosta Dahlstrom (1998), policy measures directed to achieving price stability leads to an increase in the level of the 'misery index'. In the same line of argument, Meinder (1998) posits that the setting of new priorities, meaning those targeting price stability, are to be held culpable for the unprecedented high levels of Swedish unemployment.

[32] Research on inflation targeting suggests that such a mandate has to be reconsidered. Inflation targeting has been advovated by distinguished economists such as Bernanke and Mishkin (1997). Price stability has topped the agenda of politicians around the world. In some cases (for example New Zealand) excessive inflation has even cost the central bank heads their job. For an extensive analysis on the politics of an 'Independent Central Bank' see Epstein and Schor, (1986), Burkitt et al., (1996), Alesina and Summers (1993), Hetzel (1990), Levy (1995), Cardim de Carvalho (1995); for a critique see Posen 1993).

[33] The empirical work carried out by Hall & Franzese (1998) provides evidence from a pooled time series for inflation and unemployment based on annual as well as average data for 1955 to 1990 for 18 OECD countries.

[34] The emergence of the ECB as the sole institution responsible for setting monetary policy and in effect controlling inflation has been instructed against financing any public programs. One might argue that maintaining low rates of inflation is a legitimate target. There is nothing wrong with such a contention. The question however that can be posed is whether economic stability means nothing more than price stabiltiy and therefore economic policy can be reduced to disinflationary measures. Amongst a number of academics, as well as bankers, Arestis & Sawyer (1999); Eltis (1998); Goodhart (1998); George (1998), have all expressed their concern about the potential negative impact of the deflationary bias associated with the ECB on employment.

[35] In the enthusiasm of adopting deflationary policies, EU legislators have neglected the fact that some EU member states will be more vulnerable to the policy implications that

that the deflationary policies involve. Arguably, achieving a low rate inflation rate is particularly pernicious to the southern European countries, where sectoral disparities give rise to acute inflationary pressures. For example, wide differences in productivity growth among sectors, combined with a similar rate of growth of wage rates, lead to much bigger price increase in those with limited productivity gains.

[36] Meaning that the general capacity of Euroland to produce goods and employ labour has fallen behind labour supply growth.

[37] That is, due to deflationary policies in the run-up to EMU.

[38] Empirical studies as to what the NAIRU is, have proven to be fickle. In the late 1980s, EU countries experienced fall a in unemployment due to measures purporting to boost aggregate demand.

[39] According to this argument "a damaging spiral might develop in which, for example, an initial cost-push stimulus leads to monetary policy tightening by the ECB, which induces governments to raise tax rates in an effort to reverse a rise in their budget deficits, which in turn generates further cost-push pressure and hence more monetary tightening. This instability could be avoided if treasuries and central banks cooperated in pursuit of agreed targets for inflation and activity"(Taylor 1995: p.119)

[40] The whole philosophy behind price stability lies in the notion that zero inflation is much easier to control. Michie (1998) maintains that there is no reason why this should be the case. The inflation rate is the average of thousands of price movements some falling, some stable and some rising. Therefore if "zero inflation is achieved it would not be because prices are stable but because these movements happen to cancel each other out"(p.41).

[41] During the first half of the 1980s the average inflation rate among members of the ERM was reduced by half. Such an achievement has been attributed to the favourable framework that the development of ERM provided (Gregory and Weiserbs 1998).

[42] Nominal, long term interest rates have been used for the undertaken analysis.

[43] Barrel and Pain (1996) state that when real interest rates are high, unemployment is high. According to Phelps (1992), and Barrel et al (1995), there are two reasons for this. Firstly, high real interest rates raise income from non-labour sources(like savings) and reduce the value of discounted future earnings, thereby reducing the costs of non-employment. Secondly, high real interest rates raise the costs to firms of holding stocks of goods and employing under-used workers (as an insurance against a sudden demand upturn). As a result they hold smaller stocks and reduce the size of their workforce. They also reduce the value of the returns to be gained in the future from investing in new employees now.

[44] Minsky and Whalen (1996-97) argue that the current "monetary-policy goal of zero inflation be replaced by a return to the early postwar policy of low and stable interest rates" (pp.165-66).

[45] For Marx and his proponents, economic policies are formed by the ruling class (the capitalists) whose sole intention is to maintain their political control over the rest by going to any lengths. Reversing the flow of policies tailored to serve the interests of those particular groups within a society requires determination and radical measures: in other words, the overthrow of the capitalist system.

[46] Margaret Thatcher was renowned for her zeal for weakening the power of British trade unions.

[47] According to the Ricardian theorem any changes in the level of expenditure makes no difference to the level of nominal demand whether the government chooses to finance the level of spending wholly through taxation, or through a mix of taxation and public borrowing. Therefore, on the assumption that the private sector is rational enough, variations in the budget deficit do not affect the spending decision of the private sector. Running a government deficit financed by the sale of bonds, is looked upon as a postponement of the need to raise tax. Holders of bonds will nor be willing to lend large amounts to the government so taxes will eventually have to be raised to service bonds. As a result, people will react to a rise in budget deficit by saving in order to pay for the expected increase in taxes. Total spending therefore remains intact.
For a critique of the Ricardian theorem see for example Davies (1989).

[48] The use of public expenditure-type policies can be observed in countries such as the USA, in which, during the 1980s, the Reagan administration used public expenditure to stimulate economic activity (Reagan Boom), or in Germany where during the unification public expenditures for the reconstruction and modernization of the eastern Lander produced very high rates of growth (in Germany as a whole), until they were blocked by the restrictive stance of the Bundesbank.

[49] This result was based on the assumption that nominal interest rates remain fixed. However, if interest rates respond, so as to maintain low inflation, then the additional expenditure will be crowded-out completely.

[50] The dire state that European public finances are now in, makes fiscal expansion a rather undesirable prospect (Grahl 1997).

[51] The major attack on active fiscal policy i.e. the use of government spending to influence output and employment, came in the 1970s, from the proponents of the 'monetarist theory'.

[52] Borrowing restriction are not present in existing monetary unions (see for example Eichengreen 1997).

[53] Nowadays, the predominant trend that characterizes businesses is speculation in FOREX and experimentation with novel financial instruments to expanding productive capital. (See Alvater, 1987; Strange 1986; Armstrong *et al.* 1984; Minsky, 1982).

[54] The most renowned critique of deficit spending came from Barro (1974). His theory, known as 'The Ricardian equivalence', is based on the argument that the impact of public spending will be no greater when it is deficit spending financed by borrowing, than when it is immediately financed by additional tax revenues.

[55] The shift in policy was towards the implementation of policies aiming at making labour markets more flexible.

[56] Individual countries' exchange rate type policies have been dismissed as "beggar-thy-neighbour" policies.

[57] For more on the rational behind the introduction of the stability pact see chapter 5.

[58] The deficit and debt criteria suggest that deflationary policies should be focused on countries about to exceed the threshold. This deflationary bias reflects the asymmetry of the deficit rule (Bean 1992; De Grauwe 1992; Gros and Thygersen 1992).

[59] The public debt criterion may seem unnecessary for monetary union if contrasted to the Belgium and Luxembourg experience. In 1995, these two countries had the highest and the lowest public debt-to-GDP ratios in the EU. Nevertheless, they were successfully sharing a common currency, and had done so for decades (The Economist, 23 September 1995).

[60] Governments may look upon switching the tax burden onto lower-income groups as an alternative to attract external investment and avoid the delocalisation (Grahl 1997).

[61] The new tendency towards globalization and privatization is a new feature of the global economy. The contention that competition from cheap labour in East Asia has resulted in a fall in the relative demand for low skilled labour, and in increases in the ratio of earnings of the skilled to the unskilled within all countries is pervasive in contemporary economic literature.

[62] This is in line with the notion that fiscal federalism was not a prerequisite when the common currencies in both USA and Canada were created.

[63] Following the same line of argument Dreze et al. (1987); Van der Ploeg (1991), claim that a fiscal coordination is conducive to an effective coordination of the fiscal-monetary policy mix at European level.

[64] Harrop (1998) states that the 'Community budget does not play a stabilization role, and lacks flexibility as a result of its multi-annual programming'(pp.19). Furthermore, Italianer and Van Heukelen (1993) suggested that a reserve on top of the budget should exist, with a view to helping out economies suffering an exogenous shock which raised their unemployment rate.

[65] It should be stressed that all the regression analysis at this stage is purely preliminary and aims at providing an indication regarding the behaviour of the variables in question before and after a specific period (The ratification of the Maastricht treaty). Therefore the time-series properties have not been given any consideration. A more detailed and comprehensive econometric analysis will come into existence at a later stage, when dealing primarily with the empirical part of our study.

[66] OECD, Economic Outlook is the main source of data collection.

[67] Not unexpectedly, increased central bank independence is associated with lower inflation. What is more surprising is that such independence is not associated with improved real economic performance (Alesina and Summers 1993; Cukierman 1994).

Chapter 3

A Post Keynesian Explanation of European Unemployment: Econometric Evidence

3.1 Introduction.

Up to now, the main elaboration of the preceding chapters dwelt upon the key role that macroeconomic policy plays in alleviating economic ills such as unemployment as well as upon the emergence of the new economic orientation, as reflected by the neoliberal dogma, whose sole policy objective is the elimination of inflation. More specifically, by identifying a significant link between macroeconomic policy - through its effects on aggregate demand - and unemployment, it was illustrated that the austere deflationary policies implied by the Maastricht's convergence criteria have exerted enormous pressure on key economic indicators and most crucially on unemployment. In this context, the prime hypothesis that the contractionary nature of the Maastricht rules will impact on aggregate demand which in turn will affect negatively the unemployment rate, will be the reference point for conducting our empirical analysis.

The rest of this chapter is organised as follows: Section 3.2 touches on the nature, in terms of both the variables used and the evidence obtained, of some previously estimated unemployment equations. Section 3.3 provides the theoretical framework on which our empirical investigation is based. Section 3.4 expands on the econometric methodology that

has been adopted for the estimation. Section 3.5 elaborates on the results generated while section 3.6 concludes.

3.2 Previous attempts made to explain variations in the unemployment rate.

Over the last two decades, several theories have emerged in an attempt to explain the high and seemingly persistent levels of unemployment in OECD countries, and especially in Europe. Econometric models based on these theories have generated confusing evidence as to what variables should be held accountable for the upward trend of unemployment. The bulk of these theories[1] regard imperfections in goods and labour markets as the major culprit behind the rise in unemployment. One important element that these theories seem to have in common is the notion that low frequency movements in unemployment, or the NAIRU, are attributable to structural[2] variables, such as unemployment benefits, taxes, real interest rates whereas high frequency[3] movements in unemployment are determined by wage and price changes (Madsen, 1998).

A predominant view as to what extent aggregate demand affects unemployment resides in the perception that aggregate demand shocks can only affect unemployment, provided that they generate wage and price expectational errors[4].

Amidst numerous attempts by economists to estimate unemployment equations, Phelps (1994) developed a reduced form[5] which, considering the nature of the variables incorporated in it, purported to explain the NAIRU. It is mainly in the so-called structuralist models that the interest rate is assumed to be the main component on which variations of the unemployment rate are contingent. Such a contention finds roots in the notion that an increase in the real interest rate[6] has an adverse effect on investment,

workers, and fixed capital, and therefore increases mark-ups, which in turn lower the demand for labour. Moreover if the relative output price of the investment-producing sector increases, the real product wage decreases in the investment-producing sector, but increases in the consumption-producing sector[7] (Madsen 1998). Thereby, aggregate employment increases. The estimation results of Phelps' model suggest that the increase in the world interest rate, over the sample period, had a negative impact on unemployment, whereas the variables concerning government activities such as increasing taxes, government expenditure and debt, provided an obscure picture as to how and to what extent they affect unemployment[8].

In pursuing the unravelling of the mystery surrounding labour markets, Layard and Nickell (1986) after substituting a real wage equation into a labour demand function generated a reduced form unemployment equation which provided some further insight into the causes of unemployment. Their main evidence pointed towards a significant relationship between direct taxes and unemployment[9].

Unlike the mainstream approach to explaining unemployment, an alternative strand of thought seeks justifications through analysis of the pressure that demand side factors exert on employment[10]. In this direction, McCallum (1986) constructed an unemployment equation[11] in which a change in the unemployment rate depends on a real wage variable, a demand related variables, as well as indicators of change in fiscal and monetary policy. His estimated equation provided evidence for 14 OECD countries from 1968 to 1984. The most interesting feature of the results obtained relates to fiscal and monetary policy. Both policies are found to play an important role in the fight against unemployment[12]. Not only can McCallum's results be compared to large econometric models but to single equation[13]

estimates for individual countries such as by Layard and Nickell (1985), Sachs (1983), Symons and Layard (1984), and Newell and Symons (1985), as well. More specifically, out of all the estimated coefficients presented in these studies, only the ones presented by Layard and Nickell appear to be akin to the ones generated by McCallum's model. In contrast, Newell's and Symons' (1985) evidence indicates that a significant role for fiscal policy exists but nevertheless this is confined only to France's and USA's estimates.

In another study, this time by Sarantis (1993), an investigation into the role of income distribution in the determination of unemployment was conducted. Developed in a post Keynesian spirit, his model was applied to ten OECD countries for the 1960-1989 period. [14]

The theoretical framework of Sarantis' model[15] was based on the notion that "unemployment is effectively determined by capacity utilisation which in turn depends on income distribution and aggregate demand"(Sarantis 1993: p.461). The main findings of his econometric analysis indicate that a shift in income towards labour leads to higher unemployment[16]. Moreover, strong evidence supporting the importance of monetary policy and the hypothesis that inadequacy of capital[17]equipment may result in higher unemployment were obtained.

As can be discerned by the preceding exposition of econometric studies[18], arriving at a uniform conclusion, as to how unemployment can be explained over a period of time, remains rather an equivocal issue.

3.3 Analytical Framework.

In this study an analytical framework, which differs substantially from the orthodox neoclassical paradigm, is developed, investigating the notion that the nature of macroeconomic policy conditions aggregate demand and therefore unemployment. Following the Post Keynesian-Kaleckian tradition, it is argued that the type of economic policy - as reflected by both monetary and fiscal policies - can play a significant role in determining the economic conditions that promote full employment, and therefore economic and social stability. Consequently, the view that economic activity is galvanised through the adoption of policies tailored to stimulate private, as well as public investment, is of paramount significance throughout this analysis[19].

The anti-inflationary[20] spirit through which economic policy is conveyed in EU region, has circumscribed the autonomy of macroeconomic policy, and in effect, the viability of expansionary policies. Demand-stimulating economic policies have been severely criticised and inevitably rejected[21] on the grounds that the ensuing economic expansions will be breached, since the financing of deficits will lead to an explosive and unsustainable growth in the ratio of public debt to GDP.

In our analysis, despite the scathing criticism public deficits[22] have come in for, it is strongly believed that their inherent expansionary attributes[23] are conducive to economic progress and therefore, constitute a necessary implement with which contemporary economies will be able to surmount their economic *impasse.* In this sense, restrictive macroeconomic policies cause unemployment via their effect on aggregate demand.

In addition, income policies are also central to this analysis, in so far as income distribution is inextricably linked with aggregate demand, and therefore, with

unemployment. The reasoning behind it draws heavily on the notion that an increase in profits will shift income distribution away from wage earners, and therefore reduce aggregate demand[24]. Such a mechanism can be represented by the following set of equations (see glossary in table 1 for explanation of mathematical symbols):

The share of profits and the wage share are given by (see Appendix I for derivations):

$$(\theta PK) / (PY) = \varphi / (1 + \varphi) \qquad (1)$$

and

$$(WN) / (PY) = 1/ (1 + \varphi) \qquad (2)$$

respectively; where θ is the profit rate, P is price, K is capital stock, Y is real output, W is wages, N is employment, and φ is the mark-up[25].

Following the pricing rule we can obtain the share of profits in the value of output which is given by equation (1), and the wage share which is given by equation (2). Both equations suggest that increases in the realized mark-up leads to an increase in profit share at the expense of wage share[26]. In other words, income distribution[27] is basically determined by the mark-up.

Since our main theoretical framework is predicated on the contention that the components of aggregate demand condition the level of employment, our econometric model uses the following goods market equilibrium condition (see Appendix II):

$$C + (x_0 + x_1\theta - x_2 i + x_3\omega) + G + (g_0 - g_1\xi - g_3\omega) = (1 - \tau_\pi)\lambda_1\theta \qquad (3)$$

Therefore equation (3) equates the aggregate demand injections to national savings.

The left hand-side comprises (i)consumption C, (ii)investment , which depends positively on the profit rate θ, negatively on interest rates r, and positively on capacity utilization ω; (iii) net government expenditure G; and (iv) net exports which depend negatively on both exchange rates ξ, and capacity utilization[28] ω. The right hand-side represents the total national savings from profits; where τ_π stands for tax rates on profit, and λ_1 is the marginal propensity to save out of profits; where x's and g's are positive parameters.

Having demonstrated the way the wage as well as the profit share are affected by the mark-up rate, we now proceed to the next step which is to relate unemployment to a number of demand-side variables. In particular, the following model purports to explain variations in the unemployment rate through a number of variables which according to the post Keynesian tradition, play an instrumental role in determining aggregate demand. In this context, income distribution, fiscal and monetary policy, as well as international competitiveness are potential factors that, through aggregate demand, affect employment creation.

$$U = U(L, B, r, M) \qquad (4)$$

$$- \; + \; + \; +$$

Equation (4)[29] states that the unemployment rate *(U)* depends negatively on income distribution which is measured by the actual labour share of output *(L)*[30]; positively on government budget surplus *(B)*; positively on the interest rate *(r)*[31], and positively on imports[32] *(M)*.

In this particular model, the interest rate *r*, rather than money supply as in mainstream economics, has been used as the monetary instrument[33]. Our initial objective to construct, and ultimately estimate a model which will provide further insight into the factors responsible for inducing variations in labour demand, has to a large extent been fulfilled.

Note that in the above model both the monetary and the fiscal variables are sufficient to capture the effects of contractionary policies such as the ones implied by the Maastricht Treaty. However, we introduce a dummy variable *D* in an attempt to capture the effect of the ratification of the Maastricht treaty on EU unemployment. In our case the sign of the dummy variable is expected to be of a positive nature since the platform on which our initial hypothesis has been expounded suggests that the convergence criteria might have had an adverse effect on employment in the EU region. Taking into account the latter the revised version of equation (4) takes the following form.

$$U = \beta_0 - \beta_1 L + \beta_2 B + \beta_3 r + \beta_4 M + \beta_5 D, \qquad (5)$$

where β's are positive constants.

Inherently, what distinguishes our model from a neoclassical one is the notion that in an effective demand determined equilibrium, the level of output adjusts so as to equilibrate with the level of aggregate demand. In other words, there is a sequence of possible equilibrium outcomes, the selection of which depends on the factors determining effective demand. This contrasts with the neoclassical supply constrained version of equilibrium, in that the level of output is supply constrained and the role of aggregate demand is purely confined to that of the determination of the interest rate.

Unlike the Post Keynesian approach, neoclassical theory has become synonymous with price theory[34] where distribution and growth were relegated to secondary concerns. If there was any unemployment, then the causes were rigid wages, preventing the clearing price to be reached. Moreover, neoclassical economic theory places the determination of the interest rate in the goods market, serving as a means of ensuring goods market equilibrium.

In our model money is determined by the actions of the banking system and financial intermediaries.

As far as price deflation is concerned, we regard it as ineffective[35] when dealing with unemployment. Such a contention derives from firstly, the belief that deflation impacts on debt[36] burdens, which in turn affects aggregate demand, and secondly, from the time-consuming nature of production, which means that firms are unable to recover their costs in a deflationary environment. Additionally, in neoclassical models the real wage is looked upon as being the result of bargaining between workers and firms. This contrasts with the Post Keynesian approach in which nominal wages are bargained over by workers, while real wages are determined by a process[37] over which workers have no control.

On the whole, the fundamental difference of our model in relation to a neoclassical one is that, in principle we are trying to explain variations in unemployment by putting more emphasis on the factors affecting the components of aggregate demand, such as fiscal and monetary policies. In neoclassical models the presence of the aforementioned factors are very often conspicuous by their absence, reflecting the secondary importance given to them. Therefore comparing our model to a neoclassical one in terms of the technical

aspects such as the expected signs of the parameters would not provide a better understanding as to what the real differences between the two models are.

3.4 Econometric methodology: Panel data analysis.

For conducting our econometric investigation panel data analysis has been adopted. In a nutshell, the term "panel data" refers to the pooling of observations of countries, or groups over several time periods (Baltagi 1995). Prior to estimating our model it is important that we stipulate the reasons why panel data analysis can be beneficial, as well as distinguish between the models involved in panel data analysis and the concomitant variations peculiar to them.

Amongst a number of econometricians, Hsiao (1985, 1986), Klevmarken (1989) and Solon (1989) maintain that the use of panel data analysis can be very beneficial[38] in a number of ways such: (i) panel data suggest that individual countries are heterogeneous[39]; (ii) panel data give more informative data, more variability, less collinearity[40] among other variables, more degrees of freedom and more efficiency; (iii) panel data are well suited to study duration of economic states like unemployment, and poverty; (iv) panel data can capture and measure effects that are not detectable in cross-section time-series analysis as well as provide a platform on which panel data models allows us to test more complicated behavioural models.

Models of Panel Data:

For the estimation of our model we use a data-set which consists of N cross-sectional units, denoted $i = 1,.....,N$, observed at each of T time periods, denoted $t =$

1,.....,T. We have a total of *TN* observations and y is a *(TN×1)* vector of endogenous variables and X is a *(TN×k)* matrix of exogenous variables which does not include a column of units for the constant term. In our context, we use annual data for 13 EU[41] countries from 1961 to 1998 *(so N = 13; T = 37).*

The generalized regression model provides our basic framework:

$$y_{it} = \alpha_i + \beta_i' x_{it} + \varepsilon_{it}, \qquad (6)$$

$$\varepsilon_{it} \sim i.i.d.\ (0, \sigma_i^2).$$

where α_i is a scalar, and β_i is a $(k \times 1)$ vector of slope coefficients. We assume similar variances between countries, i.e. $.\sigma_i^2 = \sigma_\varepsilon^2 \ \forall i$, and zero covariances between countries i.e. $Cov(\varepsilon_{it}, \varepsilon_{jt}) = 0$ for $i \neq j$.

We distinguish three cases of (6):

(i) The pooled model

When both α and β are common between regions, we get the pooled model:

$$y = \iota\alpha + X\beta + \varepsilon, \qquad (7)$$

where ι is a $(TN \times 1)$ column vector of ones. For this simple model, the Generalized Least Squares estimator reduces to pooled Ordinary Least Squares (OLS).

(ii)The fixed effects model

The fixed effects (or least squares dummy variables model, or within model) is based on the notion that differences across countries can be captured in differences in the constant term[42]:

$$y_{it} = \alpha_i + \beta' x_{it} + \varepsilon_{it}, \qquad (8)$$

The fixed effects model is a reasonable approach when we can be confident that the differences between countries can be viewed as parametric shifts of the regression function.

Relationships and tests between models:

Equations *(7)* and *(8)* are restricted versions of *(6)*, whereas *(7)* is a restricted form of *(8)*. Under the assumption that the ε_{it} are independently normally distributed over i and t with mean zero and variance σ^2_{ε}, F- statistics[43] can be used to test the linear restrictions postulated by *(7)* and *(8)*.

(iii) The Random effects model

If we believe that sampled cross sectional units are drawn from a large population, it may be more appropriate to use the random effects model (or variance components model), in which individual constant terms are randomly distributed across cross sectional units[44]:

$$y_{it} = \alpha + \beta' x_{it} + \mu_i + \varepsilon_{it}, \qquad (9)$$

where $E(\mu_i = 0)$, $E(\mu_i^2) = \sigma_\mu^2$, $E(\mu_i\mu_j) = 0$ *for* $i \neq j$, *and* $E(\varepsilon_{it}\,\mu_j) = 0$, *for all i, t, and j.* Thus μ_i is a random disturbance which characterizes the *ith* observation and is constant through time; it can be regarded as a collection of factors that are specific to region *i* and are not included in the regression. The above model can be estimated by Generalized Least Squares (GLS).

Following Hsiao (1986), " Whether to treat the effects as fixed or random is not an easy question to answer...It appears that one way to unify the fixed effects and random effects model is to assume from the outset that the effects are random. The fixed effects model is viewed as one in which investigators make inferences conditional on the effects that are in the sample. The random effects model is viewed as one in which investigators make unconditional or marginal inferences with respect to the population of all effects", (pp. 41-42).

The random effects model has been criticized because it neglects the possible correlation between the individual effects (μ_i) and the explanatory variables. If such correlation exists then the random effects treatment suffers from inconsistency. As Hsiao(1986) puts it, "...the issue is not whether μ_i is fixed or random. The issue is whether or not the conditional distribution of μ_i given x_i is equal to the unconditional distribution of μ_i.

However in the linear regression framework, when μ_i is correlated with x_i,, treating μ_i as fixed leads to the identical estimators of β as are obtained when such correlation is explicitly allowed for", (p.48).

Hausman (1978) devised a specification test[45] which can be used to test the orthogonality of the random effects and the regressors. It is based on the idea that under null hypothesis (H_0) of no correlation, the GLS for (9) is consistent and achieves the Cramer - Rao lower bounds, and OLS for (3) is consistent and inefficient, while under the alternative hypothesis (H_1) OLS remains consistent, but GLS is not.

3.5 Estimation and Testing.

In an endeavour to model the unemployment rate, U_t as a function of a number of demand side exogenous variables, several estimated specifications of equations *(7)* - *(9)* following a general to specific approach, were estimated (see Table 1a for Data definitions). What follows, is a presentation of the equation that was selected on the basis of the Schwarz *(S.I.C)* and Akaike *(A.I.C)* Information criteria[46]:

Fixed Effects Model

$$U_{it} = \underset{(2.8E\text{-}06)}{-1.2E\text{-}05}\ \Delta L_{it} + \underset{(0.08)}{0.21}\ \Delta B_{it} + \underset{(0.06)}{0.26}\ \Delta r_{it} + \underset{(2.3E\text{-}06)}{4.9E\text{-}06}\ \Delta M_{it} + \underset{(0.43)}{4.49}\ D_t + \varepsilon_{it},$$

(standard errors in parentheses).

$R^2 = 0.61$

S.I.C. = -2.65, *A.I.C.* = - 2.84.

The individual effects and their standard errors (see Appendix III) are reported in the following table:

Country	*Ger.*	*Fra.*	*Ita.*	*Neth*	*Bel.*	*Ire.*	*Den.*
Intercept	3.39	5.89	3.20	2.59	6.19	6.51	4.61
S.E.	0.77	0.95	0.81	0.75	0.91	0.83	1.05
Country	*Spa.*	*Por.*	*Swe.*	*Fin.*	*Aus.*	*U.K.*	
Intercept	11.8	3.15	-0.4	3.66	0.66	2.62	
S.E.	1.04	1.54	0.95	0.91	0.77	0.81	

Random Effects Model

$$U_{it} = 4.04 - 1.2\text{E-}05\ \Delta L_{it} + 0.21\ \Delta B_{it} + 0.26\ \Delta r_{it} + 4.9\text{E-}06\ \Delta M_{it} + 4.50\ D_t + \varepsilon_{it},$$

(1.39) (2.8E-06) (0.86) (0.06) (2.2E-06) (0.43)

(standard errors in parentheses)

$R^2 = 0.61$

S.I.C. = - *2.87*, *A.I.C.* = -2.77

Pooled Model

$$U_{it} = 2.66 - 1.5\text{E-}05\ \Delta L_{it} + 0.21\ \Delta B_{it} + 0.39\ \Delta r_{it} + 6.3\text{E-}06\ \Delta M_{it} + 4.90\ D_t + \varepsilon_{it},$$

(0.70) (3.1E-06) (0.12) (0.06) (2.8E-06) (0.57)

(standard errors in parentheses)

$R^2 = 0.25$

S.I.C. = -2.85, *A.I.C.* = -2.81

The following test statistics were calculated:

$$F(12,455) = 23.69, \ [p\text{ - }value = 0.00] ,$$

$$Hausman\text{ - }test\ [X^2] = 16.75, \ [p\text{ - }value = 0.00] .$$

The *F-test* suggests that the fixed effects model is preferred to the pooled model. Moreover, since the *Hausman -test* cannot accept the orthogonality of the individual effects and the regressors (at any reasonable size of the test), the fixed effects model is preferred to the random effects one. Additionally, the Akaike Information Criterion favours the fixed effects model whereas the Schwarz Information Criterion ranks the fixed effects model below both random effects and pooled models.

3.5.4. Interpretation of the fixed effects estimates.

As we can discern from the preceding empirical results, the fixed effects estimates will be our reference point. The relatively high R^2 suggests that variations in the dependent variable are explained rather satisfactorily by variations in the explanatory ones. The estimated parameters display the anticipated signs and all pass the significance test at the 5% level of significance.

Our findings show that a shift in distribution towards labour will in fact have a positive impact on European employment[47]. In our model such a contention is reflected by the negative and statistically significant coefficient of (L_{it}). Corroborating evidence concerning our prime hypothesis that the contractionary stance taken by nearly all European member states in order to meet the Maastricht rules and therefore proceeding to EMU, will have an adverse effect on European employment, is another point worth emphasizing. More specifically, the estimates of the fiscal (B_{it}) as well as the monetary (r_{it})

parameters[48] - both positive and significant - indicate that in the short run[49] any fiscal or monetary contraction such as the one implied by the convergence rules will be pernicious for the working population of Europe. Therefore the austere economic policies that have been put in place, since 1992, to arguably facilitate the transition to EMU, might have put an additional strain on policies aimed at sustaining economic growth as well as generating jobs. The next estimated parameter (M_{it}) is a measure of international competitiveness which in this model is reflected by the volume of imports. The estimated coefficient corresponding to this particular proxy suggests that an increase in the volume of imports will cause unemployment to follow suit. Finally, the fact that the dummy[50] variable was consistently positive and significant throughout all estimated models indicates the extent to which variations in unemployment could be well justified after the signing of the Maastricht Treaty.

By and large, the underlying significance of the results obtained suggests that in Europe a mix of policies designed to affect aggregate demand might be a policy alternative worth looking at should unemployment be contained once and for all.

Some further experimentation with various equations resulted in an equation that purported to translate output effects into unemployment effects as well as test the hypothesis of structural differences across countries. In this direction, we pre-multiplied each variable of equation (5) by the ratio of the Okun's Law[51] coefficients (ok_i) of each country to their mean (ok_μ).

$$U_{it} = (ok_j ok_\mu)[\beta_0 - \beta_1 \Delta L_{it} + \beta_2 \Delta B_{it} + \beta_3 \Delta r_{it} + \beta_4 \Delta M_{it} + \beta_5 D_{it}]$$

(See Appendix IV for estimation results.)

Despite the fact that the undertaken F-tests failed to accept the introduction of the structural coefficient $(ok_i ok_\mu)$, it is worth noting that the influence on the parameters reflecting the fiscal as well as the monetary stance has remained intact in all estimated models (pooled, fixed effects, and random effect) in terms of both sign and significance.

3.6 Concluding remarks.

It is beyond question that econometric models purporting to investigate the issue concerning unemployment have produced conflicting evidence as to what factors should be held accountable for variations in unemployment. In models such as those of Layard *et al* (1991) or Phelps (1994) there has been a rather cavalier dismissal of the role of the aggregate demand. Aggregate demand is seen as being totally unrelated to the distribution of income or the real wage. This paper, however, has produced some significant results, which once interpreted, reinforce the belief that aggregate-demand policies can have profound effects on the employed population of a country/region.

More specifically, by unveiling the mechanism through which changes in the wage share could affect aggregate demand and thus, unemployment, we generated evidence on the basis of which, a shift in income distribution towards labour leads to lower unemployment in euroland. Moreover, evidence regarding the way fiscal as well as monetary policies are conducted suggests that in the EU region expansionary type policies should be adopted to alleviate the current problem of unemployment. Throughout our empirical investigation, the deflationary policies that have been fostered after the ratification of the Maastricht treaty are found to add to the existing problem, exerting more pressure on the EU economies.

In essence, what is suggested, is in line with Sawyers (1998) view that if there is a level of unemployment which would be consistent with constant unemployment, then it is imperative that steps to look into the determinants of the level of unemployment as well as the degree to which it can be shifted over time with appropriate demand, income distributional and supply-side policies, must be taken.

Table 1. Variables and Symbols used is the model.

(GLOSSARY)

θ = *profit rate*

δ = *output-labour ratio, (f_N)*

ω = *output-capital ratio*

φ = *mark-up rate*

λ_I = *savings from profits*

τ_π = *tax rate on profits*

τ_w = *tax rate on wages*

ξ = *exchange rate*

r = *real interest rate*

P = *price*

Y = *real output*

N = *employment*

K = *capital stock*

W = *wage rate*

Y = *aggregate demand*

C = *real consumption*

I = *real investment*

G = *real government expenditure*

X = *net exports*

Table 2a.

U Unemployment rate - OECD, Economic Outlook.

L Compensation of employees paid by resident producers / Gross domestic product - OECD, National Accounts.

B General government budget balance as a percentage of GDP - OECD, Economic Outlook.

r Real long-run interest rate. OECD, Main Economic Indicators.

M Imports of goods and services as a percentage of GDP - OECD. Economic Outlook.

D Dummy variable - It takes the value 0 for the years prior to 1992 (ratification of the Maastricht treaty) and the value 1 for the years after.

Table 2b.

ok_j Estimated Okun's Law coefficient obtained from a regression of the unemployment rate on current and lagged GDP and time, time squared, and time cubed over the period 1961-1998 (one regression equation for each member state).

ok_μ is the 13-country mean Okun's coefficient.

Estimated Okun's Law coefficients are as follows: *Germany 0.14, France 0.18, Italy 0.47, Netherlands 0.51, Belgium 0.02, Ireland 0.29, Denmark 0.31, Spain 0.44, Portugal 0.06, Sweden 0.11, Finland 0.07, Austria 0.10, UK 0.51.*

Appendix I

Following the pricing rule we derive the profit rate:

$$PY = WN + \theta PK \qquad (I.1)$$

where Y is real output, P is the price, W is the wage rate, N is employment, K is the capital stock, and θ is the profit rate.

A short run price equation is given by equation (I.2), where P is fixed by a mark-up; where φ is the mark-up rate, and δ is the output-labour ratio (productivity).

$$P = (1 + \varphi)W/\delta \qquad (I.2)$$

The aggregate production function is given by:

$$y = f(N) = \delta N \qquad (I.3)$$

After substituting (I.2) and (I.3) into (I.1) we obtain the profit rate:

$$\theta = \{\varphi / (1 + \varphi)\}\ \omega \qquad (I.4)$$

where ω is

$$\omega = Y / K \qquad (I.5)$$

Note that the profit rate θ depends on the mark-up and the capacity utilization ω.

From (I.4) and (I.5) we derive the capital share:

$$(\theta / \omega) = \varphi / (1 + \varphi) \qquad (I.6)$$

Observe that by rewriting (I.6) we obtain equation (1) in the text.

By combining (I.2) and (I.3) we get the wage share:

$$(WN) / (PY) = 1 / (1 + \varphi) \qquad (I.7)$$

which is equation (2) in the text.

Appendix II

Equation (3) is based on the following set of equations:

$$Y = C + I + G + X \quad \text{.....}(II.1)$$

$$C = (1-\tau_{\pi})(1-\lambda_1)(\theta PK) + (1-\tau_w)(WN / PY) \quad \text{.....}(II.2)$$

$$G = \tau_{\pi} PK + \tau_w WY \quad \text{.....}(II.3)$$

$$I = (x_0 + x_1\theta - x_2 r + x_3\omega) \quad \text{.....}(II.4)$$

$$X = (g_0 - g_1\xi.-g_3\omega.) \quad \text{.....}(II.5)$$

Equation (II.1) is the aggregate demand function; where C is real consumption, I is real investment, G is real government expenditure, and X real net exports. Equation (II.2) is the consumption function; it is based on the assumption that savings come only from profits[52] *(λ_1). Equation (II.3) is the balanced government budget; in equation (II.4) investment depends on the profit rate θ, the real interest rate r, and the rate of capacity utilization ω. Finally, equation (II.5) assumes that net exports X depend on both the exchange rate ξ and capacity utilization ω.*

Appendix III

Equation (c) can be estimated by OLS, after the transformation

$$y_{it} - \bar{y}_i = \beta'(x_{it} - \bar{x}_i) + \varepsilon_{it}, \text{ (III.1)}$$

where $\bar{y}_i$ *and* $\bar{x}_i$ *are the sample means of* y_i *and* x_i *respectively, i.e*

$\bar{y}_i = \frac{\sum_{t=1}^{T} y_{it}}{T}, \bar{x}_i = \frac{\sum_{t=1}^{T} x_{it}}{T}$. *This implies that for each country (i) the intercept and its variance can be derived from:*

$$\hat{\alpha}_i = \bar{y}_i - \hat{\beta}'\bar{x}_i, and Var(\hat{a}_i) = \frac{\sigma^2}{T} + \bar{x}_i' \, Var(\hat{\beta})\hat{x}_i . \text{ (III.2)}$$

Let S_1 *denote the residual sum of squares of (6)* $S_1 = \sum_{i=1}^{N} RSS_i$, *where* RSS_i *is the residual sum of squares of the ith group). Let* S_2 *and* S_3 *denote the residual of sum of squares of models (7) and (8) respectively.*

Testing the pooled model (7) against the fixed effects model (8):

H_0 : $\alpha_1 = \alpha_2 = \ldots = \alpha_N$, *(homogeneous intercepts conditional on homogeneous slopes),*

$$F = \frac{(S_2 - S_3)/(N-1)}{S_3/(TN - N - k)} \sim F(N - 1, TN - N - k) \text{ (III.3)}$$

The transformation of the variables for GLS is given by:

$$y_{it} - y_i^* = \alpha^* - \alpha + \beta'(x_{it} - x_i),$$

where $y_i^* = \left(1-\sqrt{\theta}\right)\bar{y}_i, \alpha^* = \left(1-\sqrt{\theta}\right)\alpha, x_i^* = \left(1-\sqrt{\theta}\right)\bar{x}_i, and \theta = \frac{\sigma_i^2}{\sigma_\varepsilon^{"} + T\sigma_\mu^{"}}.$

To compute θ*, we use the variance of the fixed effects model (8) as an estimate of* σ_ε^2 *; the difference between the variances of the pooled regression (7) and the fixed effects model (8), is taken as an estimate of* σ_μ^2 *. When* $\theta = 0$*, the random effects model (9) is reduced to the fixed effects model (8). When* $\theta = 1$*, model (9) reduces to the pooled model (7).*

The Hausman test is a chi- squared test based on the Wald criterion:

$$W = \left(\hat{\beta}_3 - \hat{\beta}_4\right)' \left(\hat{\Sigma}\right)^{-1} \left(\hat{\beta}_3 - \hat{\beta}_4\right) \sim X^2 (k), \text{(III.4)}$$

where $\hat{\Sigma} = Var\left(\hat{\beta}_3\right) - Var\left(\hat{\beta}_4\right) and \hat{\beta}_3, \hat{\beta}_4$ *are the estimators of equation (8) and (9) respectively.*

Appendix IV

Dependent Variable is U_{it}

	Pooled	Fixed Effects	Random Effects
C	6.09		6.26
	(0.45)		(1.04)
$(ok_f/ok_u)\Delta L_{it}$	-1.2E-05	-3.9E-06	-5.6E-06
	(8.5E-06)	(9.9E-06)	(9.5E-06)
$(ok_f/ok_u)\Delta B_{it}$	0.21	0.19	0.18
	(0.12)	(0.09)	(0.09)
$(ok_f/ok_u)\Delta r_{it}$	0.12	0.07	0.08
	(0.03)	(0.05)	(0.04)
$(ok_f/ok_u)\Delta M_{it}$	8.4E-06	1.3E-05	1.3E-05
	(1.1E-05)	(8.7E-06)	(8.7E-06)

(standard errors in parenthesis)

Notes:

[1] Some of the most prominent general equilibrium models are the ones of Phelps (1994), Layard and Nickell (1986) and Layard, et al. (1991).

[2] Hence, the name "structuralist theories of unemployment" (Phelps 1994).

[3] An additional factor that contributes to the high frequency movements, can also be the cyclical mark-ups (Layard and Nickell 1986).

[4] According to this view, firms will always remain on the labour demand schedule. The neoclassical condition that determines employment is given by:

$$W^e / P^e = (1-1/\eta)\, MP^L$$

where η is the elasticity of demand facing the firms , MP^L is the marginal productivity of labour, W^e is expected hourly labour costs and P^e is the expected value-added price deflator (Madsen, 1998). Such a relationship suggests that employment is a negative function of expected real wages (Phelps 1994, Layard and Nickell 1986).

[5] This particular model draws heavily on previous general equilibrium models of Hoon and Phelps (1992), Phelps (1992) and Fitoussi and Phelps (1988).

[6] In Phelps' equation the real interest rate comprises a world real interest rate, and a domestic real interest rate which are debt and capital stock determined. An increase in government debt will cause unemployment to rise as it puts an upward pressure on the real interest rate. However, this is not the case when government spending is bond-financed.

[7] Phelps bases his reasoning on three fundamental assumptions: i) the government initially purchases goods from the capital-producing sector and not from the consumption-producing sector, ii) wages are indexed to a sector wide price index and iii) the investment-producing sector is more labour intensive than the consumption-producing sector.

[8] In this study Phelps used pooled time-series data for OECD countries over a period 1960-1993. Amidst a number of emerging evidence, the one worth bringing to our attention concerns the positive effect that government expenditure had on lowering unemployment, in the period 1973 to 1993. More specifically, the real government expenditure has lowered the rate of unemployment by 1.43 percentage points over the specified period.

[9] As a matter of fact, both Phelps' (1994) and Layard and Nickell's (1986) models generated results suggesting that direct taxes play a significant role in influencing the functioning of labour markets.

[10] In these models imperfections in the goods and labour markets are less important determinants of unemployment.

[11] His prime equation was the result of substituting a combined IS/LM relationship into an Okun's Law equation relating unemployment to output. For a more comprehensive analysis see McCallum (1983).

[12] The combined impact of fiscal and monetary policy was to reduce the 1979-84 change in unemployment by 2.0 percentage points in the USA, by 2.3 points in Finland, by 1.1 points in Germany and Canada.

[13] All the aforementioned studies estimating employment or unemployment equations for a number of countries over the period 1955-81, incorporate a real wage variable as well as one or more aggregate demand variables.

[14] Amongst a number of economists Palley (1996), Dutt (1984), Lustig (1980), Taylor (1985), Sawyer (1989), and Sarantis (1991) have all identified the importance that income

distribution has in affecting economic activity. In another study purported to investigate the issue of distribution and growth, Alesina and Rodrik (1991) produced evidence indicating that "inequality in income and land distribution is negatively associated with subsequent growth"(p.485).

[15] A further insight into the exposition concerning the exact derivation of the model as well as the estimates can be sought in Sarantis (1991) and (1993) respectively..

[16] This finding undermines the "underconsumption" theory of Post Keynesianism.

[17] Otherwise known as the "Kaleckian hypothesis". See Kalecki (1971).

[18] Econometric models are exposed to different forms of criticism. Mispecification problems or problems of endogeneity among variables provide often the platform on which such a criticism is based.

[19] According to Kalecki even if private investments were completely under control, it would still be impossible to ensure a state of prolonged full employment by means of investment alone because, no matter how they are maneuvered, excess productive capacity would in any case emerge. Given these circumstances, the basic cause of unemployment can only be found in under-consumption. "Private investment must be pushed up to the level sufficient to expand the productive capacity of capital equipment pari passu with the increase in population and productivity of labour..... Government expenditure on public investment and subsidies to mass consumption (financed by income tax or borrowing) must be such as to create full employment in combination with this level of private investment. The division of public spending between public investment and subsidizing consumption should be based on the principle of social priorities"(Kalecki, 1994, pp57-58).
It is worth stressing Keynes's scepticism about the possibility of relying on private investments entirely, which led him to believe in the necessity of " a somewhat comprehensive socialisation of investment" as the only means of securing an approximation to full employment" (Keynes, 1936a p.378).
Despite their association with deficits, publicly funded investment programmes can contribute immensely to job-creation.

[20] Kirshner (1998) points out that the deflationary bias that characterizes capitalist economies "represents the interest of some elements of society at the expense of others. Specifically, it trades off some inflation for some economic growth, a trade-off which is preferred by powerful sectors of society but which leads to slower growth and higher unemployment"(p.55).

[21] The maintenance of full employment through government spending financed by loans has been widely discussed in recent years. According to Kalecki the whole debate has been revolving around economic aspects without paying due consideration to political aspects. He asserts that the maintenance of full employment in a capitalist economy is fallacious. In the same line of argument he states that the misgivings of big business about maintenance of full employment by government spending are of a paramount importance. This attitude is not easy to explain. Clearly, higher output and full employment benefits both workers, and businessmen since profits grow. Moreover, a full employment policy based on loan financed government spending does not encroach upon profits because it does not involve additional taxation. *The big question that follows is why do not businessmen accept a synthetic boom which the Government is able to offer them?*

Kalecki ascribes this opposition of the industrial leaders to full employment through government spending to firstly, the dislike of Government's interference in the problem of employment as such, secondly, the dislike of the direction of government spending (public investment and subsidising consumption) and thirdly, the dislike of the social and political changes resulting from the maintenance of full employment.

[22] Cripps and Ward (1994) ascribe the unprecedented high levels of budget deficits, observed in the EU region, to the ineffectual neoliberal policies adopted in the past, rather than policies aimed to boost aggregate demand. They therefore, propose that the budget deficit ceilings imposed on EU member states by the Maaastrich treaty should be abandoned.

[23] It has been widely acknowledged that Keynesian fiscal expedients are ultimately self-financing because of their profound expansionary influence on output and national income and therefore tax revenue. (Glyn and Rowthorn, 1994). It should be noted however, that their analysis concerns demand constrained economies. (For more on the effectiveness of expansionary policies see also Grieve-Smith 1994, Kirshner 1998, Grahl 1997).

[24] Sidney Weintraub was one of the first scholars to elaborate on issues concerning the effects of the wage share on aggregate demand. (For a more comprehensive analysis on the wage share as well as on price theories of distribution see Weintraub 1958, 1961, 1963).

[25] A similar procedure is fostered by Taylor (1985), and Sarantis (1991).
Under different circumstances equation 2 (see Sarantis 1991) could have accounted for the negative effect -highlighted by Kalecki (1971: p.64) - that the share of imported intermediates has on the labour share.

[26] Mark-up is defined as price over average cost rather than marginal cost. According to Rowthorn (1977) however, mark-ups can be far from exogenous in a sense that the determination of income distribution is the result of class conflicts.

[27] According to Kalecki (1942) – Kaldor (1955/56) the level of aggregate demand is adversely affected by shifts in the distribution of income that favour profits over wages. Their economic explanation behind such a contention is that marginal propensity to save out of profits exceeds the marginal propensity to save out of wage income. In other words, capitalists have a lower propensity to consume. See also Sawyer (1989), Kuznets (1965), Asimakopoulos (1980-1).

[28] It has to be stressed that the assumption of capacity utilization influencing net exports is far from a mainstream one. Thirlwall (1986) provides a framework according to which insufficient capacity to supply exports is ascribed to the notion that by boosting domestic demand businesses become more profitable.

[29] Equation (4) is in line with Sarantis' 'stagnationist' model of which the mathematical solutions can be found in Sarantis's (1991). The term stagnationist refers to models which assume that "both the growth rate and the level of capacity utilisation can be different under different conditions of income distribution and/or macroeconomic policy...." (Taylor 1985).

[30] The expected negative sign suggests that a shift in income distribution towards labour, will have a positive effect on capacity utilization (see Dutt 1984, and Sawyer, 1989) and hence, employment.

[31] Due to unprecedented high levels of interest rates, investment rates in the 1980s and 90s were lower than those in the 1960s in more or less in all OECD countries (Rowthorn 1996). Such a downward trend in investment rates may be translated into higher unemployment if the elasticity of substitution between capital and labour is below unity. A failure of capital to keep up with the growth of labour supply will result in falling wage share, and therefore higher unemployment.

[32] Unlike Sarantis we have employed imports rather than exchange rates as a measure of international competitiveness. An increase in the volume of imports will have adverse effect on effective demand and thus, employment, mainly, due to the pressure that a shift in expenditure from home-produced goods to foreign commodities entails.

[33] This is in line with the Post Keynesian approach to money and credit, according to which the conviction regarding the mechanism of the creation of loans has been reversed i.e. it is the bank lending that creates deposits. For further analysis see Palley (1991), Moore (1983), Goodhart (1989), Pollin (1991), Harcourt *et al.* (1998), Kirshner (1998).

[34] According to the tenets of neoclassical economics, employment, saving, investment, the rate of interest and relative prices were all determined within the real sector. The price level was seen as being a monetary variable determined within the monetary sector, through the quantity theory. In the long run, the price level was perceived as exogenous to the real sector, being determined by the supply and demand for money. As a result in the long run, monetary variables could not affect real variables (neutrality of money).

[35] As we saw in chapter 1, according to Keynes deflation may stimulate employment via its influence on the interest rate (Keynes effect). However, such a contention is subject to money being fixed and most crucially to marginal efficiency of capital schedule being stable. This mechanism is the same as using monetary policy to expand money supply which is a more preferable option.

[36] Since debt is endogenously produced and its nominal price is fixed (denominated in money) any changes in the general price level change the real value of debts and debt service burdens which in turn impacts on aggregate demand (Fisher debt effect).

[37] It should be stressed that within the Post Keynesian community, there is no fixed agreement, as to how this process comes about. For those who adopt the Sraffian (1960) approach, the determination of real wage depends on the determination of the profit rate, whereas for those who share Keynes' approach, the real wage is determined by the equilibrium level of output and employment.

[38] However, as in every discipline that deals with this kind of inferences, a number of limitations should always be taken into account before arriving at any conclusions. For an extensive discussion on problems that arise when using panel data see Kapsprzyk (1989), Bailar (1989).

[39] Such a heterogeneity that is not controlled in time series and cross-section studies may result in biased outcome (see Moulton 1986, 1987).

[40] It is widely held that time-series studies suffer from multicollinearity.

[41] Due to unavailability of data Luxembourg and Greece are not included in our data set.

[42] See Appendix III.

[43] See Appendix III.

[44] See Appendix III.

[45] See Appendix IV.

[46] We minimize the Schwarz *(S.I.C)* and Akaike *(A.I.C)* Information criteria given by:

$$S.I.C = -\frac{k \ln T}{T} + \ln\left(\frac{uu}{T}\right), and$$

$$A.I.C = -\frac{2k}{T} + \ln\left(\frac{uu}{T}\right),$$

where *k, T,* and *(u u)* refer to the number of parameters, number of observations and the sum of squared residuals of the estimated equations, respectively. Note that Schwarz criterion penalizes more any loss in the degrees of freedom than the Akaike one.

[47] This finding is in line with the traditional under-consumption theory of Post Keynesianism whilst in conflict with what Sarantis' model predicted.

[48] Similar results were obtained by McCallum (1986), Layard and Nickell (1985) and Sachs (1983). The mechanism through which the adoption of restrictive policies affect unemployment has been touched upon in the preceding chapters.

[49] The estimated equation reflects short run effects since we have taken the first difference. A point however, that has to be stressed is that even when we excluded the dummy variable from the model, and used levels for our estimation, the coefficients of the policy and monetary parameters were found to exhibit the same consistency in terms of the sign and significance.

[50] The consistency regarding the sign as well as the level of significance of the dummy was uniform throughout all models that we estimated.

[51] The relationship between real growth and changes in the unemployment rate is known as Okun's Law. It states that the unemployment rate declines when growth is above the trend rate of 2.25 per cent. According to Galbraith (1997) Okun's Law is a more reliable empirical rule than the Philips curve. For every percentage point of growth in real GDP above the trend rate that is sustained for a year, the unemployment rate declines by one-half percentage point.
The estimated Okun's coefficients for every country are presented in Table 2b.

[52] Such a contention reflects the Marxian-Kaleckian nature of our framework (for more on this see Taylor 1985, Dutt 1984, Pitelis 1994-95).

Chapter 4

Capital Shortages and European Unemployment: Some Empirical evidence

4.1 Introduction.

The neoliberal spirit by which economic policy has been conducted in the EU region over the past 20 years might have disrupted the way labour markets have functioned. Unemployment has gathered momentum reaching alarming proportions. The uniformity of the unemployment experience throughout the EU outweighs the particular economic situations and domestic economic structures of individual countries. The common experience suggests that the causes and the persistence[1] of high unemployment are related to factors that have influenced all EU countries in a broadly similar manner, rather than in the individual circumstances of each country. Many possible sources for this common problem have been cited and investigated in the contemporary literature.[2] A growing body of research focuses on the relationship between capital shortages and unemployment, as well as on the adverse impact the macroeconomic policies that have been implemented in Europe since the late 1970s have had on capital accumulation.

Essentially, the main objective of this chapter is to investigate the underlying issue and ultimately provide an insight into the empirically under-investigated relationship between capital stock and unemployment. The rest of the chapter is

organized as follows: section 4.2 dwells upon the existing theoretical approaches that link the two variables in question, whilst section 4.3 offers a substantive review of the various channels through which macroeconomic policy might have led to the erosion of capacity, and most significantly, to the destruction of an economic environment that was conducive to job-creation. Section 4.4 attempts to provide some empirical evidence of the extent to which demand side variables and most importantly capital stock affect unemployment, as well as to shed some light on the degree to which the shift in macroeconomic policy, as reflected by the both the collapse of Bretton Woods and the ratification of the Maastricht Treaty, has affected European unemployment. Finally, section 4.5 provides some policy conclusions.

4.2 Capital stock: A neglected issue.

Arguably, much of the contemporary investigation into the causes of unemployment revolves around the notion that the rate of unanticipated inflation is inversely related to the level of unemployment[3] (NAIRU). In other words, if unemployment is below its natural rate, unanticipated inflation will accelerate causing prices to explode. Unemployment was seen as a transitory phenomenon, which could be dealt with once inflation was curbed and markets began to clear[4]. Conversely, later writers maintain that market imperfections permeate contemporary economies and further highlight the failure of markets to clear and the resulting persistence of high unemployment[5].

Amid numerous studies seeking to identify the possible causes of unemployment, only a handful highlight the important role that capital stock plays in conditioning the way labour markets function (Giersch 1981; Malinvaud[6] 1980, 1985;

Sneessens & Dreze 1986; Carling & Soskice 1990). Within the EU region, the prolonged period of high and persistent unemployment over the last decades has taken its toll. The resulting erosion in industrial capacity has cast considerable doubts as to whether the remaining capacity is sufficient to provide job opportunities to the whole of the potential labour force (Rowthorn, 1995; Grieve-Smith, 1996; Kitson and Michie, 1996; Arestis and Sawyer, 1998).

Arguably, effective capacity is far from adequate to employ the work-force fully, and the institutional arrangements that prevent a high demand for labour leading to a wage/price spiral have been dismantled. Rebuilding of lost capacity is therefore a key requirement for restoring full employment (Grieve-Smith 1996).

Potentially, decisions to invest in new capacity are influenced by the cost and availability of capital and the target rates of return sought by firms and financial institutions. The contemporary practice of manipulating interest rates both to combat inflation and to bolster weak currencies creates a bias towards higher real interest rates.

Michie and Grieve-Smith (1996) explain how the dependence of so many businesses on bank loans rather than equity holdings is an important factor limiting expansion, particularly in high-technology or high-risk sectors. They go on to state that industrial capital is clearly not a market where the needs of the customer have been matched by the development of the appropriate products[7].

Overvalued exchange rates and high interest rates have dominated Europe's macroeconomic[8] policy over the past thirty years[9]. The current exchange rate regime uses the Deutschmark as a reference point around which the rest of the currencies are floating. Any devaluation concomitant to expansionary policies that are pursued by different countries will result in stealing jobs from the others. A regime that creates

such an environment, "in which member states compete over the allocation of employment between them is hardly conducive to fiscal coordination"(Eatwell 1995, pp. 282-3).

The repercussions of such policies have been pernicious to manufacturing, while industrial policy has been ineffectual, with little attempt to use the public sector as a modernizing force[10]. In addition, the steady upward trend of interest rates in conjunction with their unprecedented volatility has contributed to impeding investment and business confidence[11].

A number of studies conducted across EU have identified interest rate policy during the 1980s as the main government policy which has inhibited the growth of firms[12]. Since 1979, EU's governments main preoccupation has been the targeting of nominal variables (inflation and interest rates) rather than real variables (jobs and output). The extent of the post-1979 recession forced a number of firms to reduce capacity in order to minimize short-term costs and maximize the possibility of survival.

In the 1990s, job security for middle-class workers was impaired by cuts in social security provision and higher manual unemployment, while their bargaining power has been weakened considerably[13]. The view that wage demands had been excessive means that the capital share of income and rates of return to capital should have fallen, or at least remained constant, over the 1980s and 1990s. The large increase in almost every European nation since 1979 in both the capital share of corporate income and in the return to capital (see Table, Appendix I,) argues against the view that excessive worker demands have generated high unemployment. Instead, the profit data suggest that workers, in aggregate, have made significant concessions to capital over the

last two decades, casting significant doubt on the belief that excessive labor power lies at the root of European unemployment.

Despite the profit recovery of the 1980s and 1990s, the rate of growth of capital stock has slowed down in most of OECD countries[14] (see Tables, Appendix II). Companies prefer remaining liquid or investing in less risky forms of outlay to building in expansionary capacity (Driver 1994). In other words, companies have adopted a tighter capacity stance.

It is worth stressing that amongst all economic surveys of European unemployment the existing relationship between capital stock and employment remains under-investigated. Among a number of economists working on this area, Bean (1989) identifies uncertainty as a key issue for the investment decisions and also puts capacity utilization at centre-stage in the debate[15]. On the other hand, Rowthorn (1995) builds on this by arguing that it is the lack of capital stock and not the utilization of a given capacity that qualifies as a potential culprit for the unemployment problem in Europe[16].

Arguably, capital formation has declined in Europe since the 'Golden Age'. The fact that interest rates are at historically high levels together with low profitability constitutes a reason why capital formation has declined. According to Rowthorn (1995) the capacity problem is rejected by neoliberal economists, who regard the problem of job creation as being mainly a matter of encouraging more employment on existing capital stock and not to increase the amount of this stock.

Private investment can only increase to the extent required if expected[17] sales and profits[18] follow an upward trend; in other words, if there is expanding demand. A solution to such a 'chicken and egg' problem resides in the willingness of the public

sector to take the risk that the private sector is not capable of carrying, perhaps by indulging in some innovative public-private partnership.

4.3 Macroeconomic policy, capital formation and unemployment: A theoretical framework.

Since the 1970s deflationary measures have been taken by all major European economies[19]. Initially, the inflationary pressures exerted by the two oil-price shocks were addressed through the adoption of demand-oriented policies. As time went on, however, changes in the international financial environment, as well as the dominance of monetarism and free-market orientation, caused a significant shift in macroeconomic policy.

In Europe, the new policy consensus, strongly influenced by the free-market approach, has established a set of rules (Maastricht Treaty) and regulations (Stability Pact), which are tailored to enable the EU countries to integrate their economies. Such a process makes monetarism and neoliberalism distinct features of the policy framework in the EU in the 1990s.

The dominance of free-market doctrines has caused a structural change in the model of economic development in the EU. Neoliberalism asserts that there is no essential role that the state[20] or the public sector can play in galvanising economic activity. In this sense, the state should step aside and let market forces create the economic conditions conducive to economic growth. In this theoretical context, there is no essential role for active macro-policies in stimulating employment and output. At present, the EU's policy agenda is closely aligned with what it is proposed by

neoliberalism and conforms to its priorities: deregulation, privatisation, balanced budgets and disinflation by means of monetary restriction.

More specifically, in the field of economic policy, the dogmatic implementation of doctrines of a purely monetarist nature has paralysed macroeconomic policy. Restrictive money and credit policies in conjunction with tight fiscal policies have been put in place to suppress inflation[21]. Choosing the control of inflation as the main policy objective implies that there is no room for an explicit employment policy. According to the dominant view, persistence in unemployment is put down to labour market rigidities, which together with poor education and motivation are preventing the unemployed from getting work on existing capital stock (Layard & Nickell, 1986; Layard & Jackman, 1991).[22]

In other words, the neoliberal tradition considers unemployment to be totally unaffected by the amount of capital stock. In spite of the recognition by those authors that, under certain conditions, capital stock might have some influence on inflation and unemployment, they never argue in favour of such a possibility, particularly in their policy suggestions.[23] The aforementioned argument is rather pervasive in reports such as the OECD, Jobs study (1994a) and the OECD, Economic outlook (1994b). Any policy choice is reduced to recommendations for more flexibility in the labour market, wage austerity and lower social standards as means to reduce the cost of labour (CEPR, 1995).

This perspective of unemployment as well as its policy implications may be coherent from a free-market standpoint. However, it overlooks the possibility that the new restrictive policy regime, which has been established in Europe since the 1970s, may have negatively affected unemployment.

One possible channel for such a development is through the effects that the prevalent neoliberal dogma has had on capital stock. A growing body of literature has observed that the reliance on deflationary macroeconomic policies to combat inflation is likely to have led to an erosion of industrial capacity in many countries in the EU (e.g. Rowthorn, 1995; Grieve-Smith, 1996; Kitson & Michie, 1996; Michie & Grieve-Smith 1996; Carling & Soskice 1990). Capacity deficiencies may have operated as a significant constraint on full employment in these countries.

The importance of capital stock for employment has been stressed by many scholars (e.g. Malinvaud 1985; Bean, 1989, 1994; Rowthorn, 1995, 1999; Grieve-Smith, 1996), who have pointed out that low investment in manufacturing in many European countries has been a significant factor behind the dramatic rise in European unemployment[24]. In this perspective, education and training programmes attract concern, but they are considered to be inadequate to tackle unemployment. The lack of job opportunities is more crucial. A major reduction in unemployment requires additional investment[25] in productive capacity that will create jobs. Rowthorn (1995) maintains that this aspect to the unemployment problem has been neglected in the enthusiasm for labour-market issues.

Arguably, in capitalist economies entrepreneurs' decisions to advance money and effectively engage in investment activities depends on expectations of future profitability. Policies tailored to boost the components of aggregate demand might be characterised as congenial to expectations for future profitability since the budget surplus they generate is sufficient to finance future investment. However, in a world of uncertainty, the existing conflict between the industrial and financial sector is a destabilising factor that leads the economy to *impasse* mainly due to the constraints

imposed by the rentiers on the liquidity funds available for financing investment undertaken in the industrial sector as well as due to the proclivity of the financial sector to speculate in FOREX markets. A potential measure to deal with a situation where vested interests play a pivotal role in determining the growth of investment would be to socialise investment (Keynes 1936).

The ability of the state to withstand pressures for speculative financial gains can contribute immensely to channelling funds and effort into projects purported to preserve stability of aggregate investment. In addition, within the current financial regime short-term monetary flows undermine serious attempts to stimulate employment and growth. Therefore, a reform of the rules of the existing financial markets must take precedence over short-term speculation or arbitrage driven capital flows.

Demand-side considerations.

Let us now try and specify the channels through which the restrictive macroeconomic policy regime might have affected negatively productive capacity and unemployment. On the demand side, the long implementation of restrictive[26] macroeconomic policies is likely to have contributed to a productive investment failure in the EU. Lack of investment, in turn, has constrained technological progress and the expansion of demand to the levels required to restore full employment. As Scott (1992) has argued, any type of investment creates new investment opportunities and *visa versa*. The cumulative effect of this process has caused capacity problems.

Keynesianism asserts that investment responds to demand as well as to expected growth of demand.[27] Grieve-Smith (1996) advances this argument by stating that there is a distinct danger in the current economic situation that an increase in demand will

lead to shortages in capacity and to inflationary price increases, while unemployment might still remain high[28]. The rebuilding of lost capacity is therefore a key requirement for restoring full employment.

Firms' decisions to expand capacity are based on their expectations of future sales and their perception of risk (Grieve-Smith, 1996; Driver, 1996) in relation to the policy objectives set by governments. In so far as demand does not expand sufficiently to meet the capacity's expansion, such a risk becomes evident. Over the last two decades, and especially in the 1990s, expectations have been formed predominantly through the implementation of deflationary policies across the EU. The restrictive nature of macroeconomic policy has had an adverse effect on aggregate demand, sales and in effect on firms' investment decision. Grieve-Smith (1996) points out that firms need to be confident that demand will grow at such a rate as to validate any expansion of their capacity. Negative experiences and information about the stance of macroeconomic policy and the growth rate of demand make managers cautious about overestimating future sales, since the penalties associated with such practices tend to be much greater than for losing potential business by failing to expand.

The risk of investing in capacity that will not be fully utilised is related to the possibility of sales' failure and the consequent fall in firms' profits, as well as the ability of firms to absorb it. The latter links the demand with the supply side factors that lie behind the capacity limits on employment. In so far as the cost of expanding capacity is capital costs, the crucial factors that influence decisions to invest in new capacity are the cost and availability of capital (Rowthorn, 1995; Grieve-Smith, 1996).

The implementation of a restrictive monetary policy to combat inflation has created a bias towards high real interest rates. In addition, the higher interest rates[29]

could be partially attributed to the global, monetary and financial environment that emerged after the collapse of Bretton Woods. Globalization of financial markets and international financial competition, in conjunction with highly mobile and speculative capital has increased volatility in government bond prices, which, together with exchange rate instability and currency speculation, have increased the risk premium on lending. High interest rates may have inhibited start-up projects and further discouraged investment and business confidence. Interest rate policies since the 1980s have been identified as the main government policy that has impeded the growth of firms (Kitson and Michie, 1996).

Amid a number of channels through which changes in aggregate demand may bring about changes in the equilibrium rate of unemployment, the role of capacity scrapping, within a 'hysteresis[30]' framework, is given considerable prominence (Sneessens & Dreze 1986; van der Klundert & van Syhaik 1989). More specifically, a fall in aggregate demand will affect capacity utilisation and, through this, investment[31]. The resulting lower investment induced by lower rates of capacity utilisation causes the size of the capital stock to shrink, which in turn, at least in the medium run, causes the rates of capacity utilisation to rise again. At high rates of capacity utilisation there are reasons to believe that profit margins are widened. "If each firm is aware that its competitors will be unable to take advantage of the price rise by holding their own price unchanged and expanding output because they lack capacity to do so, then price increases at high rates of capacity utilisation may occur" (Carling & Soskice (1990, p.447). The resulting price increase due to shortages in capacity will induce upward movements to the equilibrium rate of unemployment. In short, higher demand[32] would

have a positive effect on capacity utilisation and through this on investment, which in turn would lower the equilibrium rate of unemployment at least in the medium-run[33].

4.4 Capital stock and unemployment: An empirical investigation.

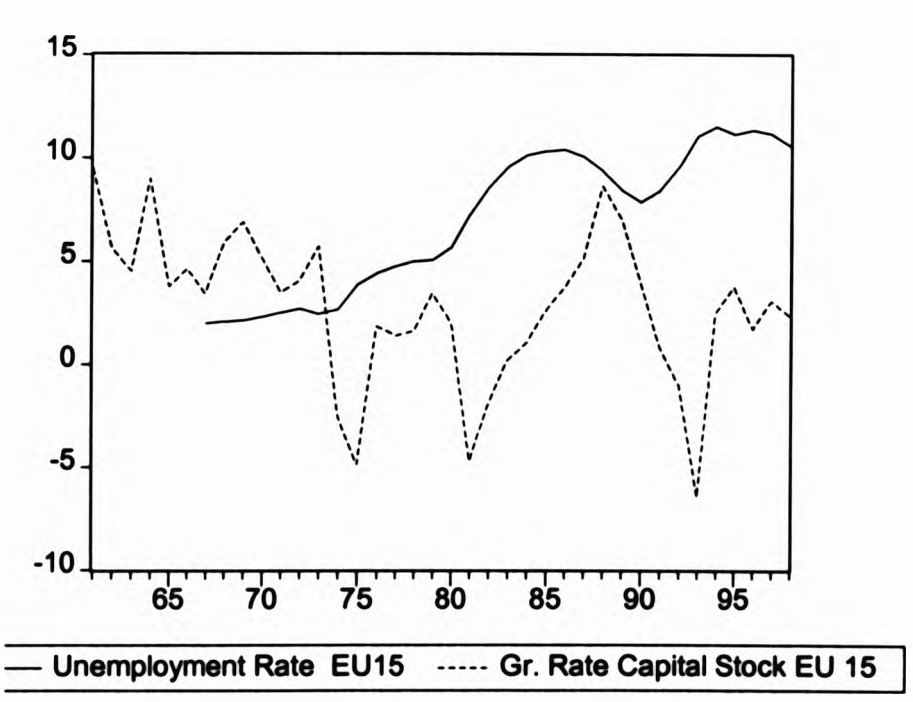
Prior to embarking on the econometric analysis it is essential that we trace the movements of both variables in question over the last four decades. Table 1. and chart (a), illustrate the extent to which the unemployment rate, as well as the growth rate of capital stock have fluctuated in the EU over the period 1961[34]-1998.

Table 1. Unemployment Rate and Capital Stock (averages).

Period	Unemployment Rate (EU-15)	Capital Stock (Growth Rates, EU-15)
1961-1966	-	6.2
1967-1972	2.5	4.8
1973-1978	3.8	0.5
1979-1984	7.7	0.1
1985-1991	9.2	4.6
1992-1998	10.9	0.8

Source: OECD Economic Outlook, OECD Flows and Stocks of Fixed Capital.

Chart (a). Unemployment Rate Vs. Capital Stock



As can be discerned, the variables exhibit inverse patterns. More specifically, the unemployment rate in all EU countries has been gathering momentum reaching alarming proportions in the last two decades. As for the growth rate of capital stock the preceding chart suggests that the underlying pattern is characterised by a declining and very unstable trend. On the basis of the preceding analysis, the observed behaviour of the variables in question could, to a certain extent, be attributed to the emerging neoliberal economic environment that has prevailed in the EU region since the demise of Bretton Woods and most importantly since the ratification of the Maastrich Treaty.

4.4.1 Econometric analysis.

Having exposed the way economic policy affects capital stock and through this unemployment (see Appendix IV for causality tests[35]), it would be appropriate to set up a model reflecting the post Keynesian nature of the framework within which the main hypothesis has been expounded. It should be emphasized that in this model the *log* of capital stock K_t rather than investment I_t has been used. In other words, we define $I_t \equiv \Delta K_t$.[36]

$$U = U(L, C, G, K, NX) \qquad (1)$$

- - - - -

Equation *(1)* states that unemployment *(U)* depends negatively on all explanatory variables i.e. income distribution *(L)*, private consumption *(C)*, government expenditure *(G)*, capital stock *(K)*, and net exports *(NX)*. In other words, the unemployment rate is a function of the components of aggregate demand and a variable the inclusion of which is to capture effects in income distribution.

Further, in an attempt to investigate this relationship in a more comprehensive way, the inclusion of two dummy variables was deemed necessary.[37] Such a practice will seek to capture the effect of the shift in economic policy - fueled by the emergence of the neoliberal consensus and reflected by two significant historically economic developments: the collapse of Bretton Woods, and the ratification of the Maastricht Treaty - on job creation. A revised version of equation *(1)* could therefore be expressed as follows:

$$U_{it} = \beta_0 - \beta_1 L_{it} - \beta_2 C_{it} - \beta_3 G - \beta_4 K_{it} - \beta_5 NX_{it} + \beta_6 D_t + \beta_7 D_t^* \qquad (2)$$

where β*'s* are positive constants.

4.4.2 Estimation results.

For the econometric investigation, panel[38] data analysis has been adopted. The data-set used for the empirical analysis consists of N cross-sectional units, denoted $i = 1,....,N$, observed at each of T time periods, denoted $t = 1,....,T$. In this context, annual data for 12 EU countries[39] from 1961 to 1998, *(so $N = 12$; $T = 37$)* has been collated.

On the methodological front, a general to specific approach was used to estimate our model. Initially, we set out by estimating a general model of the following form:

$$U_{it} = \beta_0 - \beta_1 L_{it} - \beta_2 C_{it} - \beta_3 G - \beta_4 K_{it} - \beta_5 X_{it} + \beta_6 M_{it} + \beta_7 D_t + \beta_8 D_t^* \qquad (3)$$

where β*'s* are positive constants.

Essentially, equation (3) differs from equation (2) in that, in equation (3) both exports *(X)* and imports *(M)* were included instead of net exports *(NX)*. The reason for this was to establish the extent to which the estimation results allows us to use the difference of both variables i.e. net exports *(NX)*. On the basis of the results obtained (see Appendix III) both variables were found to be insignificant and of the same sign. Moreover, the Wald test (F-statistic = 0.084, Prob.= 0.9143; $X^2 = 0.168$, Prob.= 0.9142) failed to reject the Null hypothesis i.e. that the slope coefficients were zero. Thus, both exports *(X)* and imports *(M)* were dropped form the equation. The new equation therefore has taken the following form:

$$U_{it} = \beta_0 - \beta_1 L_{it} - \beta_2 C_{it} - \beta_3 G - \beta_4 K_{it} + \beta_5 D_t + \beta_6 D_t^* \qquad (4)$$

where β*'s* are positive constants.

What follows is the presentation of the equation that was selected on the basis of the Schwarz *(S.I.C)* and Akaike *(A.I.C)* Information criteria as well on a number of selection tests[40], [F-test*: F(11,420)* = 21.34, p-value = 0.00, Hausman-test: (X^2) =17.51, p-value = 0.00]. According to these test the fixed effects model is preferred to both pooled model and random effects model (see Appendix III):

Fixed Effects model

$$U_{it} = -0.23 L_{it} - 0.13 C_{it} - 0.08 G_{it} - 0.49 K_{it} + 0.01 D_t + 0.04 D_t^* + \varepsilon_{it}$$

(0.04) (0.04) (0.03) (0.08) (0.004) (0.003)

(standard errors in parentheses).

$R^2 = 0.78$

S.I.C = -2.73, *A.I.C* = -2.91.

The individual effects and their standard errors are presented in the table 2:

Table 2. Individual Effects (Fixed Effects Model).

Country	***Fra.***	***Ita.***	***Net.***	***Bel.***	***Ire.***	***Den.***
Intercept	.10	.11	.06	.09	.13	.09
S.E.	.007	.006	.005	.005	.005	.005
Country	***Spa.***	***Swe.***	***Fin.***	***Aus.***	***U.K***	***Ger.***
Intercept	.17	.05	.07	.06	.07	.07
S.E.	.008	.006	.005	.006	.005	.006

4.4.3 Interpretation of the fixed effects estimates.

On the basis of the results obtained it can be discerned that the individual effects have the anticipated signs and all pass the significance test at the 5 percent level. As for the rest of the parameters of the equation estimated, all bear the expected sign and are significant at the 5 percent level of significance with only exception of the coefficient of the Maastricht dummy (D_t) variable which is significant at the 11 percent significance level.

Since the main elaboration of this chapter has been with regard to capital stock it would make sense if we started the interpretation of the estimation results with this variable. In particular, the negative and statistically significant coefficient of capital

stock buttresses our hypothesis that capital stock plays a significant role in influencing unemployment. A 1 percent increase in capital stock (K_{it}) will result in 0.5 percent decrease in European unemployment. Bearing in mind that the investigation undertaken revolves around capital stock in the manufacturing sector, it could be argued that an increase in capital stock in all sectors will provide additional stimulus in the process of employment creation. Moreover, the estimated coefficient of the labour share of output (L_{it}), government expenditure (G_{it}), and private consumption (C_{it}) suggest that a 1 per cent increase in these variables will cause European unemployment to decline by 0.23 %, 0.07 %, and 0.12 % respectively. The positive and statistically significant coefficients of both dummy variables reflect the adverse effects that the emergence of the new policy consensus within the EU area – as reflected by both the emergence of the new orthodoxy and the deflationary bias of the Maastricht rules - had on European employment.

In a nutshell, it could be argued that capital stock is a key factor which in conjunction with appropriate demand and incomes policies can provide answers to the question regarding measures to tackle EU unemployment.

4.5 Supply-side issues.

Having indulged in an exploration of the channels through which demand side policies affect capital formation and through this economic growth it would be more appropriate if we gave a more complete picture of the current economic situation by touching on a number of supply-side issues as well. The pace at which the current economic environment evolves has raised a number of question relating to the industrial

strategies and the role of the institutions needed to deal with contemporary economic issues such as employment, international trade, convergence.

In the 1990's the emergence of the Washington Consensus[41] which was perceived to be the embodiment of the counter-revolution in development economics (Toye, 1993) that itself grew out of the successful neoliberal attack against Keynesianism in the 1970's, proposed a set of instruments (liberalised trade, macroeconomic stability and privatisation) for achieving good economic performance. What in other words was suggested was that the only way for private markets to produce efficient allocations and growth was through free-market type policies and deregulation. Stiglitz (1998) maintained that the policies implied by the Washington Consensus are far from conducive to promoting economic stability. He very characteristically maintained that "making markets work requires more than just low inflation[42], it requires sound financial regulation, competition policy, and policies to facilitate the transfer of technology, and transparency" (Stiglitz 1998, p.1).

Within the EU region the new emerging feature is the growing concern regarding the relationship between capacity utilization and inflation. Bearing in mind the general proclivity to avoid inflation, it would appear that capacity has become a significant constraint on the achievement of lower European unemployment. Various commentators (see for example Rowthorn[43] 1995a) attribute such a development to the decline in the rate of investment since the 1960's and the squeeze on the profit share[44] in the 1970's. Whilst it might be legitimate to assume that the latter reasoning explains the current situation, does it however, follow that as the economic position is rectified investment rates will revert to their initial levels.

In answering this question the new element namely the 'transnational system of production' has to be taken into account. Currently, however this new element appears to be missing from the ongoing debate concerning industrial policy[45] (Cowling & Sugden 1996). It is worth noting that the late 1960's, the late 1970's and the late 1980's were periods of dramatic growth in foreign investment flows. It has in fact been estimated that by 1988 the total value of the capital stock of transnationals were amounted to $5,000 billion, approximately 35 percent of the combined GDP of industrial market economies and developing countries (Dunning 1993).

Within the academic community the notion that foreign direct investment is beneficial to home countries has been vigorously debated. Whilst on the one hand some authors (see for example Porter 1990) would go to any lengths to identify outward investment as a key measure for industrial competitiveness others, such as Coates and Hillard (1986); Cowling and Sudgen (1992); Dunning (1992) would brand outward investment a key contributor to deindustrialisation.

By the same token inward investment is regarded as a generator of jobs having a tremendous impact on productivity and balance of payments (Dicken, 1992). On the other hand however inward investment is reckoned to have adverse effects on the host economy. More specifically, Dunning, (1992) posits that in the short run there might be benefits to be reaped by the host country but in the longer run the story might be totally different. Pitelis, (1998) maintains that "the problems of potential long-term effects from foreign direct investment may be accentuated by the increasing bargaining power of transnational corporations *vis-a-vis* states, related in part to the locational flexibility of their operations" (p.5).

Hymer (1972) argued that the structure and organisation of the international economic system would reflect the structure and organisation of transnationals should such firms dominate the world economy. "Whilst the development of transnational investment within and between the advanced industrial countries can have a major impact on their evolution, resulting in the systematic development of the forces of deindustrialization (see Cowling & Sudgen 1994a), the recent substantial shift of the flow of foreign direct investment towards the developing countries adds a dramatic new dimension[46] (Cowling & Sudgen 1996, p.293). The new emerging pattern is thought to have contributed to the inexorable rise in unemployment in the developed world. Moreover, Pitelis (1998) argues that "international trade and foreign direct investment by transnational corporations need not automatically lead to increased competitiveness and convergence"(p.1). According to his analysis competitiveness and convergence will be facilitated by the introduction of supply-side, notably industrial policies[47].

Setting appropriate industrial policies that promote growth through international trade is a task that incumbent governments should take seriously. Experience has taught us that pursuing policies that improve the trade position of one country at the expense of another is a zero-sum game. It is therefore imperative that EU countries establish common strategies through which economic growth is achieved.

Traditional (Thatcher-Reagan-type) supply-side policies have been proved ineffectual in providing a solution to the existing problem of unemployment. "Genuine supply-side policies – that is, policies which really lead to an increased and more efficient supply of goods and services, rather than the deflationay and deregulatory policies which are so often as mis-termed 'supply-side', simply because they are being

promoted in the context of a disregard for demand conditions – require an expansion of industrial capacity, and economic capacity more generally" (Michie, 1996, p.5).

Providing a stable macroeconomic environment in conjunction with measures to enhance the skills and education of workers is of paramount importance for the development of a modern and dynamic economy[48]. It has to be stressed however that the state should assign equal weight to both investment in physical as well as human capital. "Promoting human capital is one example of complementary policy, one that can help promote economic development, equality, participation, and democracy" (Stiglitz 1998, p.10). Instead of trying to attract investment and jobs by holding down wages and working conditions for the transnational corporations, a country can reduce the cost of acquiring skills. This will add a new dimension to the existing competition for investment and jobs resulting in an upward pressure on investment subsidies.

Addressing the issue of unemployment without taking into consideration the observed imbalance between corporation and community would be a great mistake. Crafting measures to act means that corporate strategies of transnationals have to be challenged. In response, a set of new policies have to be put in place to serve and protect the interest of the community. Thus, "we need to develop an industrial economic strategy reflecting the ambitions of the community, whether local, regional, national or supranational. The focus of such a strategy therefore will centre on converting a free market economy to a democratic market economy" (Cowling & Sugden, 1996, p.301).

Nowadays, the development of new technology, to a large extent, determines the direction and form of industrial development. It is therefore imperative that governments develop appropriate policies targeting technology, for instance plans to subsidize R&D activities. In addition, safeguards should be put in place to ensure that

automatic grants and tax incentives are administered to all firms regardless of their size. Currently, large firms (accounting for most R&D) have been treated on much favourable terms than smaller ones (Geroski 1990). It is only through the latter channel that the rate of innovation is raised enabling more individuals pursue their own and their firm's development and thus encourage innovative activity. Scherer & Ross (1990) maintain that "very high concentration has a positive effect only in rare cases, and more often it is apt to retard progress by restricting the number of independent sources of initiative".

In the sketch of the above arguments, it has been suggested that the bias towards adopting restrictive macroeconomic policies is likely to have exerted enormous pressure on businesses in terms of both demand expectations and supply-side strategies to undertake new productive investment. As a results the decreasing rate of growth of productive capacity, might have inhibited the creation of new job opportunities in the EU area, contributing to the very high levels of unemployment. Within the existing system investment and jobs will be forthcoming only if profit taxes and wages are held down. Crafting a coherent set of policies for moving away from the existing system is therefore needed should steps towards a more stable economic environment are taken.

4.6 Concluding remarks.

Achieving economic conditions that promote full employment requires an investment strategy that will enable Europe to increase the quality and quantity of both equipment and structure. Within the EU region, the current policy orientation of relying on interest policy jeopardises future investment as well as the creation of productive

capacity. Training[49] as such might be perceived as being an important tool to enhance industrial performance, but giving the unemployed skills when they do not have many opportunities to use them is rather ineffectual.

The empirical findings generated suggest that one of the potential factors behind the inexorable rise in European unemployment is insufficient growth of capital stock and most importantly, inadequate aggregate demand. On the basis of the evidence obtained, the emergence of the neoliberal consensus as the prevalent dogma may be held culpable for the economic instability permeating the EU economies. The fact that both dummy variables were found to be positively-signed as well as statistically discernible suggests that the economic environment that has dominated the EU countries since the collapse of Bretton Woods and most crucially, since the ratification of the Maastricht Treaty, has added to the existing problem of unemployment and has caused industrial capacity to shrink considerably.

The existing low levels of demand within the EU area might be attributable to the monetarist and restrictive economic policies fostered by the EU member states. The immediate effect of such policies manifests itself in the erosion of the capacity to produce: plant capacity, sales organisation, skilled and experienced labour, and the number of firms have all settled down at a level consistent with high unemployment. It is therefore imperative that policies designed to increase and, most importantly, to sustain demand so that capacity is restored to full employment levels. Nonetheless, for such a prospect to be realised, it is necessary that significant changes in the current neoliberal macroeconomic structure take place.

In essence, what is needed is the implementation of a macroeconomic and industrial strategy directed towards achieving sustainable economic growth as well as

towards focusing on other structural issues, such the distribution of income; the productive nature of investment and more precisely the fact that its impact on productive capacity tends to overcome its influence on aggregate demand. Finally, measures to create conditions where a new efficient, system of small and medium-sized enterprises is capable of evolving into a more significant force in the economy, need to be taken.

Data Appendix

Definitions of Variables

U Unemployment rate, OECD, Economic Outlook.

K Capital stock, (manufacturing, growth rates). OECD Flows and Stocks of Fixed Capital.

L Compensation of employees paid by resident producers (growth rates). OECD, National Accounts.

G Government expenditure (growth rates). OECD, Economic Outlook.

C Private consumption (growth rates). OECD, Economic Outlook.

X Exports (growth rates). OECD, Economic Outlook.

M Imports (growth rates). OECD, Economic Outlook.

D_t^* Dummy Variable. Takes 0 for 1961 to 1972 and 1 for 1973 to 1998 (captures the effect of the new policy regime after the collapse of Bretton Woods).

D_t Dummy Variable. Takes 0 for 1961 to 1991 and 1 for 1992 to 1998 (captures the effect of Maastricht Treaty).

Appendix I

Table1. Capital Income Shares (%).

Country	Peak Years	1st Peak	2nd Peak	1997	C.o.c* 1980s	C.o.c* Present
Germany	1980,1992	28.5	34.5	39.1	6.0	4.6
France	1982,1992	31.2	40.2	41.0	9.0	0.8
Italy	1980,1991	35.4	36.1	41.5	0.7	5.4
UK	1979,1989	31.3	29.4	31.3	-1.9	1.9
Austria	1980,1992	-	37.4	42.8	-	5.4
Belgium	1980,1992	28.7	35.3	37.7	6.6	2.4
Denmark	1979,1991	-	34.8	35.8	-	1.0
Finland	1980,1989	30.4	29.9	34.5	-0.5	4.6
Ireland	1982,1990	21.6	30.4	35.5	8.8	5.1
Neth/ands	1980,1992	-	38.6	40.4	-	1.8
Portugal	1982,1992	35.5	33.6	35.4	-1.9	1.8
Spain	1980,1991	30.8	37.9	39.5	7.1	1.6
Sweden	1980,1990	26.4	27.4	32.3	1.0	4.9

Note: Figures for 1997 are OECD projections as of December 1997. *C.o.c*1980s* and C.o.c* Present stand for change over cycle in the 1980s and at present respectively.
Source: Schmitt & Mishel (1998).

Appendix II

Table 1. Net Profit Rates, % (manufacturing).

	61-64	65-68	69-73	74-78	79-83	84-88	89-93	94-98
France	12.6	13.9	14.6	10.7	7.4	11.1	15.3	15.2
Germany	22.7	18.7	16.9	12.6	8.6	11.8	9.2	6.5
Italy	10.4	10.1	9.7	7.8	11.8	13.6	12.2	11.1
UK	12.7	10.9	8.9	4.2	3.1	6.5	5.7	7.0
Europe	-	11.8	11.8	8.8	8.3	10.9	9.9	9.4
Std. Dev.	-	3.4	3.3	3.2	3.1	2.6	3.6	3.3

Source: Glyn, (1997).

Table 2. Growth of Capital Stock, (manufacturing).

	61-64	65-68	69-73	74-78	79-83	84-88	89-93	94-98
France	6.1	5.6	6.4	3.4	2.0	2.0	2.2	1.8
Germany	7.9	6.0	5.5	2.0	1.4	1.2	2.1	2.5
Italy	8.4	4.7	4.9	5.1	3.8	2.5	2.7	2.2
UK	3.9	3.8	3.3	2.3	1.7	1.4	0.9	0.7

Source: Glyn, (1997).

Table 3. Capital-Output Ratio (manufacturing).

	61-64	65-68	69-73	74-78	79-83	84-88	89-93	94-98
France	1.28	1.24	1.23	1.39	1.53	1.55	1.54	1.55
Germany	1.15	130	1.27	1.30	1.32	1.23	1.28	1.32
Italy	2.03	2.00	1.83	2.03	1.79	1.80	1.77	1.79
UK	1.63	1.70	1.82	2.13	2.29	1.93	1.86	1.80

Source: Glyn, (1997).

Appendix III

Table 1: Dependent Variable is U_{it}

	Pooled	Fixed Effects	Random Effects
C	0.05		0.08
	(0.009)		(0.01)
L_{it}	-0.15	-0.26	-0.26
	(0.09)	(0.04)	(0.04)
G_{it}	-0.04	-0.12	-0.11
	(0.03)	(0.04)	(0.04)
K_{it}	-0.031	-0.12	-0.13
	(0.17)	(0.11)	(0.11)
C_{it}	-0.02	-0.11	-0.12
	(0.05)	(0.04)	(0.04)
X_{it}	0.02	0.009	0.008
	(0.05)	(0.02)	(0.02)
M_{it}	0.02	0.003	0.003
	(0.02)	(0.01)	(0.01)
D_t	0.02	0.005	0.005
	(0.007)	(0.003)	(0.003)
D_t*	0.03	0.04	0.04
	(0.007)	(0.003)	(0.004)

(Standard errors in parenthesis)

Table 1: Dependent Variable is U_{it}

	Pooled	Fixed Effects	Random Effects
C	0.05		0.11
	(0.006)		(0.01)
L_{it}	-0.12	-0.23	-0.23
	(0.07)	(0.04)	(0.04)
G_{it}	-0.06	-0.08	-0.10
	(0.5)	(0.03)	(0.04)
K_{it}	-0.24	-0.49	-0.67
	(0.1)	(0.08)	(0.02)
C_{it}	-0.02	-0.13	-0.16
	(0.5)	(0.003)	(0.04)
D_t	0.02	0.006	0.0008
	(0.006)	(0.003)	(0.003)
D_t*	0.04	0.04	0.02
	(0.004)	(0.002)	(0.003)
A.I.C	-2.86	-2.91	-2.78
S.I.C	-2.69	-2.73	-2.64

(Standard errors in parenthesis)

Appendix IV

Table 1. Granger Causality Tests on Capital stock and Unemployment.

Null Hypothesis	*F-stat.*	*Prob.*
U.K		
U does not Granger Cause K	2.70	0.09
K does not Granger Cause U	8.90	0.00
FRANCE		
U does not Granger Cause K	0.00	0.98
K does not Granger Cause U	22.5	0.00
NETHERLANDS		
U does not Granger Cause K	3.10	0.08
K does not Granger Cause U	11.4	0.00
BELGIUM		
U does not Granger Cause K	0.59	0.45
K does not Granger Cause U	8.91	0.01
IRELAND		
U does not Granger Cause K	2.17	0.13
K does not Granger Cause U	4.90	0.01
DENMARK		
U does not Granger Cause K	0.02	0.88
K does not Granger Cause U	47.1	0.00
SPAIN		
U does not Granger Cause K	1.13	0.29
K does not Granger Cause U	28.7	0.00
SWEDEN		
U does not Granger Cause K	2.58	0.12
K does not Granger Cause U	9.49	0.00
FINLAND		
U does not Granger Cause K	1.07	0.31
K does not Granger Cause U	32.9	0.00
AUSTRIA		
U does not Granger Cause K	0.01	0.98
K does not Granger Cause U	15.1	0.00
GERMANY		
U does not Granger Cause K	2.66	0.11
K does not Granger Cause U	0.73	0.40
ITALY		
U does not Granger Cause K	0.11	0.74
K does not Granger Cause U	23.5	0.00

Note: Where U and K stand for unemployment rate and capital stock (growth rate) respectively. The test has been conducted at the 5% level of significance.

Notes:

[1] For a more comprehensive analysis on the persistence of unemployment see for example Alogoskoufis & Manning (1988).

[2] An extensive survey of this literature is provided by Bean (1994).

[3] According to this approach, unanticipated inflation is inherently prone to acceleration (Rowthorn 1995).

[4] Such a belief is predominantly shared by the proponents of Monetarism.

[5] "As a general rule, later writers use the term NAIRU to designate the equilibrium rate of unemployment, although their theories are not radically different from those of certain self-avowed monetarists, such as Minford & Riley (1994), who continue to use the old terminology" (Rowthorn 1995, p.27).

[6] Malinvaud (1985) embarked on the task of analyzing different types of Keynesian unemployment. Instead of assuming clearing markets (new-classical approach), he assumed that money wages and prices are fixed. He was preoccupied with the theoretical developments mainly emerging from the reinterpreters of Keynes to provide solid arguments as to whether there are temporary equilibria away from full-market clearing. With this in mind he set out to identify the circumstances under which a rise in real wages would raise (classical unemployment) or lower (Keynesian unemployment) unemployment.

[7] Banks' new products have mostly been directed at personal customers where, in the case of mortgages at any rate, the supply of capital was always adequate.

[8] In the UK for instance, the most obvious cases of sterling being overvalued as a result of macroeconomic policy were firstly, the effects of the Thatcher Government initial monetarist policies in 1979-1980 and secondly, the membership of the Exchange Rate Mechanism at an overvalued rate.

[9] A devaluation of the currency can be effective provided that industry is competitive. Economic policies that rely heavily on devaluing currencies are incapable of addressing the problem of productive capacity and, in effect, are unable to sustain full employment.

[10] Insufficient public sector investment has contributed to the short-fall in labour productivity. (For a more comprehensive analysis on this see DTI Monthly Economic Assessment – February 2000).

[11] This was particularly apparent during the early 1980s when high interest rates created cash-flow problems for many companies leading to bankruptcies and plant closures as well as contributing to the appreciation of sterling and the squeeze on exports.

[12] See for example the Cambridge survey (SBRC 1992).

[13] The notion that rising labour costs due to the bargaining power of the trade unions have an adverse effect on employment, provided the platform on which European governments shaped their policies to combat unemployment. A case in point is Mrs. Thatcher' policy to weaken the bargaining power of the unions in U.K. The results of such a course of action exacerbated rather than alleviated unemployment. Freeman (1988) provides evidence on whether unemployment is higher and economic growth lower in highly unionized states. Moreover, Manning (1992) maintains that microeconomic models of trade union activity are not particularly robust.

[14] Glyn (1997), looks into the issue of profitability by carrying out a cross-section analysis of the post-war experience of manufacturing in OECD economies. He draws attention to the significant role that the profit squeeze played in contributing to the drama of post-1973 growth slowdown. His conclusions, however, suggest that "whilst

profits do appear to be important in explaining post-war accumulation, they do not of course tell the whole story"(Centre for Economic Performance, discussion paper, No. 17).

[15] Dreze and Malinvaud (1994) called for greater funding for infrastructure and construction investment of up to ECU 250 billion over three years. They argue that sums of this magnitude would be feasible without compromising other tight economic constraints if there were a combination of public and private funding. Inevitably, however, these proposals came up against political obstacles and the prevailing macroeconomic climate in Europe.

[16] His argument revolves around the 'capital gap'.

[17] The proponents of Post-Keynesianism contend that economic growth involves capital accumulation and technological innovation, and this is achieved through investment spending on both physical capital and research and development. Investment spending is itself determined by anticipated future demand conditions, and demand growth is influenced by the capacity of the financial system to expand so as to finance greater level of demand: hence the importance of endogenous finance for the growth process.

[18] For a discussion on this see Pitelis (1987).

[19] The aversion to inflation can be detected in Mr. Lawson's 1984 lecture, in which by denying that macroeconomic policy could affect employment, he argued that it is the 'conquest of inflation, and not the pursuit of growth and employment which should be the objective of macroeconomic policy'.

[20] On the opposite side of the debate, Sebastiani (1994) maintains that systematic intervention by the state becomes necessary in order to integrate and stabilize private investment at the pace set by the growth in population and in the productivity of labour and to raise overall demand to a full-employment level. Moreover Kalecki (1943a) argues that the main obstacle to full employment is entrepreneurs' deep aversion to state intervention in this field, in spite of the advantages they would gain in the economic ground. The underlying reluctance of the captains of industry to accept government intervention is attributed to the fact that every widening of state activity is looked upon by 'business' with suspicion, and that the creation of employment by government spending has a special aspect which makes the opposition particularly intense. Kalecki's analysis is based on the so-called state of confidence. If this deteriorates, private investment declines, which results in a fall of output and employment (both directly and through the secondary effect of the fall in incomes upon consumption and investment).

"Under a laissez-faire the level of employment depends to a greater extent on the so called state of confidence. This gives the capitalists a powerful indirect control over Government policy everything which may shake the state of confidence must be carefully avoided because it would cause an economic crisis" (Kalecki, 1943a, p.350).

[21] Arestis, McCauley & Sawyer (1999) posit that the neoliberal spirit by which economic policy is pursued within the European Union is based on the notion that the formulation of economic policy cannot be entrusted to the democratic process i.e. politicians. The reason behind it lies in the view that politicians form inflationary policies that target short-term effects such as unemployment.

[22] The importance of education and training has recently been emphasised by endogenous growth models where the growth rate of productivity is associated with the level of education. An educated and motivated work-force is able to facilitate the

development of, adapt more easily to, and exploit more fully new processes and techniques of production (Romer, 1986; 1990, Lucas, 1988).

[23] Capital accumulation has no effect on unemployment only under the empirically doubtful assumption that the elasticity of substitution between labour and capital is equal to unity (see Malinvaud 1982; Rowthorn, 1999). According to this view, "the demand for labour is so elastic, that the wage increase generated by investment in new capital stock leads to a loss of employment on existing equipment which is enough to offset entirely the extra jobs created on new equipment" (Rowthorn 1999, p.414.)

[24] The erosion of physical capital stock can be thought of as a hysteresis mechanism through which low investment from the mid-1970s has meant that there is insufficient capital to employ all of the labour force at current wages.

[25] Kalecki saw investment as "the central piece de resistance of economics". He focused on the determinants of investment through a more dynamic approach. He regarded investment as the least stable part of national income, and the main cause of cycles. He saw as the main determinants of investment, the ability of firms to finance investment internally, the size of the capital stock and profits, which in turn, were determined by both the level of economic activity. In Kalecki's view, innovation plays a leading role for the long run perspectives of capitalism. However, in the same way that they constitute the predominant factor of growth they are also decisive in bringing about its halt. For Kalecki the course of stagnation in the long run is destined to prevail under laissez-faire conditions.

[26] As Arestis, McCauley & Sawyer (1999) point out the current tight monetary policy can be seen as an attempt to establish credibility of the ECB in the eyes of the financial markets.

[27] The important relationship between investment and demand is overlooked in many recent discussions of economic growth, which ignore demand constraints on the level of economic activity. Investment can increase, as well as respond to, the level of demand, affecting the scale of production as well as its structure, organisation and technological efficiency (see Scott, 1992).

[28]Smith (1996) points out that "in the short-term, keeping demand well in check will lead to a low rate of inflation; but in the longer term limiting the growth rate of capacity by limiting expectations of the growth rate of demand accentuates the danger of inflation. Keeping down the growth rate of capacity perpetuates not only high unemployment, but also the vulnerability of the economy to upturns in demand even if (as the 'Lawson boom') the economy is still operating way below full capacity" (p16).

[29] We refer to long-term interest rates. According to Kalecki (1990) it was the long term rate of interest which might influence investment decisions, and this did not exhibit market cyclical fluctuations.

[30] Additional factors within the hysteresis framework that purport to explain persistence in unemployment are the insider-outsider approach (see for e.g. Lindbeck & Snower 1986; Blanchard & Summers 1986) as well as the relationship between short-term and long-term unemployed in the pool of unemployed (see for e.g. Layard & Nickell 1986).

[31] For a more comprehensive analysis on the effects of aggregate demand on capacity utilization and investment see Soskice & Carling (1989).

[32] The maintenance of a sufficiently high level of aggregate demand can contribute towards improving the expectation of future profitability, whilst at the same time

facilitating a current budget surplus capable of financing a considerable proportion of future investment.

[33] Keynes' analysis is thought to be of significant importance only for the short run. However, through this hysteresis mechanism, Keynesian policies may have medium run effect in shifting the equilibrium rate of unemployment itself.

[34] It has to be emphasized that due to unavailability of data, the first period corresponding to the unemployment rate has been left blank.

[35] The pair-wise Granger causality tests carried out for nearly all EU countries reinforces the belief that the causality runs form capital stock to unemployment rather than the other way round. It has to be stressed however that Germany is the only country where the test is inconclusive.

[36] It should be noted that I_t is the growth rate of capital stock (in levels) under the simplifying assumption that there is no depreciation. According to Karanassou & Snower (2001) the growth rate of capital stock is given by:

$$\frac{\tilde{K}_t - \tilde{K}_{t-1}}{\tilde{K}_{t-1}} = \frac{\tilde{I}_t}{\tilde{K}_{t-1}} - \delta = K_t - K_{t-1}, \text{ since} \ldots . \ln \tilde{K}_t \equiv K_t .$$

where $\tilde{K}_t = \tilde{K}_{t-1} + \tilde{I}_t - \delta \tilde{K}_{t-1}$,

δ denotes the depreciation rate.

When the depreciation rate is positive the factor $-\delta_1 \delta$ has to be added to the constant term of the equation.

[37] See Data Appendix for definitions of variables.

[38] For a more comprehensive analysis on panel data see Chapter 3.

[39] Due to the unavailability of data Greece, Luxembourg and Portugal were not included in the estimation.

[40] For a more comprehensive analysis on the equations applied to calculate these tests see equations T-T3, Appendix IV, in Chapter 3.

[41] The term Washington consensus was coined by John Williamson in 1990 in an effort to identify a specific formula through which Latin American countries would reform their economies and effectively enhance their position in the world market. Some of the most important features of the proscribed package can be summarized as follows: fiscal discipline, tax reform, interest rate liberalization, a competitive exchange rate, trade liberalization, privatization, deregulation etc.

[42] According to various studies (see for example, (Stiglitz 1997, Bruno & Easterly 1996, Barro 1997, Fisher 1993) inflation is costly when running at considerably high levels. There is hardly any evidence however, to suggest that the costs of low levels of inflation are deleterious for growth.

[43] According to Rowthorn the deflationary policies adopted by governments in the 1970's to presumably fend off the distributional conflict instigated by rising inflation, resulted in a profit squeeze as capacity utilization fell.

[44] Mainly due to the impact of powerful unions.

[45] For a more extensive analysis on the increasing activities of transnationals see Dicken (1992), Dunning (1993).

[46] Recent studies suggest that while over the period 1987-94 inward investment to the developed world hardly changed, that to the developing world has tripled (UNCTAD, 1995).

[47] It has to be noted that "government measures may impact differently on different groups within and between countries and that they may have different short-, medium- and long-term effects.... In the context of a model of the determinants of productivity and competitiveness, productivity-enhancing measures are the best available for this purpose." (Pitelis 1998, p.1).

[48] Ireland's success story owes a great deal to the educational programme undertaken. Clearly, highly skilled workforce is instrumental in attracting foreign direct investment. Ireland undoubtedly benefited by raising educational attainment but it has also ensured that education and training programmes have been introduced to meet the needs of employers. This requires regional government and development agencies not only to advise, contribute and provide education and training programmes but also to identify what skills are required in the economy, where the skills shortages / gaps are and how they can be addressed. It is also important to tie in skills strategies with sector or cluster strategies, business development and regeneration strategies.

[49] Training as well as counselling programmes have been perceived as potential measures to deal with the unemployed. A case in point is the recommendations by the European Commission (Council Resolution of 29 May 1990) that counselling interviews in conjunction with training programmes be made available to all long-term unemployed people.

Chapter 5

Making Sense of The Stability Pact: Test for Interest Rate Spillovers Across EU Countries and Econometric Investigation of The Relationship Between Investment and Saving

5.1. Introduction.

In the EU region, the prevalence of the neoliberal consensus, as reflected by both the Maastricht criteria and the stability pact, has been the subject of intense debate within the academic community. Despite the heavy criticism of the deflationary nature of the convergence rules, the architects of the EMU were swift to reassert their authority, by introducing a new, more stringent set of rules, and procedures (the stabiltiy pact) as means of promoting fiscal discipline inside EMU. Arguably, the primary aim of the stability pact is to clarify and reinforce the deficit rule laid out in the Maastricht Treaty.

In this chapter, an investigation into the rationale behind the stability pact's enactment, will provide the platform on which a more rigorous and insightful analysis will be conducted. The organisation of this chapter is as follows: Section 5.2 dwells upon the central features of the stability pact. By analysing the main reasons for its introduction, we

expose a number of different views, and show that the Pact lacks valid theoretical foundations, and thus, its application may result in a deflationary spiral with detrimental consequences to the entire EU region. Section 5.3 explores the issues concerning the possibility of cross-country interest rate spillovers, by conducting Granger causality tests for six EU member states. Section 5.4, using econometric analysis, challenges the widely held neoliberal view that public deficits absorb national saving, raise interest rates, which in turn crowds out investment. In this context, further econometric investigation sheds some light on the macroeconomic relationship between investment and saving. Section 5.5 provides some conclusions.

5.2. Making Sense of the Stability Pact.

Following the preceding analysis on the effects of macroeconomic policy on employment, it has emerged that tight economic policies might contribute to the destruction of the economic environment responsible for nurturing the propagation of new jobs in the system. In the EU region, the new policy mix fostered by the European governments, especially after the ratification of the Maastricht Treaty[1], has been directed to ensuring price stability and sound government finances[2]. The emerging feature of this new state of affairs is the new framework (EMU[3]) within which macroeconomic policies in Europe will be pursued.

According to the principles of EMU[4], at national level, monetary autonomy is transferred to a supranational, independent authority, the European central bank, whereas budgetary policy autonomy is maintained at the national level. However, it is interesting to note that the co-ordination of the budgetary policy within the EU region will be subject to

the rules enshrined in the stability and growth pact. According to Keller (1999), the existing economic interdependence between member states necessitates the introduction of a set of rules - such as the ones embodied in the stability pact[5] - that provides the platform on which the co-ordination of budgetary policies will be conducted. In principle, the primary objective of the stability pact[6] is twofold; firstly, it sets the disciplinary budgetary boundary within which budget deficits are allowed to fluctuate, hence its preventative element, and secondly it lays out the rules for correction purposes, should any member state exceed the proscribed deficit threshold. In other words, its chief focus will be on safeguarding the credibility of monetary policy both in the short and long run[7].

Prior to embarking on any further exploration of the pact's provisions let us very succinctly, identify the main elements that this set of regulations and procedures consists of: (i) the budgetary positions of member states should be close to balance or in surplus; (ii) member states should ensure that the deficit criterion, 3 per cent of GDP, is met unless there are special circumstances; (iii) fines will be levied on any EU country that breaches the 3 per cent of GDP deficit ceiling.

The interesting aspect, however, of the above set of rules that deserves attention is the allowances that the pact makes with regard to the member states that fail to conform to its principles. The pact states that a country's qualification for automatic exemption will be subject to its economic performance. More specifically, exemption will be granted to those countries in which GDP has decreased by 2 per cent and its excess budget deficit is transitory and of a small magnitude. Those in which GDP decreases by between 0.75 per cent and 2 per cent, could also qualify for exemption provided that the Council of Ministers have agreed. As for those member states which experience an even milder recession, a

correction directive will be delivered to them in order to eliminate excessive deficits within two years. Any failure to do so will result in the imposition of fines[8].

Evidently, putting together a set of regulations and procedures, by which the member states have to abide, is a practice that aims at achieving certain objectives. What are these objectives?

- To prevent inflationary pressures within the EU region (debt bailouts)[9],
- To avoid spillovers from irresponsible budgetary policies inside EMU,
- To encourage policy co-ordination.
- To increase national saving

Arguably, monetary and budgetary policies should work in the same direction so that low inflation and sustainable growth can be achieved. A bad concoction of policies[10] may lead to high real interest rates[11], low investment and slow economic growth (Debrun 1997). According to the stability pact it is important that EU's economies are safeguarded against potential debt-bailouts; this scenario involves a country that has accumulated an obscene amount of debt which it finds impossible to service. As a result the pressure is either on the monetary authority (ECB) to accommodate the debt[12] or on the rest of the member states to bailout[13] the country in distress. "Under these circumstances, the central bank would find it difficult to credibly commit itself to price stability and other members would find their own incentives for implementing sound fiscal policies distorted" (Goldstein and Woglom 1992; p.228). Giavazzi *et al.* (1995) maintain that large deficits undermine the effectiveness of monetary policy and make public finances more fragile[14]. Therefore, balanced or in surplus

budgets will enable the entire region to reduce the dead-weight cost of taxation and make funding social security liabilities a lot easier[15].

Fundamentally, in neoclassical economics economic growth is contingent on savings (Cesaratto 1999). Thereby, the current economic practice of targeting balanced budgets[16], is based on the very notion that budget deficits absorb national saving, raise interest rates which in turn crowd out private investment[17].

Recently, within the European circles there has been much speculation regarding the possibility of negative spillovers flowing from irresponsible national budgetary policies[18]. Admittedly, uncontrollably large budget deficits within the EU region can affect interest as well as exchange rates, which in turn can result in cross-border spillovers. Co-ordination of national budgetary policy is therefore needed to ensure that such spillovers are kept at bay as well as to provide a safety margin that allows automatic stabilisers to operate effectively when the economy is in recession (Keller 1999).

Despite the multitude of reasons put forward by the pioneers of the stability pact to justify its introduction, some scepticism[19] regarding its effectiveness has started to emerge. A case in point is Buiter's (1999) qualms regarding the degree of co-ordination between monetary and fiscal policy in the EU region. Invoking the mistrust[20] rooted within the different groups in the ECB's top independent agents, he contends that co-ordination between the ECB and the 11 national finance ministers will be an interesting challenge, the impact of which is yet to be felt[21]. Artis and Winkler (1997) maintain the main inspiration for the fiscal criteria is to assist the ECB in the pursuit of price stability. However, monetary policy will be unable to deal with intra-Union asymmetric shocks. Moreover, Eichengreen and Wyplosz (1998) argue that in a region such as EU, where capital is

mobile, and EU member states borrow on global capital markets, there is little reason why it should result in cross-border interest rate spillovers[22]. Externalities such as fiscal spillovers[23] are conditional on whether the sum of national investment and the deficit exceeds national saving (Pisani-Ferry 1996). In addition, it has been argued that at national level the stability pact[24] could have an adverse effect on the operation of automatic stabilisers[25], especially when they are most needed, as well as on output[26].

Taking the preceding analysis into account, it can be very confidently argued that the rationale behind the implementation of the stability pact has been far from lucid. In the following sections an attempt to put some of the aforementioned convictions to the test in order to gain some further insight into the ongoing debate, regarding this new set of regulations and procedures, will be made.

5.3. Testing the Likelihood of Interest Rate Spillovers within EU.

The prospect of interest rate spillovers within the EU region has been central to much of the debate that favours the safeguarding attributes of the Stabiltiy Pact. Recently, Eichengreen and Wyplosz (1998) attempted to provide some evidence[27] with regard to the likelihood that such spillovers are to occur within the EU area.

In pursuing the unravelling of this issue it is imperative that econometric analysis is summoned. More specifically, a reduced form relationship between interest rates will be estimated, in order to see if and to what extent interest rates in a particular EU member state are influenced by its own values, rest of Europe values and rest of the world values. The standard econometric technique for testing hypotheses of this sort is the Granger causality test (see Appendix I). For this analysis, we used current and lagged[28] up to 15 months data

on long-term interest rates for Germany, France, Belgium, Denmark, UK, Greece, Europe, and the rest of the World[29], ranging from 1970:01 to 1999:02.

Table 1. Granger Causality Tests on Long-Term Interest Rates

Null Hypothesis	*F-stat.*	*Prob.*
Germany does not Granger Cause Europe	0.94	0.52
Europe does not Granger Cause Germany	1.06	0.39
Germany does not Granger Cause World	0.58	0.89
World does not Granger Cause Germany	1.54	0.08
France does not Granger Cause Europe	1.33	0.17
Europe does not Granger Cause France	3.33	0.03
France does not Granger Cause World	1.58	0.12
World does not Granger Cause France	4.40	0.00
Belgium does not Granger Cause Europe	1.55	0.08
Europe does not Granger Cause Belgium	1.45	0.12
Belgium does not Granger Cause World	1.39	0.14
World does not Granger Cause Belgium	3.95	0.00
UK does not Granger Cause Europe	2.01	0.05
Europe does not Granger Cause UK	3.90	0.00
UK does not Granger Cause World	1.43	0.11
World does not Granger Cause UK	3.89	0.00
Denmark does not Granger Cause Europe	1.40	0.13
Europe does not Granger Cause Denmark	0.97	0.48
Denmark does not Granger Cause World	1.24	0.25
World does not Granger Cause Denmark	1.70	0.05
Greece does not Granger Cause Europe	1.12	0.34
Europe does not Granger Cause Greece	1.41	0.15
Greece does not Granger Cause World	0.41	0.91
World does not Granger Cause Greece	0.55	0.97
Europe does not Granger Cause World	1.14	0.34
World does not Granger Cause Europe	2.89	0.00

Note: The test has been conducted at the 5% level of significance.

The most interesting aspect of the Granger causality tests presented in the above table is that while one would expect the null hypothesis corresponding to a strong economy such as Germany, i.e. Germany does not Granger cause Europe, to be rejected this not the case[30]. What is even striking however is the rejection of the null hypothesis i.e. UK does not Granger cause Europe. Furthermore, at the 5% level of significance in nearly all cases the null hypothesis that the rest of the world does not Granger cause the individual countries as well as Europe, is strongly rejected, with the only exception of Germany which appears to be significant at the 8% level and Greece where all tests are statistically insignificant. An additional feature that is worth mentioning, however, is the impact of the rest of Europe on both France and UK; both tests are statistically significant.

The undertaken tests *per se,* reinforce the argument of those, for example Buiter (1999), who propound that EU member states borrow on global capital markets and therefore there is little need to put in place an entire mechanism presumably to avert cross-border interest rate spillovers. Furthermore, the seemingly profound impact of the EU interest rates on France and the UK suggests that the causality runs from countries/groups of considerable economic magnitude to those with relatively small economies.

5.4 Gaining an Insight into the Macroeconomic Relationship Between Investment and Saving.

5.4.1 An investigation into their relationship.

Arguably, one of the fundamental reasons why current macroeconomic policy has shifted towards the elimination of budget deficits, is the emerging neoliberal consensus on how to revitalise investment. Summers and Carroll (1987) emphasise the need to augment private as well as government saving[31] in order to expand investment. To this effect the proponents of this consensus posit that public and private consumption must be contained[32] (Hatsopoulos, Krugman, and Summers 1998). In the USA such a belief is rather pervasive in Clinton's vow to cut the federal budget deficit[33]. In Europe the new policy consensus, as implied by both the convergence criteria and the Stability pact, appears to be in line with the tenets of the neoliberal orthodoxy.

By and large, it is beyond any question that sound government finances may indeed be an important factor that conditions economic progress. Nonetheless, the notion that saving must be boosted in order to expand investment, is a contention that has to be taken with a 'pinch of salt'.

Prior to engaging in an econometric investigation, it would be helpful if the national-income accounting identity, that relates savings to investment, is reproduced.

$$I = PS + GS - NX$$

Where I is investment, PS is private saving GS is net government saving[34], and NX is net exports. Following this identity, investment increases only when either or both private and government savings increase[35]. The, by implication, close relationship between the two

variables, identified by a number of economists (see Summers 1988), has provided the platform on which the mainstream tradition has expounded its theoretical approach[36].

Arguably, the essence of this national-income accounting identity is purely informative, in that all it tells us is that investment must equal private and public saving *ex post*[37]. Therefore, the causal dimension between the two variables given by the mainstream economists may very well be regarded as unfounded[38]. Gordon (1995) argues that 'if investment must equal savings *ex post*, it could obviously be the case *ex ante* that investment changes first, and that saving comes subsequently into balance with investment, rather than the other way around' (p.58). The causality in effect – as maintained by both Keynes and Kalecki[39] - may run from investment to saving rather than vice versa (Harcourt & Spajic 1998). In the same line of argument, Skott (1989), following the Keynesian[40] tradition, regards "investment as a key variable [41]. Firms decide the level of investment, and income and saving then adapt to bring about the *ex-post* identity between saving and investment"(p.115).

Assuming that gross saving is composed of undistributed corporate profits, capital consumption allowances, personal saving and government surplus, whereas gross investment is the sum of gross private domestic investment and net foreign investment, how can we be sure that by increasing one component of saving the rest will remain unchanged? For instance, an increase in taxes intended to boost government's saving will cause reductions in both undistributed profits, and disposable income, i.e. reducing personal saving.

The discernible ambiguity between the macroeconomic relationship of those two variables has provided the impetus for conducting some further investigation.

Table 2. Net Investment and Net National Saving rates for EU-15 and OECD economies.

Time Periods	*Net Investment as % of GDP EU*	*N. N. Saving as % of GDP EU*	*Net Investment as % of GDP OECD*	*N. N. Saving as % of GDP OECD*
1961-1966	8.3	7.2	10.2	9.3
1967-1972	8.9	9.8	9.8	10.6
1973-1978	7.2	6.9	10.4	9.6
1979-1984	4.6	4.1	5.4	4.9
1985-1991	10.8	9.0	6.1	5.8
1992-1998	7.0	6.0	17.6	17.2

Source: OECD.

Fig. 1.

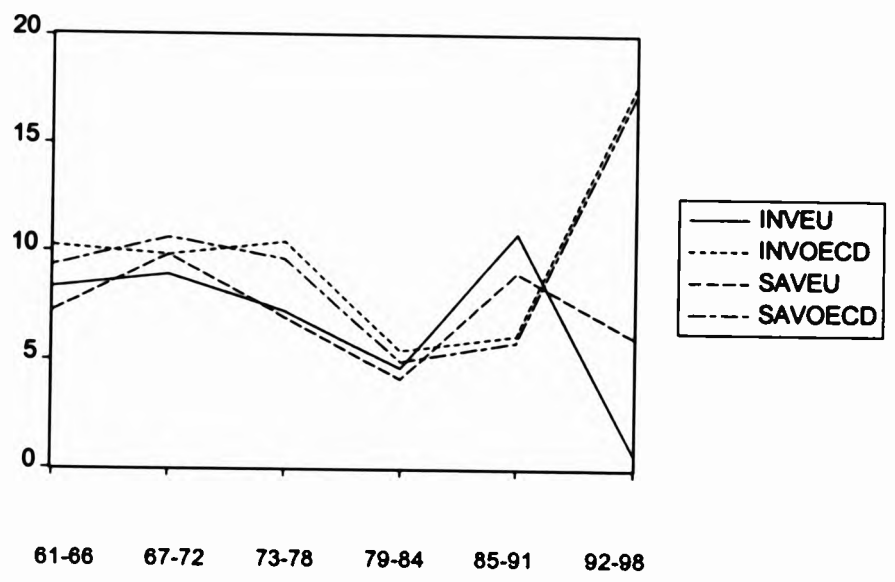


Table 2, and Fig.1, illustrate the pattern as well as the trend followed by the average of both net investment and net national saving rates, for all European and OECD economies over the period 1961 to 1998. Following the post-war boom, net investment and net saving rates were at rather high levels during the periods 1961 to1966 and 1967 to1972. In the following two periods, the European economies experienced a steady but substantial decline in net investment and net saving rates, whereas in the OECD economies the lowest

points were reached during the period 1985-1991. The short-lived sanguine picture observed in Europe during the following period (1985-1991), gave way to a more disappointing spell of lower investment and saving rates over the last time-span. As regards the OECD economies however, the picture painted over the last period has changed dramatically, in that both net investment and net saving have recovered quite considerably.

5.4.2. Net Investment Vs. Net Personal Saving.

Building on the preceding discussion regarding the relationship between net investment and net saving, an exposition of some additional aspects of the existing relationship will be sought. The proponents of the mainstream[42] approach would argue that it is the decisions made by private households about personal saving that that the public authorities (the government) have to respond to. In other words, personal saving[43] is regarded as a major factor responsible for conditioning the relationship between investment and saving. In the analysis to follow, our main concern will be to investigate the relationship between investment and personal savings, since the latter has provided the platform on which the bulk of the current debate has been based. Our investigation has been confined to what some may call the core EU countries: France, the UK, Belgium Germany and the Netherlands. Throughout, the quantitative analysis annual time series data[44] ranging from 1972-1998, has been used.

Table 3, below, shows how net investment, personal saving and private saving (all normalised on potential output) behaved over the period 1972 to 1998. As can be discerned, net investment in the UK, France and the Netherlands peaked during the period 1985-91, whereas in both Germany and Belgium it peaked during the last period. Personal

savings, in the UK, France, Belgium and the Netherlands reached a peak in the last period whereas in Germany a downward trend is observed throughout all periods. As regards private savings, the pattern exhibited seems to be shared by all five countries, since in all cases it peaks over the last period.

Table 3. Net investment and personal savings for France, UK, and Belgium (averages).

Country	Periods	Net investment (% of potential output)	Net personal saving[45] (% of potential output)	Net private saving[46] (% of potential output)
France	*1972 - 1978*	19.2	7.3	18.0
	1979 - 1984	15.4	7.2	16.8
	1985 - 1991	16.2	2.6	15.5
	1992 - 1998	11.7	4.9	17.7
UK	*1972 - 1978*	12.1	2.6	14.0
	1979 - 1984	11.9	2.5	17.1
	1985 - 1991	13.3	1.6	12.6
	1992 - 1998	10.2	3.4	15.1
Belgium	*1972 - 1978*	18.6	8.1	19.4
	1979 - 1984	15.2	9.1	17.4
	1985 - 1991	13.0	7.2	19.7
	1992 - 1998	13.5	7.7	20.5
Germany	*1972 - 1978*	19.4	6.5	n/a
	1979 - 1984	14.0	6.3	21.2
	1985 - 1991	13.2	6.1	22.1
	1992 - 1998	14.7	5.3	22.7
Netherlands	*1972 - 1978*	23.3	7.1	n/a
	1979 - 1984	15.8	7.3	n/a
	1985 - 1991	16.6	2.6	26.2
	1992 - 1998	14.3	4.9	26.8

Source: European Economy.

On the basis of the preceding evidence concerning the behaviour of the variables in question, it is interesting to note, that France, the UK, as well as the Netherlands, are characterised by a pattern, according to which, net investment peaks earlier than both personal as well as private saving.

5.4.3 *Where does the causality run from? Some evidence.*

When we tested for cross-border interest rate spillovers at an earlier stage in this chapter, the Granger causality test approach was adopted. The pairwise Granger causality test (see Appendix I) is a legitimate way of testing formal hypothesis regarding the relationship between two variables as well as provide inferences about their temporal priority[47] i.e. which one leads which over time.

Table 4. Pairwise Granger causality test on the temporal relationship between net investment and personal saving as well as between net investment and private saving.

Country	Null hypothesis: *Personal saving* /[private saving] *does not Granger cause net investment*	Null hypothesis: *Net investment does not Granger cause personal saving* /[private saving]
France	*1.85 (0.18)*$_2$ / [N]	*3.00 (0.05)*$_2$ / [4.51(0.03)]
	0.18 (0.67)$_3$ / [N]	*3.11 (0.06)*$_3$ / [4.30(0.04)]
UK	*1.93 (0.17)*$_2$ / [N]	*3.76 (0.04)*$_2$ / [3.82 (0.02)]
	0.92 (0.44)$_3$ / [N]	*3.80 (0.02)*$_3$ / [3.53 (0.04)]
Belgium	*0.34 (0.56)*$_2$ / [N]	*7.44 (0.01)*$_2$ / [6.30(0.01)]
	0.42 (0.65)$_3$ / [N]	*4.24 (0.02)*$_3$ / [5.23(0.03)]
Germany	*2.64 (0.10)*$_2$ / [N]	*9.80 (0.00)*$_2$ / [8.30(0.00)]
	1.20 (0.34)$_3$ / [N]	*5.45 (0.01)*$_3$ / [7.56(0.00)]
Netherlands	*2.31(0.15)*$_2$ / [N]	*3.56 (0.04)*$_2$ / [3.43(0.04)]
	1.63 (0.23)$_3$ / [N]	*2.87 (0.06)*$_3$ / [2.94(0.06)]

Note: The test was conducted at the 5% level of significance. Probabilities are given in parentheses. Subscripts denote number of years[48] included in test, whereas [N] denotes insignificant test.

The striking feature of the Granger causality tests presented in table 4, is the overwhelming rejection of the null hypothesis - that net investment does not Granger cause personal saving -, at the 5% level of significance, in all five countries[49] involved in our testing. Technically speaking, information in ascertaining the time-series pattern of personal saving will be lost, unless we take stock of personal saving's covariation with past values of net investment. Conversely, the fact that the null hypothesis that personal saving does not Granger cause net investment is accepted in all five cases, suggests that even if we exclude personal saving from the regression no statistical information will be lost.

As regards the Granger causality tests on the relationship between net investment and private saving, on the basis of the results obtained the hypothesis that net investment does not Granger cause private saving is strongly rejected at the 5% level of significance in all five countries.

Following the preceding empirical analysis it can be argued that the emerging evidence points towards a macroeconomic relationship according to which investment leads personal saving and therefore the determination of investment precedes the one of personal saving.

5.4.4 A Vector Autoregression (VAR) approach.

As it has become clear from the preceding analysis, descriptive statistics as well as single equations provided the major tools with which we tried to investigate the investment-saving relationship. Arguably, the determination of both investment and saving involves a string of other factors, that can have a profound impact on both variables, such as the real interest rate[50], or the profitability[51]. It is necessary, therefore, to take the investigation one

step further so that a more lucid picture emerges. To this effect, we develop a VAR[52] model that consists of four endogenous variables: net investment, net personal saving, a measure of profitability[53], and interest rates. In our context, we use annual data[54] for France, the UK, Belgium, Germany and the Netherlands from 1972 to 1998.

Our primary focus while dealing with the VAR approach will be on discussing the decomposition of the variance of the variables in the system, at various horizons. By subjecting all endogenous variables in the VAR model to standard deviation shocks we can obtain information about the relative significance of each random innovation to the variable in the VAR. In other words, for each period the resulting simulated error, in each endogenous variable, is decomposed into the error due to its own innovations, and the error[55] due to innovations in the endogenous variables. The significance of this task rests in the magnitude of the percentage of the variance of each endogenous variable. High percentage of variance over a long period implies that the variable is largely exogenous to the system. In contrast, a high percentage of variance that declines fairly quickly with time, implies that the variable is significantly conditioned by the variables in the system[56].

Table 5. Variance decomposition of responses to innovations in a four-variable VAR system. %

UK	***% Variance Decomposition Sav.***			***% Variance decomposition Inv.***		
Periods	Sav.	Inv.	Others	Sav.	Inv.	Others
1	100.0	0.0	0.0	0.5	99.5	0.0
2	34.9	50.2	14.9	20.9	78.2	0.9
3	24.9	47.4	27.7	23.8	63.5	12.7
4	21.9	51.6	26.5	19.9	53.0	27.1
5	18.4	50.1	31.5	19.3	48.8	31.9
France	***% Variance Decomposition Sav.***			***% Variance decomposition Inv.***		
Periods	Sav.	Inv.	Others	Sav.	Inv.	Others
1	100.0	0.0	0.0	7.3	92.6	0.1
2	94.7	5.0	0.3	12.5	85.7	1.8
3	93.1	6.0	0.9	12.7	84.7	2.6
4	82.9	7.1	10.0	10.7	86.3	3.0
5	78.8	12.1	9.1	15.7	80.6	3.7
Belgium	***% Variance Decomposition Sav.***			***% Variance decomposition Inv.***		
Periods	Sav.	Inv.	Others	Sav.	Inv.	Others
1	100.0	0.0	0.0	4.3	95.7	0.0
2	98.4	0.1	1.5	4.4	83.0	12.6
3	94.1	3.7	2.2	3.6	81.8	14.6
4	84.2	9.7	6.1	3.5	77.8	18.7
5	76.0	16.8	7.2	3.7	65.4	30.9
Germany	***% Variance Decomposition Sav.***			***% Variance decomposition Inv.***		
Periods	Sav.	Inv.	Others	Sav.	Inv.	Others
1	100.0	0.0	0.0	5.4	94.6	0.0
2	89.5	8.6	1.9	3.5	94.5	2.0
3	85.5	12.0	2.5	6.8	88.8	4.4
4	81.4	14.0	4.6	11.5	82.4	6.1
5	78.8	14.0	7.2	15.5	76.7	7.8
Netherla.	***% Variance Decomposition Sav.***			***% Variance decomposition Inv.***		
Periods	Sav.	Inv.	Others	Sav.	Inv.	Others
1	100.0	0.0	0.0	3.3	96.7	0.0
2	83.8	8.1	8.1	6.4	71.0	22.6
3	74.1	8.8	17.1	3.6	40.0	56.4
4	73.3	7.0	19.7	4.2	26.0	69.8
5	75.4	6.0	18.6	7.9	20.0	72.1

Notes: Due to the limited space we have added up the rest of the variables which, in this case, is reflected by '*others*'.

Table 5 provides a summary of the variance decomposition of both saving and investment, conditioned by the rest of the endogenous variables, for periods from one to five lags. An inspection of the columns corresponding to the UK, reveals the following: The portion of saving's variance due to its own innovations after reaching 100 percent in the first period, has declined considerably over the next periods, down to only 18.4 percent after five periods, whereas the portion of variance, due to investment has remained relatively high over all five periods, before it gives way to the rest of the variables in the system. Conversely, the portion of investment's variance due to its own innovations displays a smoother pattern, remaining relatively high throughout all periods. Further more, the portion of its variance due to saving, rises to 23.8 per cent before it declines again. The above evidence suggests that the relative contribution of investment's innovation to saving's variance is much greater than the relative contribution of the saving's innovation to investment' variance through out the entire period.

In France, unlike the UK, the portion of saving's variance due to its own innovation has remained relatively high over all five periods, whereas the portion due to investment, after a sluggish start, has only risen to 12.1 per cent. The story concerning the portion of investment's variance due to its own as well as saving's innovations appears to be unfolding in a rather similar fashion. The only difference is that, this time, the portion of investment's variance due to saving exhibits a more stable pattern before it reaches 15.7 per cent. The emerging evidence indicates that the relative contribution of saving's innovation to investment's variance dominates, not by much, the relative contribution of investment's innovation to saving's variance.

In Belgium, the picture appears to be rather ambiguous. Over the first two periods, the contribution of saving's innovation to investment's variance is distinctly greater than the contribution of investment's innovation to saving' variance. In the remaining three periods however, the story changes with investment dominating saving.

As regards Germany, the evidence obtained points to a more balanced picture since both the contribution of saving's innovation to investment's variance, as well as the contribution of investment's innovation to saving's variance, are of the same magnitude.

Finally, in the Netherlands' case, the portion of savings due to its own innovation has remained quite high during all periods, whereas the portion of savings due to innovation in investment has not exceeded the 6 per cent mark. Furthermore, the portion of investment due to innovation in savings has remained rather low, whereas the portion of investment due to its own innovation, despite the high percentages in the first two periods, has declined substantially over the last three periods. Such a development can be put down to the influence (72 per cent in the last period) of the remaining variables -- the profit share, and interest rate -- on the portion of investment.

On the basis of the evidence generated serious doubts are cast on the existing relationship between investment and saving. In particular, it could be argued that the macroeconomic relationship between personal saving and investment has to be carefully re-investigated.

5.5 Concluding remarks.

On the basis of the evidence obtained, the implementation of a stringent set of rules, and procedures, such as the ones implied by both the Maastricht convergence criteria, as well as the Stability Pact, to presumably fend off debt-bailouts, and cross-border interest rate spillovers within the EU region, have to be carefully reconsidered. Subjecting all EU member states to austere economic policies without taking into consideration the economic situation these countries are in, not only may prove pernicious to these economies but to the ones in the vicinity as well.

As regards the likelihood of cross-border interest rate spillovers, the generated evidence, concerning six EU member states, points towards a causality that runs from the large economies to the small ones, rather than the other way round. Therefore the fears for interest rate spillovers within the EU region can hardly be justified.

Amidst a number of findings, the ones regarding the relationship between investment and saving were of great importance. The impetus for investigating this relationship was given by the prevailing policy consensus, in the so-called developed countries, that large budget deficits absorb national saving, and therefore impede investment, in which case, consumption has to be curbed and budget deficits have to be eliminated. Our effort sought to establish the way the causality between net personal saving and net investment runs.

The empirical investigation that was carried out for six countries cast considerable doubt upon the notion that increases in saving will boost investment. The Granger causality test pointed to a relationship, on the basis of which, investment leads saving. In pursuing a deeper understanding of the existing relationship a four-variable VAR model was set up for each country individually. By decomposing the variance of each variable, the

results backed the view of those who regard investment as being the variable of the utmost importance.

Appendix

According to the Granger (1969) approach, the question of whether x causes y, is to see how much of the current y can be explained by past values of y and then to see whether adding lagged values of x can improve the explanation. Y is said to be Granger-caused by x if it helps in the prediction of y, or equivalently if the coefficients on the lagged x's are statistically significant. It is important to note that the statement "x Granger causes y" does not imply that y is the effect or the result of x. Granger causality measures precedence and information content but does not by itself indicate causality in the more common use of the term.

The test is carried out by running bivariate regressions of the form

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \cdots\cdots + \alpha_l y_{t-l} + \beta_1 x_{t-1} + \cdots\cdots + \beta_l x_{t-l}$$

$$x_t = \alpha_0 + \alpha_1 x_{t-1} + \cdots\cdots + \alpha_l x_{t-l} + \beta_1 y_{t-1} + \cdots\cdots + \beta_l y_{t-l}$$

for all possible pairs of (x,y) series in the group. The reported F-statistics are the Wald statistics for the joint hypothesis

$$\beta_1 = \cdots\cdots = \beta_l = 0$$

for each equation. The null hypothesis is therefore that x does not Granger-cause y in the first regression and that y does not Granger-cause x in the second regression.

Notes:

[1] Lamfalussy (1997) contends that the Maastricht treaty will enable countries to "exercise concerted discipline in the conduct of their fiscal management……to minimize the risk of an adverse policy mix and an excessive burden on monetary policy".

[2] As Eisner (1995) points out such as a deflationary bias should be put down to the growing perception that policies purporting to reduce unemployment through increased deficit spending or increased money supply will cause inflation to accelerate. Within the NAIRU framework trying to reduce unemployment by policies designed to boost aggregate demand may work for a while but then higher inflation will cancel out the effects of the stimulus.

[3] In some recent studies purporting to compare and contrast the emerging edifice of EMU to the already established one in the USA, a number of major differences have been identified which allegedly may pose some serious threat to the viability of the European Monetary Union. For a more comprehensive analysis on this see: Eichengreen (1990), Goldstein and Woglom (1992)

[4] The nature of the convergence rules enacted in Maastricht provides the institutional framework of EMU.

[5] The fact that the Maastricht Treaty offers less guarantees for solid budgetary policies prompted, Theo Waigel, the German Finance Minister to put forward the idea of a Stability and Growth Pact in 1995. However, it was not until June 1997 that this new element was finalized. Prior to its final settlement, the French government called for a better balance between budgetary discipline and employment policy. The resulting Resolution simply stated that employment policy should be coordinated at the EU level.

[6] Arestis & Sawyer (1998b) argue that the Stability and Growth Pact is based on the prevailing new-monetarist doctrines, i.e. since inflation is a monetary phenomenon. monetary policy is the only way it can be controlled; the level of unemployment fluctuated around a supply-determined equilibrium unemployment (NAIRU); fiscal policy is impotent in its impact on real variables, therefore it should serve as an auxiliary tool to monetary policy in achieving price stability.

[7] The existing literature on the credibility of monetary policy proposes the delegation of policy to an independent central bank, which is either more conservative than the population (Rogoff 1985a), or subject to an inflation performance contract (Walsh 1995) as a solution to time-inconsistency problems of monetary policy in isolation. It does not however say much on the effects of fiscal policy on the behaviour of central bank and the inflation process (Artis and Winkler 1997).

[8] It should be stressed that the fines for the first three years will take the form of a returnable deposit (non interest bearing). It will not be until this time period has elapsed that the fine will be collected. Sawyer (1999) argues that the imposition of penalties is likely to add to the deficit problem.

[9] The recent Mexican crisis (1994-5) shook the foundations of financial markets throughout Latin America, with repercussions even in countries as far away as Italy, Spain Sweden. (for a more comprehensive analysis on the Mexican crisis see Sachs *et al., (1995))*. Eichengreen and Wyplosz (1998, p.79) believe that 'the most compelling rationale for the Stability Pact rests on the need to buttress the no-bailout rule of the Maastricht Treaty'.

[10] Referring to a policy mix of loose fiscal policy and tight monetary policy.

[11] Sawyer (1999) maintains that the real "route through which interest rates influence inflation are rarely spelt out" (p.4).

[12] Growing nominal debt can subvert the central bank's anti-inflationary stance, in that it might be tempted to inflate away the stock of debt (De Grauwe 1996).

[13] The prospect of passing the cost over to the entire EMU region will undermine EMU's objectives, by allowing EU member states to run riskier economic policies.

[14] Such a contention is predominantly shared by those who have been very critical of the efficiency of fiscal policy intervention, as well as of the role of the state.

[15] According to the post-Keynesian analysis limits imposed on national budget deficits will undermine the positive role that deficits play in stabilizing demand over the business cycle (Sawyer 1999).

[16] Three of the most prominent principles of the new macroeconomic orthodoxy are: the government's orientation towards balanced budgets, the notion that government intervention in product, financial, and product markets is economically inefficient, and finally, government interference in financial movements has to be curtailed (Epstein and Gintis, 1995).

[17] The 'cowding out' concept has been ingrained in the heads of many academic and City economists for many years now. The argument that fiscal policy is ineffective in influencing demand because its effects will be crowded out by the impact of higher interest rates and possibly by higher exchange rate. Such a belief however is based on the implicit assumption that monetary policy will be left unchanged as fiscal policy is eased. Simulations carried out by the Warwick University Macroeconomic Modelling Bureau (Wallis 1984) as well as the London Business School and National Institute models suggest that if a monetary policy is allowed to accommodate the shift in fiscal policy (by fixing interest rates and allowing the money supply to grow more rapidly), then a large increase in demand and output will occur. It is worth noting that even with a non-accomodating monetary policy, aggregate demand still responds to a fiscal injection in most simulations, but by a smaller amount.

[18] Thygesen (1996) sustains that actual deficits are 'an expression of the burden on financial markets'.

[19] Arestis & Sawyer (1999) propose the introduction of a new "Stability and Growth Pact, the focus of which will be a common fiscal policy, along with the ECB monetary policy"(p.11).

[20] "The Germano-Dutch wing of the ECB mistrusts the Euro XI as an attempt to undermine the operational independence of the central bank" (Buiter 1999, p.205)

[21] The British experience has proved that balancing monetary and fiscal policies, when there is a single fiscal and monetary authority can be a dreadful task.

[22] It should be stressed however, that fluctuations in interest rates can have cross-border effects on the level of output and employment (this is conditional on a scenario in which wages are rigid). According to Oudiz and Sachs (1984) such effects are unlikely to be significant since deficit spending at home stimulates imports and hence output and employment abroad; it also causes interest rates to go up which in turn impedes output and employment abroad. In other words the two effects offset one another.

[23] von Hagen and Eichengreen (1996) maintain that fiscal spillovers depend on the degree of trade or financial integration rather on monetary union.

[24] On the political front additional scepticism regarding the economic viability of the Stability Pact can be detected in the announcement, prior to the Amsterdam summit, made by Dominique Strauss-Kahn, Jospin's finance minister, in which he stated that he would not sign a Stability pact devoid of measures to stimulate employment.

[25] The major concern is that during a recession member states will be expected to undertake measures in order to avoid exceeding the 3% deficit threshold. With such a prospect looming, Eichengreen (1997) recommends a new deficit target, formulated in terms of structural deficits or 'constant employment budget balance' rather that actual deficits.

[26] For more on the effects of the restrictions imposed by the Stability pact on automatic stabilizers as well as on output volatility see Bayoumi & Eichengreen (1995); von Hagen & Eichengreen (1996).

[27] In their study they only provided evidence for one EU member state, Germany. Following their own model we will try and extent it to include a larger number of EU countries.

[28] In general it is better to use more rather than fewer lags, since the theory is couched in terms of the relevance of all past information.

[29] Europe is a weighted average of Germany, France, Belgium, Denmark, UK, and Greece, whereas the rest of the world is a weighted average of the USA, Canada, and Japan. OECD was our main source for our collection of data.

[30] The results obtained here are at odds with the conventional wisdom that wants German interest rates to play a significant role in the determination of European interest rates (see Keller 1999).

[31] "……neoclassical growth models have, again with little irony, cast a dark cloud on the effectiveness of saving as a positive force on the rate of economic growth" (Hamberg, 1971: pp.141-2).

[32] Eisner (1995) maintains that such an antiquated reasoning is totally absurd.

[33] In a rather characteristic manner, President Clinton attributed the low growth rate in domestic investment to the crippling large budget deficits.

[34] This is equal to government revenue minus government spending (government surplus).

[35] Such a contention is predicated on the condition that net exports does not affect the determination of the investment-savings equilibrium.

[36] The view that by changing one component of saving, we can achieve major changes in the components on investment, might be the case, provided that we assume all other things constant (Eisner 1995).

[37] Asimakopoulos (1983) posits that neither Keynes nor Kalecki envisaged the time required that takes for the multiplier effects of a higher level of investment to be worked out. He goes on to argue that "Keynes even appeared at times to confuse the definitional equality between saving and investment with the equilibrium relation between them"(p.222).

[38] 'Keynes' intellectual revolution was to shift economists from thinking normally in terms of a model of reality in which a dog called savings wagged his tail labeled investment to

thinking in terms of a model in which a dog called investment wags his tail called saving'. Meade (1975; p.62)

[39] They both looked upon investment as the causal determinant of saving in the short-term, since it affects the level of output (Keynesian view) as well as the distribution of income (Kalecki's view).

[40] Keynes (1964) regarded saving as a passive 'determinant' of the system (p.183).

[41] Both Keynes and Kalecki regarded investment as the key determinant of the level of economic activity. According to Kalecki (1971: p.13) "...capitalists, as a whole, determine their own profits by the extent of their investment and personal consumption. In a way they are 'masters of their fate'; but how they 'master' it is determined by objective factors, so that fluctuations of profits appear after all to be unavoidable". In the same spirit, Keynes' (1973: p.121) argued that the "level of output and employment as a whole depends on the amount of investment. I put it this way, not because this is the only factor on which aggregate output depends, but because it is usual in a complex system to regard as the *causa causans* that factor which is most prone to sudden and wide fluctuation. More comprehensively, aggregate output depends on the propensity to hoard, on the policy of the monetary authority as it affects the quantity of money, on the state of confidence concerning the prospective yield of capital assets, on the propensity to spend and on the social factors which influence the level of money wage. But of these several factors it is those which determine the rate of investment which are most unreliable, since it is they which are influenced by our views of the future about which we know so little." Asimakipoulos (1983) points out that for both Keynes and Kalecki banks liquidity determines the rate of investment. "For both it was the subsequent changes in income (as well as the distribution of income for Kalecki) that brought desired saving into equality with the increase in investment."(p.233).

[42] According to the neoclassical approach the main determinants of investment decisions are: the aggregate income, and the interest rate. On the other hand, personal saving decisions, according to the life cycle - permanent income hypothesis of consumption, are believed to depend on fluctuations in income, the interest rate and wealth.

[43] It should be stressed that within the neoclassical tradition total private saving is also being given some consideration. Arguably, households optimize total private saving.

[44] We normalized our data by dividing by potential output in order to control for increases in the scale of the economy.

[45] By net personal savings we refer to net savings of households.

[46] Private savings is the sum of personal and private sector savings.

[47] This becomes feasible, by regressing X on its own values as well as lags of Y and then reversing the test with Y this time your dependent variable.

[48] It should be emphasised that our intention is to focus on long-term effects between investment and saving. Hence, the lags employed in our analysis.

[49] It should be noted, however, that in the Netherlands the Granger causality test involving two lags is found to be insignificant either way.

[50] The proponents of the neoclassical approach would argue that the real interest rate should be included in an equation involving the two variables in question.

[51] According to those sharing the Keynesian, Kaleckian, as well as Marxian perspecitve, profitability can have a profound impact on both investing and saving decisions. It should be pointed out that the proponents of the neoclassical theory regard the before-tax profit rate or profit share as a variable of no analytical significance, and therefore ignore its impact on net national saving (Desai, 1987).

[52] For more on VAR models see Sims (1980), Campbell (1991).

[53] The profit share, which has been used as a measure of profitability, attempts to capture the effects of distribution as well as the cost of capital services on investment. (Gordon 1995). In addition, the three-month treasury bill rate was used as a proxy for interest rates since according to the neoclassical theory serves as means of equilibrating saving and investment.

[54] OECD, as well as European Economy were the main providers of our data.

[55] The sum of the variances of all endogenous variables must add up to 100.

[56] We should emphasize that the order according to which all variables have been included in the VAR system is of great importance. For the first variable the only one period ahead variation is its own innovation; hence the high percentage (100%). In our experiment saving has been chosen as the first variable.

Chapter 6

Conclusions

In the EU region the dogmatic implementation of economic policies of purely monetarist nature has established a contractionary regime in which restrictive, supposedly disinflationary, money and credit policies and a drastic, almost panic-stricken, tightening of fiscal policies have combined to obstruct development and to suppress employment. Arguably, the new era ushered in by the ratification of the Maastricht Treaty as well as its successor the Stability Pact have thrown the EU economies into a deflationary bias possibly with disastrous repercussions for the employed population of the EU member states. The prevalence of the neoliberal consensus appears to be dictating the nature of economic policy as well as the pace at which this has to be implemented. The Keynesian view that active government intervention in the economy is conducive to securing a simultaneous internal and external balance in the economy has been superseded by the neoliberal dogmatic approach of an automatic tendency towards market clearing.

Throughout the preceding chapters it was vigorously argued that government intervention might be instrumental in maintaining high levels of aggregate demand so that the full employment of all resources is achieved. Aggregate demand has a positive effect on capacity utilisation and employment in both the short and long run. A positive feedback mechanism, following policies to stimulate investment, facilitates full employment as well

as generates additional capacity for future expansion of production. Insufficient future capacity hampers the whole process to full employment since the economy will be too small to employ all resources and therefore reach its pinnacle.

The primary objective of this thesis was to investigate the existing problem of European unemployment within the new neoliberal environment that emerged particularly after the demise of the economic regime established at Bretton Woods and most crucially after the ratification of the Maastricht Treaty as well as to develop an alternative - demand-management based – framework through which the current, arguably, dismal economic situation, could be addressed. It further, in view of the introduction of the Stability pact, sought to gain an insight into the main arguments put forward in defence of the pact, namely the fear for interest rate spillovers across EU economies and the widely held neoliberal notion that deficit spending absorbs national saving which through its negative effect on interest rates, it crowds out investment.

More specifically, an elaboration on the policy ramifications flowing from the prevalence of the neoliberal consensus within the Euroland was attempted. Currently, in the EU region sound economic policies have given way to satisfying criteria and meeting deadlines; industrial competitiveness has been sacrificed to ineffective exchange rate policies, while a race against time intensifies as time goes by. Furthermore, the unprecedented high cost of capital has acted as a deterrent to long term industrial investment, whilst increased volatility, and speculative behaviour in the financial markets has transformed the entire economy into a 'casino', where the commercial interest revolves around short term gains. In addition, the ability of financial markets to restrict the availability of finance is perceived as being of invaluable importance, since investment is

contingent on them. Changes in the level of income lead to changes in the transactions demand for money, which in turn influences the rate of interest.

Further, it was argued that economic policy in Europe might have been heavily constrained by the stringent rules that the Maastrich treaty, and its successor, the Stability Pact, put in place to facilitate the transition to EMU. National budgets are limited by deficit and debt restrictions; on the other hand no mechanism has been envisaged to deal with the resulting contractionary effects within the EU region. The emergence of the ECB as an institution endowed with powers to set monetary policy with a view to controlling inflation, has spawned the belief that that expansionary policies are antiquated, and therefore, unsuitable means of conducting economic policy. In this context, the hardship that deflationary policies imply, are thought to be only transitory. Contentions of this sort however fail to account for the long-term rigor inflicted upon the unemployed population through the hysteresis mechanism. By scrutinising a number of economic indicators, the extent to which the EU economies have suffered in view of the unfounded economic venture established in Maastricht, was illustrated. The emergence of preliminary econometric results buttresses the hypothesis that the deflationary bias of the convergence rules might have dampened economic performance and most crucially job-creation within the European Union.

Additionally, after exposing the conflicting evidence generated by past econometric attempts made to explain variations in the unemployment rate, an analytical framework was developed. In a post Keynesian spirit, a model, comprising a number of equations, illustrated how the inherent attributes of economic policy, as reflected by fiscal, monetary as well as income policies, could contribute immensely to the expansion of the economy

per se. For the estimation of this model, panel data analysis was adopted for 13 EU member states. The econometric evidence generated suggests that the adoption of income policies, designed to boost the wage share of labour and in effect, the components of effective demand, as well as expansionary-type policies might prove instrumental in ameliorating the employment situation in the EU region. Further to this point, it was sustained that the contactionary economic stance, adopted by all EU member states, is likely to have added to the persisting problem of unemployment, by depriving EU citizens of one of their democratic rights, crucial to their survival, the right to 'work'.

In view of the little attention that the relationship between capital stock and unemployment has been given by contemporary economic nexuses, it was deemed necessary that an investigation into the underlying relationship is to take place. In particular, it was suggested that within the existing neoliberal literature the positive effects of capital formation on unemployment has been played down, often suggesting that either, due to unfounded assumptions, any changes in investment leave unemployment intact or that employment has to be encouraged on the existing capital stock. Essentially, within this tradition, measures that promote the expansion of productive capacity are conspicuous by their absence. Moreover, by expanding on the notion that Keynesian-type policies, purporting to expand productive investment, could alleviate unemployment, an econometric analysis went under way. The evidence obtained suggested that the relationship between capital stock and unemployment offer possible channels through which European unemployment could be explained as well as indicated that the neoliberal era heralded by both the demise of the Bretton Woods as well as the ratification of the Maastricht treaty

might have contributed immensely to the inexorable upward trend that European unemployment has followed over the past two decades.

Finally, an investigation into the rationale behind the fundamentals of the neoliberal dogma as reflected by both the Maastricht Treaty and the consequent introduction of the Stability Pact was conducted. Yielding evidence suggested that some of the key arguments put forward in defence of the pact might have to be seriously reconsidered. More specifically, when testing for cross-border interest rate spillovers within the EU region, the uniformity of the results, indicate that there is hardly any scope for such a concern. On the basis of the evidence obtained, the causality runs from the large economies to the small ones, rather than the other way round. Moreover, when the widely held notion that public deficits absorb national savings, which in turn dampen investment, was put to the test, the resulting findings suggest that such a contention may be flawed. It is of great interest to note that when econometric techniques were applied to gain some further insight into the relationship between investment and saving, the evidence generated not only did it point towards a causality that runs from investment to saving, but cast serious doubts on the believed relationship as well.

In essence, the contribution of this thesis is of great significance as it advances our understanding of the channels through which macroeconomic policy, and more specifically income as well as demand management policies, could be instrumental in influencing European unemployment. In addition, it provides a constructive criticism on the current neoliberal environment in which economic policy is pursued within the EU region. The crucial point made in this thesis is that European unemployment may continue to affect the lives of the EU population, unless a strategy to increase aggregate demand is crafted.

Expanding demand, combined with proper targeting of policies, may reverse the deteriorating job situation in Europe, as well as improve the living standards for the poor. For such a potential to be realised however, it is necessary that private investment is galvanised. It is only then that income and tax revenue will grow enough to eliminate the budget deficit produced by the initial rise in government spending. Keeping inflation within bounds may be conducive to economic stability, but imposing the same contractionary policies on EU economies characterised by different economic structures may well prove much more damaging.

Inherently, capitalistic economies are characterised by inequalities in the distribution of market power, income and wealth. Therefore, any attempts to deregulate the markets might further exacerbate these inequalities leading to a more unstable economic environment. It is therefore important that the government is given another dimension, being an apparatus of controlling the implementation of economic policies. One of its roles would be to initiate appropriate policies to deal with demand side (insufficient demand, instability of investment) as well as supply side issues (planning of prices and incomes, training).

Additional factors that have to be considered are the re-introduction of credit controls and the co-ordination of wage bargaining. It is essential that economies insulate themselves from international financial markets through exchange rate controls or 'Tobin taxes'. Moreover, Kalecki's view that income should be redistributed from the wealthy members of the society to the ones at subsistence level is another factor that can contribute to the eradication of poverty and creation of an equitable system. In this direction, a co-

ordinated harmonised tax system has to be introduced so that income is redistributed fairly across all levels of society.

In short, we feel that challenging the neoliberal strategy in the EU is a task that requires a great deal of patience, determination and optimism. Turning to Keynesian policies may not be an adequate response to the mutated patterns of neoliberal policies and to the interests they represent. It is therefore essential that a comprehensive counter-strategy backed by theoretical work and research in a number of closely interrelated fields is developed in the immediate future. It should be emphasized however, that when researching controversial areas such as the one undertaken in this study, a number of complicated and complex structures have to be taken into consideration. There is a need for further research which may lead to more comprehensive answers and new practical steps.

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