EFFECTIVE DEMAND, INWARD DIRECT INVESTMENT, AND EUROPEAN UNEMPLOYMENT: DEMAND AND SUPPLY-SIDE CONSIDERATIONS

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Over the last decades, unemployment has risen to unprecedented high levels in the European Union (EU). Despite the macro as well as micro-structural policies implemented, unemployment is still an issue toping the agenda of governments within the EU region. In view of the latter, a more coherent approach seeks to throw some light on the underlying issue by focusing on channels hardly previously touched upon. In particular, this paper aims at shedding some light on the potential impact that Keynesian type policies may have on job creation within the EU area, as well as gain an insight into the relationship between foreign direct investment and unemployment. The econometric analysis provides useful empirical results, suggesting that a new policy orientation should be pursued.

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Key words: *European unemployment, Aggregate demand, Foreign direct investment.*

I. INTRODUCTION

Potentially, the economic environment experienced in the European Union is at a turning point of development as it faces a number of challenges amongst which prolonged economic stagnation with rising unemployment and social polarization. Over the last decades reams of academic paper has been used trying to provide useful economic evidence as to how a solution is to be hit upon the ever so pressing problem of unemployment that has crippled the EU economies.

Reforming industrial policy favouring foreign investors was looked upon as a key channel through which job creation could be envisaged. Polices targeting FDI, however, proved to be rather ineffectual as foreign investors, taking advantages of the attractive conditions offered by prospective recipients of FDI, sought ways to make quick and easy profit.

This paper purports to unravel the demand and supply side constraints of the implemented macroeconomic policy as well as econometrically examine some of the underlying relationships of key economic variables. More specifically, in section II an exploration of the main features of the macro-policy regime in EU will be pursued in an attempt to provide a more lucid idea of the macro and micro-structural policies implied and the extent to which the EU economies have been affected by the new economic principles. Section III touches upon the instrumental role that effective demand in conjunction with distributional polices can paly in affecting job creation while section IV elaborates on supply side issues as well as possible shortcomings associated with foreign direct investment. In

section V, panel data analysis provides the main econometric framework on the basis of which we conduct our empirical investigation for 12 EU countries from 1970 to 2000. Finally, section VI concludes by emphasizing the need for a development of an alternative policy framework in the EU.

II.   SETTING THE MACROECONOMIC FRAMEWORK RIGHT

The predominant free market economic environment within which the bulk of the EU countries have been pursuing integration and unity has contributed considerably to the present dismal economic and social situation in the EU. Enticing new countries into a one-sided union, apparently hostile to welfare provisions without any traces of democratic processes, has proved rather a difficult task[1].

Arguably, the most important development within EU's economic policy, in the last three decades has been with respect to the emergence of a new policy orientation as this is reflected by the deflationary type polices adopted by EU member states as means of stimulating economic growth. Despite the fact that demand-side polices were initially regarded as the appropriate remedy to deal with unwanted situations such as the inflationary pressures that ensued the two oil price shocks, the emerging doctrine of monetarism and free-market orientation caused a significant shift in macroeconomic policy. In the 1990's, within the EU region, the emerging consensus has stumped its authority through a set of rules (Maastricht Treaty) and regulations (Stability Pact), tailored to enable the EU countries to integrate their economies.

At national level, fiscal policy has been constrained by the rules and regulations implied by the Stability and Growth Pact of which the rationale according to Arestis and Sawyer (2003) and Alexiou (2004) is sound public finances. "Achieving and sustaining sound positions in public finances is essential to raise output and employment in Europe. Low public debt and deficits help maintain low interest rates, facilitate the task of monetary authorities in keeping inflation under control and create a stable environment which fosters investment and growth... The Maastricht Treaty clearly recognizes the need for enhanced fiscal discipline in EMU to avoid overburdening the single monetary authority and prevent fiscal crises, which would have negative consequences for other countries. Moreover, the loss of exchange rate instrument implies the need to create room for fiscal policy to tackle adverse economic shocks and smooth the business cycle. The stability and growth pact is the concrete manifestation of the shared need for fiscal discipline" (European Commission, 2000), (p.1).

At present, the EU's policy agenda is akin to the one proposed by neo-liberalism and conforms to its priorities: deregulation, privatisation, balanced budgets and disinflation by means of monetary restriction. According to the philosophy of this school of thought the state assumes a secondary role in affecting economic activity and as a result there is no essential role the state or the public sector can play in galvanising economic activity. In this context, the state should step aside, letting the market forces create the economic conditions conducive to economic growth.

The dogmatic implementation of doctrines of purely monetary nature has paralysed macro policy. Restrictive money and credit policies in conjunction with tight fiscal policies have been summoned to banish the spectre of inflation. At the same time effective employment policies to deal with the ones seeking work have been conspicuous by their

absent. Instead, targets for lowering further down the arguably lowest inflation rate experienced by EU countries in the last 30 years are set.

Having assumed the role of being the sole effective federal economic institution, ECB relies on, what it turns out to be the only policy instrument, the "repo" rate to pursue the main objective of low inflation. This is rather pervasive in ECB (2003a) where it is stated that "In the field of monetary-fiscal policy co-ordination, the emphasis has shifted away from the joint design of short-term policy responses to shocks towards the establishment of a non-discretionary, rule-based regime capable of providing monetary and fiscal policy-makers with a time-consistent guide for action and thus a reliable anchor for private expectations .... Therefore there will generally be no need for further co-ordination of day-to-day policy moves" (p.38).

The proponents of this new persuasion, ascribe persistence in unemployment to labour market rigidities, which together with poor education, and motivation are preventing the unemployed from getting work on existing capital stock. In other words, capital stock is a variable which, at least in neo-classical models, is hardly used as a variable purpoting to explain variation in unemployment. Most paradoxically of all however, is that whenever capital stock is treated as a key factor that affects inflation and unemployment, they never argue in favour of such possibility, particularly in their policy suggestions.[2] 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). Obviously such a view is coherent from a free-market standpoint. The key argument however is that it overlooks the possibility that the new restrictive policy regime, which has been established in Europe since the 1970's, may have negatively affected unemployment. At stark contrast, 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; Smith, 1996; Kitson & Michie, 1996; Arestis & Sawyer, 1998). Capacity deficiencies may have operated as a significant constraint in these countries to employ their labour force fully.

Amidst a number of scholars researching this area . Malinvaud, (1985); Bean, (1989), (1994); Rowthorn, (1995), (1999); Grieve-Smith, (1996); Alexiou & Pitelis, (2003), have pointed out that major reductions in unemployment require additional investment in productive capacity that will create jobs[3]. Rowthorn (1995) maintains that this aspect to the unemployment problem has been neglected in the enthusiasm for labour-market issues. The capacity problem is rejected by neo-liberal 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.

III. DEMAND-SIDE CONSIDERATION

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 and Kalecki independently came up with the principle of effective demand. Their discovery was based on the notion that the economy would not necessarily generate full employment of all resources[4]. 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 in these economies[5]. 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. 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 *et al.*, 1991). Hence increasing market flexibility can be achieved through means such as deregulation, reduction of trade-union power, and the pruning 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 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. According to 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 1999, the estimated NAIRU, for example, increased 5.4 per centage points in Finland, 3.0 per centage points in Sweden, and 2.7 per centage points in Germany (OECD 1999, p. 9).) Yet, by the OECD's own assessment (OECD 1999), 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 rather than by the NAIRU 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.

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. 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 and output, not just because there is a cut in wages. In the same line of argument, a reduction in wages 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.

Alexiou and Pitelis (2003) point out that 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.

IV. SUPPLY SIDE CONSIDERATIONS

In the 1990's the emergence of the Washington Consensus[6] 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[7], 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[8] 1995a) attribute such a development to the decline in the rate of investment since the 1960's and the squeeze on the profit share[9] 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[10] (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 per cent 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[11] (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[12].

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, 1999, 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[13]. 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.

V. THE EMPIRICAL MODEL

What follows is a synthesis of a model heavily influenced by the post Keynesian tradition, as it attempts to address the underlying problem of unemployment through demand side as well as distributional type economic policies. Moreover, the inclusion of foreign direct investment as a key variable in explaining unemployment, purports to capture the extent to which capital inflows can affect job creation at least within the EU region. On the basis of

the above exposition the following equation is envisaged to model the relationships between the variables under scrutiny:

$$u_{it} = \beta_0 + \beta_1\, ad_{it} + \beta_2\, l_{it} + \beta_3\, idi_{it} + \beta_4\, u_{it\text{-}1} + \varepsilon_t$$
$$\phantom{u_{it} = \beta_0 +\,} (\text{-}) \qquad (\text{-}) \qquad (\text{-}) \qquad (+)$$

$$\varepsilon_t = NID\ (\varepsilon, \sigma^2)$$

where β's are positive constants,

signs in parenthesis show the expected effects.

Where ad_{it} is aggregate demand, and l_{it} is the labour share of output, idi_{it} is inward direct investment, and $u_{it\text{-}1}$ is lagged unemployment, t is a time subscript and e is a random term, assumed to satisfy the normal requirements.

Estimation Results

Our econometric investigation draws on panel data analysis otherwise known as 'the pooling of observations' of countries, etc. over several time periods (Baltagi 1995). According to Hsiao (1986) and Baltagi (1995) econometric estimation using pooling techniques is more efficient in that it captures adjustment mechanisms in dynamic relationships more accurately[14].

The empirical model includes twelve EU countries (Austria, Belgium, Demark, Germany, Finland, France, Ireland, Italy, Netherlands, Spain, Sweden, and the United Kingdom). Our endeavour to incorporate the three remaining countries, (i.e. Greece, Portugal, and Luxemburg) was hampered by data unavailability. The data-set used for the empirical analysis consists of N cross-sectional units, denoted by $i = 1,….,N$, observed at each of T time periods, denoted $t = 1,….,T$. The model is estimated on annual data from 1970 to 2004, *(so N = 12; T = 34)*[15].

In an endeavour to model the unemployment rate, U_t as a function of the aforementioned explanatory variables, estimated specifications of equations following a general to specific approach, were estimated[16].

Table 2
Definitions of variables

u_t	:	Unemployment rate*
ad_t	:	Aggregate demand*
l_t	:	Compensation of employees paid by resident producers / GDP*
idi_t	:	Inward direct investment / GDP**

Source: (*) OECD (**) World Bank *Note:* variables are taken in logs

A series of unit root tests were conducted to check for stationarity, and therefore ensure that panel data estimation techniques can be used appropriately. Even though the standard Dickey-Fuller, Augmented (DF) and Phillips-Perron tests are some of the tests that can be used to check for stationarity, we opted for a panel unit roots test proposed by Maddala and Wu (1999)[17]:

$$\zeta = -2\sum_{i=1}^{N} \ln \pi_i \sim \chi^2(2N),$$

where p_i is the p-value of the ADF unit root test for the *i*th country. A quick inspection of the results presented in table 1 suggest that we can proceed with panel data estimation[18].

Table 1
Panel Unit Root Tests.

$\zeta (U_{it}) = 42.42$	$\zeta (AD_{it}) = 59.98$
$\zeta (L_{it}) = 53.76$	$\zeta (IDI_{it}) = 67.77$

Note: ζ (!) corresponds to the test proposed by Maddala and Wu (1999). 5% is the significance level.

What follows is the presentation of the equation that was selected on the basis of the Schwarz and Akaike Information Criteria *(S.I.C, A.I.C)[19]* as well on a number of selection tests, [F-test: F(11,57) = 15.47, p-value = 0.00, Hausman-test: (X^2) =16.47, p-value = 0.00]. According to these test the fixed effects model is preferred to both pooled model and random effects model[20]

Fixed Effects model

$$u_{it} = -4.78 ad_{it} - 4.43\ l_{it} - 0.18\ idi_{it} + 0.67 u_{it-1} + \varepsilon_{it}$$
$$\quad\quad (3.73) \quad\quad (3.63) \quad\quad (0.07) \quad\quad (0.02)$$

(standard errors in parentheses).
$R^2 = 0.89$
S.I.C. = -2.56, A.I.C = -2.64.

In view of the results generated it can be discerned all parameters of the equation estimated bear the expected sign and are significant at the 5 per cent level of significance with only exception of the coefficient of the inward direct investment which is significant at the 7 per cent significance level.

A closer look at the coefficients suggests that a 1% increase in aggregate demand, labour share of output and inward direct investment will cause unemployment to decrease by 4.78%, 4.43% and 0.18% respectively. As for the lagged unemployment variable the positive sign does indicate that unemployment adds considerably to future periods of economic activity.

The key finding that stands out however, is the profound impact that demand side as well as distributional policies may have on alleviating the existing problem of unemployment within the EU region as opposed to the somewhat subsiding impact of foreign direct investment on the European countries.

VI. CONCLUDING REMARKS AND POLICY RECOMMENDATIONS

In sketch of the above exposition, sluggish aggregate demand growth and inadequate distributional policies are fundamental and deeply-rooted elements of the current economic regime in the EU. The tenets of neoliberalism are fundamentally flawed in that they cannot create an economic environment conducive to economic prosperity and social security both in the developed and the developing world. Unless new progressive structures and practices for national economies and for global integration are implemented, only then we could probably reap the benefits of a more humane and employment friendly economic policies.

Achieving economic conditions that promote full employment requires an industrial strategy that will create a stable and safe environment so that both local as well as foreign

investors engage in investment that purports to generate the necessary capital for additional productive investment. Global experience so far suggests that foreign direct investment is heavily associated with speculative behaviour.

Enhancing quality through training does play an instrumental role in boosting industrial performance. Nevertheless, endowing prospective employees with skills that can cot be put into practice is somewhat ineffectual.

A more progressive alternative macroeconomic framework ensuring a continuous expansion of demand matched, via more productive investment, by increased employment and output rather than by inflation, is needed should the EU economies get untangled from the ever so pressing problem of unemployment. The emergence of an undoubtedly economic superpower (EU) in this part of the globe should be focusing on creating the appropriate environment within which a more democratic and more credible European Social Model is established. It is only through such a model that full employment, higher levels of social welfare, equity, ecological sustainability and international cooperation could be realized.

Notes

1. A case in point is the recent Swedish referendum on European Monetary Union (EMU).

2. 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).

3. In this perspective, education and training programmes attract concern, however, they are considered to be inadequate to tackle the unemployment problem.

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

5. See further Boltho and Glyn (1995): Singh (1995b).

6. 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.

7. 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.

8. 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.

9. Mainly due to the impact of powerful unions.

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

11. 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).

12. 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).

13. 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.

14. For more on dynamic data estimation techniques see Banerjee (1999), Baltagi and Kao (2000) and Smith (2000).

15. The generalized regression model provides our basic framework:

$$y_{it} = \alpha_i + \beta_i'x_{it} + \varepsilon_{it},$$
$$\varepsilon_{it} \sim \text{i.i.d.} \, (0. \, \sigma_i^2).$$

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

16. A more general model was also used which included outward direct investment, unit labour costs, and government as a share of GDP serving as additional explanatory variables. These were found to be insignificantly different from zero, and therefore became redundant from subsequent investigations.

17. This test is a nonparametric test based on Fisher (1932).

18. Is has to be noted that in order to see whether it is appropriate to engage in pool data analysis, a selection process based on the Schwarz Information criteria *(SIC)* proposed by Smith (2000) was conducted.

19. 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.

20. A more detailed exposition on the methodology underlying panel data estimation can be found in Alexiou (2001).

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