

SYMPOSIUM
ON THE USE OF THE STRUCTURAL FUNDS

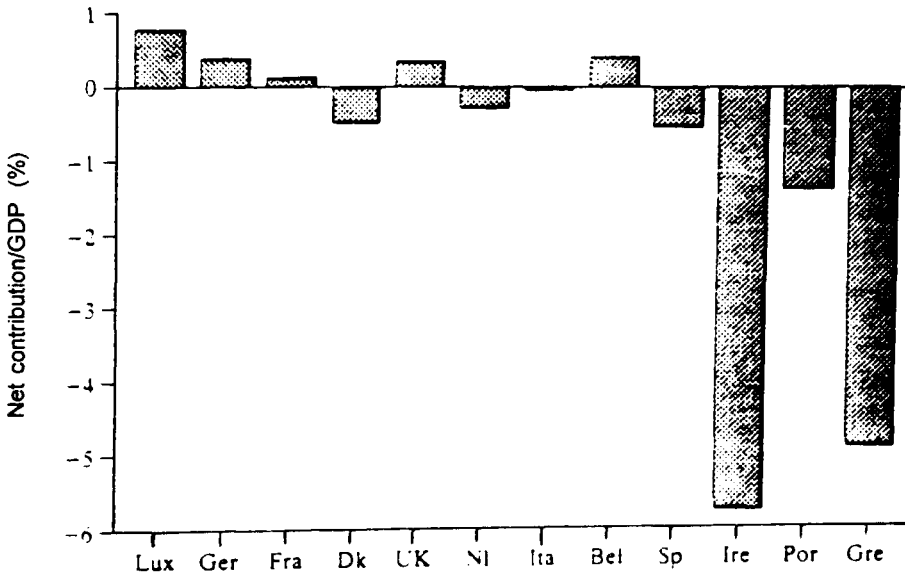
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1. INTRODUCTION

Recent efforts to secure EC funding by Irish governments, and in particular Irish officials, have been a resounding success. Figure 1 gives a graphical account of the extent of this success. This graph expresses member states' net contributions to the EC budget, as a percentage of GDP, for 1990. A priori one might expect that the richest country would be the largest net contributor in GDP share terms and the poorest country the largest net recipient. Member states are ranked along the horizontal axis according to per capita GDP. Our a priori expectation is not fulfilled. The calculations underlying this graph are due to

Figure 1
Member States' Net Contributions to the EC Budget 1990 (as % of GDP)



Source: Smith (1992).

Smith (1992). He notes the problems in calculating net contributions to the budget. However, these are not such as to alter the main message. Ireland does very well from the EC in financial terms.

This is no surprise and it serves merely to confirm the perception that we are experts in the art of "grantmanship". But will this success translate itself into a permanent improvement in our welfare? Are there any principles that can guide the spending of this money so as to best achieve this end? These are questions for tonight's symposium. This contribution will consider the impact that public expenditure can have on economic growth. In particular we survey some recent evidence on this issue. We conclude with some tentative lessons which may provide a basis for our discussion.

2. THE OBJECTIVES OF THE 1989 PLAN

The 1989 Plan was very clear in identifying what needed to be done in order to achieve greater economic and social cohesion. Along with the need for competitiveness in the single market, improvement of the public finances and attention to the social dimension, it stated that we needed to:

... stimulate the growth needed to reduce unemployment, to raise productivity and to begin to increase per capita income towards average Community levels (p. 25).

The overall strategy for achieving this objective rests on three factors (which we might call the "tools" of policy): consensus; the maintenance of a stable financial and cost environment; and the efficient use of markets as an allocation mechanism (p. 26).

The clarity with which the central objective, and the means of achieving it, are identified is laudable. Unfortunately, this clarity has not been complemented by similar clarity with respect to the use of "tools". The objective of stimulating growth should obviously form the centrepiece of the development plan now in preparation. However, there is also a need to identify the factors that contribute to growth. The development plan should contain the government's view on the growth process. In particular this will involve explaining how the "tools" of their strategy will interact. For instance, there is potential conflict between the use of consensus and the efficient operation of markets. This is particularly the case in the labour market. The 1989 Plan stated that "the market for labour must function efficiently" (p. 29) in order for employment returns to be maximized. In practice, market forces have been subdued in the name of consensus.

3. THE GROWTH PROCESS

Ireland is poor among EC countries when ranked on a per capita output basis. Unfortunately the analysis of Irish growth performance is too often superficial, stopping at a comparison of raw growth rates. A proper comparison between our growth performance and that of other industrialised countries is necessary. The basis of such a comparison must be some hypothesis concerning the growth process. The forces driving growth could lead to convergence or greater divergence between countries. The development plan should tell us what view underlies the Irish government position.

One hypothesis, based on the Solow growth model, suggests that there will be convergence. If economies are similar with respect to tastes and technology, the growth rates of capital per worker and output per worker approach the same steady-state level. From this we get the hypothesis that initially poorer economies tend to grow faster in per capita terms. Do we observe such convergence in practice? Barro and Sala-i-Martin (1991) test the convergence hypothesis across US states and across a selection of countries and find some evidence of convergence. In Figures 2 and 3 we update the test of convergence for a group of developed countries which includes the OECD group. The estimated downward sloping lines for the periods 1950-88 and 1960-88 lend support to the convergence hypothesis. The line indicates the growth performance necessary for convergence conditional on initial GDP per capita. Two points should be noted from these figures: Irish growth performance was below that necessary for convergence; and comparisons of absolute growth performance are not appropriate - such an exercise does not compare like with like. In the figures, Ireland's performance compares only with that of Turkey and New Zealand. The UK performance, while not as good as ours in absolute terms, is better in that it is closer to what it ought to have been, given its starting point.

Some may quibble with this analysis on the grounds that it is productivity and not per capita output that is the appropriate grounds for comparison. deLong and Summers (1992) have recently tested a convergence hypothesis related to productivity. Their hypothesis is fairly loose, suggesting that the technology gap between Europe and the US which had opened up by the end of World War II provided greater opportunity for more rapid "catch-up" productivity growth through technology transfer. They find some support for convergence with Ireland again being an outlier. In Appendix Figures 1 and 2, we report a test of convergence using data for GDP per worker from version 5 of the Penn World Table due to Summers and Heston (1991). The story is similar to that in Figures 2 and 3 above. The only notable difference is for the UK where there is evidence of a severe productivity problem in the post-war period.

Figure 2

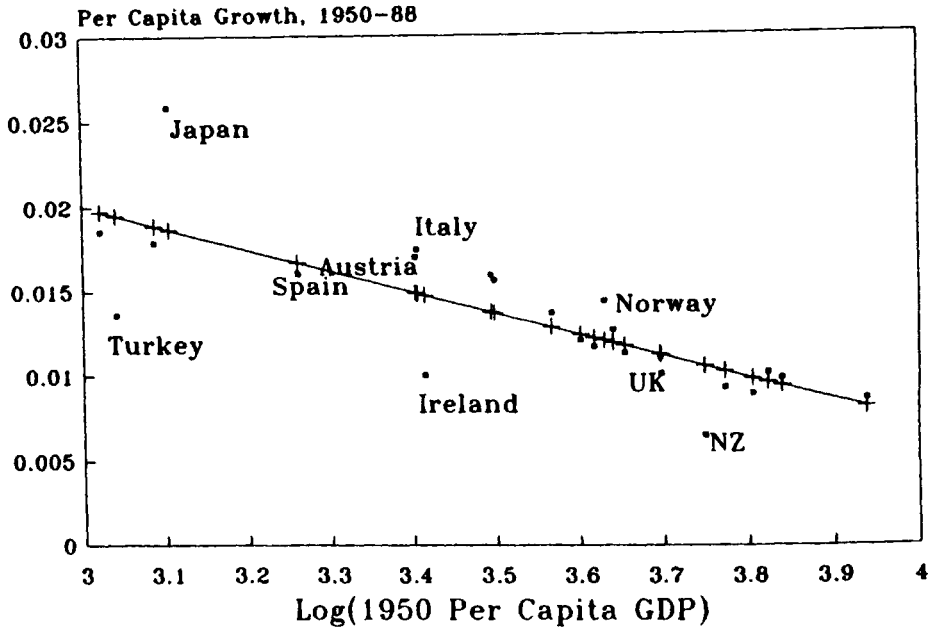
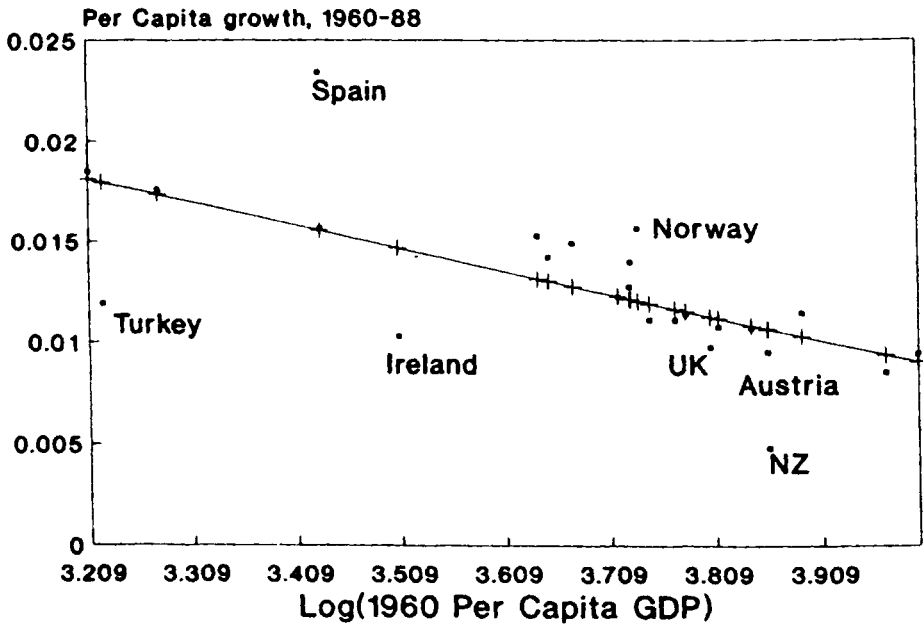


Figure 3



There is a belief, based upon comparisons with the UK, that the Irish growth performance in the last 30 years has been sound. This is a fallacious conclusion based on an inappropriate comparison. The real story is that Irish performance has fallen far short of what it ought to have been. The basic requirement of a development plan is that it contains a view as to why Ireland is an outlier. Is Ireland for some reason tending to a different steady-state? What are the reasons for this? We view the various tests reported above as a means of identifying statistical regularities which should ultimately contribute to the formulation and testing of hypotheses concerning the Irish growth process.

4. DOES PUBLIC CAPITAL INCREASE PRODUCTIVITY?

The new development plan is likely to argue that the Structural Funds will help us to improve on our past performance. What basis do we have for making this assertion? In view of their likely use to build up infrastructure, the obvious question to ask is: does public capital increase productivity? Public capital can be classified as follows: core infrastructure; educational buildings; hospitals; conservation and development structures; and other buildings. Does such public capital have any effect on productivity? There exists a US literature on this topic which ought to be noted with regard to our use of Structural Funds. Aschauer (1989) attempts to determine the relationship between aggregate productivity and the stock and flow of government spending variables. His empirical analysis covers the period 1954 to 1985 and he uses aggregate annual data for the US. He finds that the non-military public capital stock is more important in determining productivity than is the flow of government spending. Of most importance, he finds that core infrastructure has most explanatory power in explaining productivity. The core infrastructure includes motorways, airports, mass transit, public utilities, water and sewerage systems. He reports an elasticity of 0.24 between productivity and core infrastructure. The estimated elasticities for the other elements of the public capital stock are statistically insignificant.

The foregoing would seem to provide strong support for directing Structural Fund expenditure towards core infrastructure. Further support for this position comes from Aschauer's observation that there is a positive relationship between productivity growth and the share of public investment in GDP across G7 countries. However, Aschauer's results have been challenged by Holtz-Eakin (1992). The latter uses state level data to test for a public capital effect on productivity. Without controlling for State specific characteristics he finds an elasticity of 0.203 on public capital. This is similar to Aschauer's elasticity estimate on core infrastructure. Holtz-Eakin argues that the estimating equation which yields this result is mis-specified. He corrects this by controlling for State specific characteristics - such as land area, location, weather and raw material endowments - and finds no role for public

capital in explaining productivity. He concludes that "the best estimate of the elasticity of private output or productivity with respect to State and local government is essentially zero".

What should we conclude from these studies? Care must be taken in generalising from a small selection of studies. However, they do capture the divergence of opinion on this issue. It is certainly not correct to conclude that core infrastructure does not provide direct benefits. The point at issue relates to the spillover effects on productivity from the provision of such amenities. In any cost-benefit appraisal of infrastructure projects we would be safer taking account only of direct benefits and downgrading any supposed spillover effects.

5. LESSONS FROM HISTORY

In recent times some attention has been focused on the economic effects of the Marshall Plan in an effort to draw out implications for reconstruction in Eastern Europe. The Marshall Plan provides an historical precedent from which we in Ireland may be able to draw useful lessons regarding the appropriate use of transfers from Europe. Was the Marshall Plan an economic success? What factors contributed to success?

The Marshall Plan resulted in a transfer of \$13bn from the US to Europe between 1948 and 1951. The significance of the transfer varied across countries. Typically it amounted to 2 per cent of GNP but for Austria it was 6 per cent of GNP and for Sweden only 0.5 per cent. Many equate the Marshall Plan with the rebuilding of roads, bridges and rail networks. However, there is evidence that a substantial amount of this work had already taken place prior to the allotment of funds in 1948. The US attached a number of conditions to the disbursement of funds: recipients had to agree a pack with the US on sound macroeconomics management; each expenditure from the funds had to be negotiated with the American authorities; and for each dollar of aid the recipient had to place an equivalent amount in domestic currency in a counterpart fund to be used for purposes approved by the US (Eichengr en and Uzan, 1992, p. 42).

While the Marshall Plan was undoubtedly a foreign policy success from the perspective of the US, there is some scepticism regarding its contribution to rapid growth in Europe. A number of observers have argued that there is no obvious correlation across countries between the magnitude of Marshall Plan allotments and the pace of economic growth. There are three obvious channels through which the fund could contribute to additional growth: increased investment; an easing of current-account pressure; and an increase in government expenditure. Eichengr en and Uzan (1992) - hereafter EU - find that these can explain very little of the additional growth in recipient countries. The largest contribution is for Austria where an additional 0.15 percentage points of growth can be attributed to the

Marshall Plan operating directly through these channels. They find a significant impact on growth (an additional 8 percentage points for Austria) only when they allow for "interaction effects". Basically what this means is that they control for the extent to which countries were constrained with respect to investment, the current account and government spending.

The conclusion, which seems rather obvious, is that transfers are most effective when made to countries for whom these constraints are binding. More important, however, is their observation that "the Marshall Plan mainly operated by means other than altering levels of investment, the current account and government spending" (p. 34). The innovative element of EU's analysis is their attempt to identify the channels through which the Marshall Plan worked. The benefit of the Plan derived from the role the transfers played in solving what they call Europe's "Marketing Crisis". This crisis manifested itself in the refusal of producers to bring goods to market and in a reduction in the effort devoted to market activity by workers and managers (EU, 1992, p. 15). In this view the Marshall Plan was a success because *it helped markets to work better sooner*. This argument is based on the war-of-attrition model due to Alesini and Drazen (1991). Their model attempted to identify the factors that determined the timing of stabilizations. Where a stabilization has significant distributional implications, a "war-of-attrition" may develop between interest groups: each attempts to hold out in the hope that another group concedes first and thereby bears a disproportionate share of the burden of stabilization. EU's story is that the Marshall Plan aided the speedy resolution of such "war-of-attrition" situations.

Are there lessons for Ireland from the Marshall Plan experience? The first is a purely technical point and relates to the nature of conditionality. As with the Marshall Plan, there are conditions attached to the use of structural funds. In a number of cases, for example in road construction, the recipient government must "match" the EC's contribution to the project with some of its own monies. This is standard practice in federal systems of government. An upper level of government uses the matching requirement to minimise its cost of inducing a lower level of government to provide some given level of a public good. The EC's argument for matching is often somewhat different, however. Paying to get funds, it holds, serves to keep the recipient "honest" with regard to additionality and in identifying worthwhile projects. The matching process in the Marshall Plan was very different in that it separated expenditure of the fund grant from the domestic financing - the contribution to the counterpart fund - of this grant.

There is a case for preferring the Marshall Plan system of matching - contributions to a counterpart fund - to that currently in operation in the EC. In the first place it would simplify the administration of the funds. There would also be an influence on the behaviour of recipient governments. Consider an expenditure heading where a government must match the EC's contribution to the rate of, say, 15 per cent. This will increase the quantity of the

good funded by this scheme which the government demands. If, however, the government has an inelastic demand for this good, its expenditure on this item will be lower than it would have been in the absence of the scheme.¹ This may result in the government reducing its deficit position or maintaining its deficit level and increasing consumption expenditure. This latter outcome would obviously not be desirable. However, it is a possible outcome under current arrangements. The use of the counterpart fund approach would rule out such an outcome. The level of contribution to the counterpart fund could be set in such a way as to maintain government consumption expenditure at the level considered desirable.

The government should seek changes to the current system of matching. There are two sorts of criticism that will be advanced against this proposal. The first is that it is too late to change the rules. Such nihilism can only be viewed with contempt. The EC has every incentive to accept our proposal in that it will not involve additional Commission expenditure. In fact, used properly it would be a means of steering countries towards compliance with the Maastricht guidelines. The other criticism has more merit. It questions the assumed elasticity of the governments' demand for goods subject to EC funding. We can make a case for assuming such demands to be inelastic but we accept that these are far from conclusive. We must recognise, however, the possible undesirable effects associated with the current system of matching. Why not change to a simpler method without such hazardous possibilities?

The second lesson from the Marshall Plan relates to EU's argument concerning the reasons for its economic importance. We will take this up below.

6. WHAT PRINCIPLES CAN BE APPLIED TO THE USE OF STRUCTURAL FUNDS?

Above, we asked why Ireland was an outlier in terms of our growth experience. The operation of economic policy cannot escape scrutiny in this regard. In particular there needs to be debate concerning the interaction between the "tools" of economic policy. There is an uneasy relationship between our desire for consensus on the one hand and our use of the market as an allocation mechanism on the other. If we take EU's point concerning the war-of-attrition, we might question the extent to which the 1989-93 programme has aided or hindered the attempt to resolve the Irish war-of-attrition. Nineteen-eighty-seven represented the year when the decisive step was taken in this regard. Some would argue that we have deviated from this course in recent years. Did the availability of Structural Funds have any role in this policy change? The argument of the previous section noted that the mechanism for disbursing Structural Funds could give rise to an increase in current government spending. Were the public sector pay increases a manifestation of this? The second lesson

that we can take from EU's analysis of the Marshall Plan experience is that the possibilities noted above ought to be taken seriously. We may be witnessing the opposite of the "marketing effect". Whereas the Marshall Plan helped post-war markets in Europe *to work better sooner* the Structural Funds may be enabling Ireland *to avoid market realities longer*. The simplest way to avoid such a possibility involves the introduction of some external constraint. The type of conditionality proposed in the last section could achieve this end.

A second principle is that the spending of funds should be organised in such a way as to minimise rent-seeking. It is obvious why we would want to do this but how can it be achieved? The sub-regional allocation of funds is one of the main areas in which rent-seeking emerges. What principles should be used to minimize rent-seeking activity? The best way to achieve this end would be to devise some "automatic" mechanism for deciding the destination of funds within Ireland, in other words, some form of equalization scheme. This would involve sub-regional allocations being explicitly related to needs and resources. Such a scheme would be very easy to devise and operate. Indeed, much of the work is already done. It is contained in the work carried out for the Barrington Committee by the Institute of Fiscal Studies - see Ridge (1992). It should be possible to modify this scheme for use in sub-regional distribution.

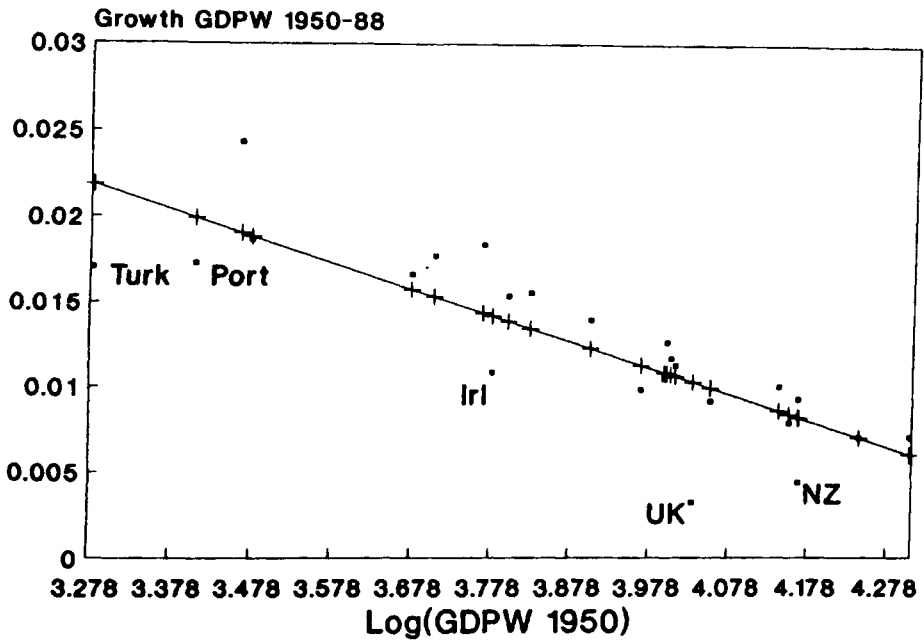
Footnote

1. The comparison here is counterfactual in nature. For this reason exact policing of additionality is impossible.

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Appendix Figure 1



Appendix Figure 2

