OPENING ADDRESS

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WELCOME

I would like to welcome you all to this our third *Budget Perspectives* Conference. The ESRI is delighted to be once again co-hosting the Conference with the Foundation for Fiscal Studies, an easy and fruitful collaboration since both organisations share the goals of careful analysis and relevance to policy. Of course, neither of the host bodies takes corporate or institutional views on the topics being discussed, so that the conclusions drawn in the papers are those of the individual authors themselves.

The 2001 Budget is a very difficult one to frame and its provisions will be carefully scrutinised both within the country and, to a greater extent than in previous years, by analysts abroad. Its objectives must include the balancing of a variety of conflicting aims, such as

- To relieve various forms of congestion and infrastructural bottlenecks without adding excessively to aggregate demand and fuelling inflation;
- To maintain unemployment as low as possible, while curbing unwarranted wage rises in sectors and occupations suffering from labour scarcity;
- To improve state services and overall equity while keeping demand pressures under control;
- To maintain or improve overall competitiveness without reducing living standards.

Squaring circles such as these will require well worked out and sometimes controversial decisions. We hope that the Conference papers will help to inform these choices, and to make clear some of their longer term consequences.

A Macroeconomic Perspective

The first paper by Ide Kearney, Daniel McCoy, David Duffy, Michael McMahon and Diarmaid Smyth takes a detailed look at the assessment of fiscal stance in Irish budgets. This refers to the overall impact of the budget – is it expansionary or contractionary, taking account of the state of the public finances, the stage of the economic cycle and the growth prospects for the economy. The authors conclude that budgetary policy has in general been pro-cyclical in the period 1977 to 1986, counter-

cyclical, and contractionary, in the years 1987 to 1993 and mainly pro-cyclical since 1994. The authors feel that the strategy to be recommended for the 2001 budget depends on one's view of the current boom. If it is seen as the peak of conventional economic cycle, then a deflationary stance is called for. If, alternatively, the economy is thought to be in an exceptional phase as it moves to a higher growth path, then increasing productive capacity through an expansionary budget is the top priority. Reflecting the tension between these views, they recommend a moderately expansionary structural budget but one which incorporates a postponement of the promised tax cuts to the later stages of the PPF agreement.

The International Picture

This year we are delighted to welcome a distinguished speaker from outside Ireland. Professor Ray Barrell is based at the National Institute for Economic and Social Research in London and is a noted expert on the UK and international economies. The unusual extent to which the Irish economy is now open to world trade flows is often not appreciated: our exports alone are approximately equal in value to total GNP. Hence, developments on the international scene are of vital concern in framing an Irish budget. Ray's paper contrasts the situation in the United States, where sustained strong growth and low inflation indicate benign structural shifts in the economy, with the European economies where recent improvements appear more cyclical in character. These differences have important implications for future developments in the euro zone and for policy to deal with them.

Child Income Support

Jim Walsh of the Combat Poverty Agency and Michael Plumb, formerly of the ESRI and now in Sydney University, take a detailed look at an important policy area – methods for the provision of child income support. They suggest that policy in this area, which is significant in terms of the resources devoted to it, lacks coherence. They set out the main schemes which provide income support for children and discuss the policy objectives. Having compared the Irish situation with that in the UK, they outline a strategy for systematic reform of the Irish policies. Their paper concludes by using the ESRI's *SWITCH* model to evaluate the effects of implementing this strategy, on the basis of a substantial increase in the funding devoted to child income support. Despite the size of the increase, the reform examined was shown to have some defects, such as poor targeting towards households at the bottom end of the income distribution, as well as clear benefits. The paper illustrates the scale of resources needed to have significant effects on child poverty and emphasises the value of model-based simulations in studying the effects of policies with complex results.

Regional Issues

Edgar Morgenroth utilises the economic literature on "fiscal federalism" to examine the structure of the various levels of regional government in Ireland. He identifies the functions which can be performed by the different levels of government and how these functions can be optimally

allocated across the various tiers of administration. The paper then sets out the different layers of government and concludes that the functions of the regional assemblies and regional authorities do not conform with those suggested by economic theory. It is suggested that these levels be abolished or have their functions enhanced. A variety of possible functions that could be further decentralised are then discussed and some re-balancing of responsibilities among levels of government suggested.

Final Comment

The papers raise a host of important issues, at both the macro and micro levels. This year, we have left a longer period at the end of the morning for a panel discussion and for participation from the audience. Please use it fully.

1. ASSESSING THE STANCE OF IRISH FISCAL POLICY

*Ide Kearney, Daniel McCoy, David Duffy, Michael McMahon, Diarmaid Smyth**

1.1 Introduction

Strong economic growth and buoyant public finances present the Government with both opportunities and dilemmas in formulating Budget 2001. In addition to targeting resources at specific areas and continuing the process of tax reform, the budget is an opportunity to set fiscal policy to steer the economy to a non-inflationary, sustainable growth path. Membership of Economic and Monetary Union (EMU) limits the range of macroeconomic tools available for economic demand management in Ireland to fiscal and incomes policies. As a small open economy, forming less than 1 per cent in output terms of a large monetary union, the macroeconomic context for Ireland will be predominantly driven by external factors but domestically determined fiscal policy still has a role to play. Monetary policy, as determined through interest rate decisions by the European Central Bank, will be set in response to the perceived needs of the euro area as a whole and are unlikely to reflect the contemporary needs of the Irish economy. Budgetary policy in Ireland, therefore, needs to be set in the context of either accommodative or restrictive monetary and exchange rate policies being pursued in the euro area.

Fiscal stance is a measure of the discretionary changes in budgetary policy, though there is no universal acceptance on its measurement. The fiscal stance can be used to assess the likely expansionary or contractionary impact of budgetary policy on economic activity. The appropriate stance of budgetary policy needs to take account of a number of factors such as the state of the public finances, the stage of the economic cycle and the growth prospects for the economy reflecting its stage of development. These three intertwined considerations are crucial in interpreting what fiscal stance should be. One dilemma for Budget 2001 is how large the fiscal surpluses should be, whether they should be increased further by contractionary policy or reduced by expansionary policy. The answer to this dilemma, if there is only one, depends on whether the economy is in a conventional economic cycle of a developed economy or is in a transition between stages of development. If the Irish economy is moving through a

* Duffy, Kearney, McCoy and Smyth are at The Economic and Social Research Institute, McMahon is at the London School of Economics. We would like to thank our colleagues at the ESRI for useful comments on earlier drafts of this paper.

conventional economic cycle of expansion and contraction, then after seven consecutive years of rapid growth and now in the context of loose monetary and exchange rate policies, the recommended fiscal policy would be a contractionary stance. If, however, the Irish economy is considered to be in an exceptional phase moving between different growth paths, the appropriateness of the conventional fiscal stance measures for such a transition needs to be questioned.

The main focus of the paper is to examine alternative measures of fiscal stance in Ireland. We also give consideration to the appropriate stance for Budget 2001. Section 1.2 sets out the macroeconomic framework within which the budget must be constructed by outlining the short-to medium-term outlook for the Irish economy and the evolution of the public finances in recent years. Section 1.3 considers the way in which fiscal stance is typically assessed, presenting an overview of five alternative measures. In Section 1.4 these alternative measures are used to assess fiscal stance in Ireland over the last twenty-five years, highlighting the degree of uncertainty that permeates such assessments. A recommendation for the use of an indexed measure of fiscal stance is made to overcome some of the subjectivity involved with other measures. Section 1.5 considers the appropriate fiscal stance for Budget 2001 and Section 1.6 concludes.

1.2 Macroeconomic Context for Irish Budgetary Policy

In setting the macroeconomic context any budget should be viewed in a longer time frame than a single year. Thus, budgetary policy should be conditioned not only by the immediate issues facing the economy but also by medium-term issues. In this section we start by considering the short-term economic outlook for setting budgetary policy before moving on to the medium-term context and concluding with a review of the evolution in Irish public finances over the past twenty-five years.

1.2.1 SHORT-TERM ECONOMIC OUTLOOK

The international outlook has become more positive during the first half of 2000. Economic indicators suggest the rate of growth in Europe is increasing and the US economy remains strong. Although remaining weak, the Japanese economy is expected to improve in 2000 and the other Asian economies will continue their recovery from the sharp downturn in 1997. Estimates for world trade suggest that growth could accelerate over the course of the next year. Monetary policy in the euro area, while tightening, still remains loose by historical standards and the euro exchange rate has depreciated significantly since its inception. The IMF (2000a) has calculated an index[1] for Ireland that indicates monetary conditions have been at their most expansionary in the past decade. This continues to be the case despite the rise in euro area interest rates during the first half of 2000 which has been offset by the depreciation in the currency and rising domestic inflation. In this context the monetary and exchange rate

[1] The index is a weighted average of the percentage point changes in the real short-term interest rate and the real effective exchange rate, where the weights are 4 to 1 respectively. The more typical weighting used in the euro area is 7 to 1 but the higher weight given to the exchange rate reflects Ireland's large trade to GDP ratio.

conditions for the Irish economy remain very loose and accommodative of strong economic growth.

The Irish economy continues its remarkably strong rate of output growth. Demand accelerated in the latter half of 1999 and this has carried over into the first half of 2000, underpinned by low interest rates and expectations of significant increases in disposable incomes. The projection is for growth in real GDP to slow somewhat, arising in the main from supply constraints rather than demand factors, as evidenced by a tight labour market. Growth in employment is also expected to slow as the pool of available labour diminishes. The unemployment rate has fallen dramatically in recent years and although some further decline is predicted it will not be as dramatic. The strong demand in the economy has led in part to a sharp rise in consumer prices, but is also putting severe pressures on the economy's infrastructure and the natural environment.

Analysis for the *Quarterly Economic Commentary* (McCoy *et al.,* 2000) indicates that over the next few years the government will continue to enjoy strong revenue growth as a result of the economy's exceptional performance. The public finances have continued to strengthen despite budgetary overruns in some areas through a combination of strong tax receipts and savings from lower debt servicing and lower unemployment. The trend and magnitude of the improvement in the position of the public finances can be observed in Table 1.1.

Table 1.1: Public Finances 1995-2000 (£ millions)

	1995	1996	1997	1998	1999	2000
Current Expenditure	12,029	12,662	14,015	14,412	15,553	16,285
Current Revenue	11,667	12,954	14,619	16,503	18,991	22,089
Current Balance	-362	292	604	2,090	3,438	5,804
General Balance	-1,064	-279	406	1,267	1,330	3,131
Primary Balance	9,94	1,828	2,469	3,002	2,591	4,140

Source: Department of Finance (2000), IMF (2000b), Own Estimates for 2000.

Even allowing for increased capital expenditure, the general government balance is likely to increase substantially as a percentage of GNP. The Exchequer Returns for the first half of 2000 indicate a budget surplus of £2.9 billion driven by growth in tax receipts of 14.5 per cent. While expenditure is expected to rise significantly as is the pattern in the latter half of each year, the Exchequer surplus for the year as a whole is likely to exceed £2 billion. This is higher than the revised Department of Finance forecast of £1.8 billion and is running at 3.1 per cent of GNP excluding privatisation and pre-funding of pension payments. The general government balance, which is a broader measure than the Exchequer balance, was 3.7 per cent of GDP in 1999 or 1.9 per cent when adjusted for pre-funding and privatisation payments. The general government debt to GDP ratio continues to fall as output grows rapidly, standing at 50.3 per cent in 1999.

The rise in inflation during 2000 has increased inflationary expectations resulting in real interest rates in the economy that are either extremely low or negative in some cases. Given the heightened risks of overheating in the economy a policy mix of tighter fiscal policy would seem to be required to offset the loose monetary conditions in order to moderate demand in the economy towards more sustainable levels and to ease inflationary pressures.

1.2.2 MEDIUM-TERM BUDGETARY POLICY

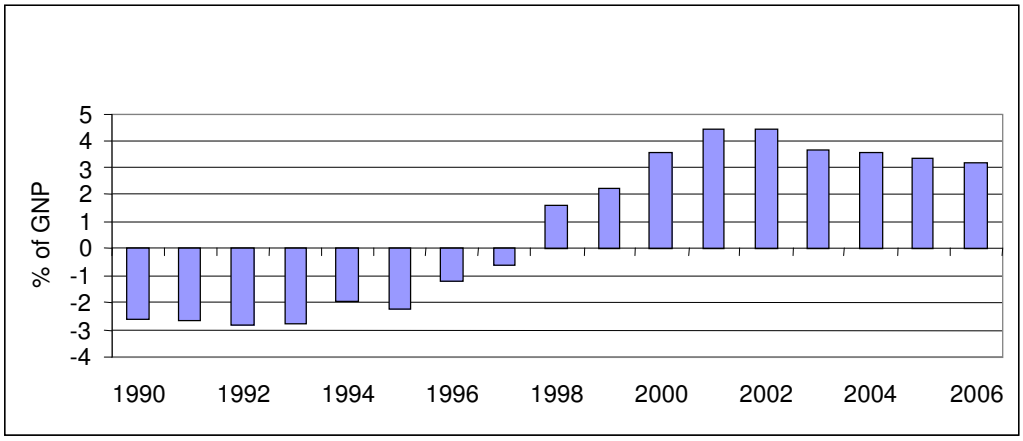
The determination of appropriate fiscal policy has increased in importance since the adoption of the euro. Participating member states are required to submit Stability Programmes to the European Commission setting out their medium-term budgetary objectives and projections to facilitate enhanced surveillance of budgetary positions and co-ordination of economic policies. The Stability and Growth Pact (SGP) incorporates fiscal rules to ensure the sustainability of national debt by requiring budgetary policy to aim for a medium-term objective of budget positions close to balance or in surplus in normal economic circumstances. To facilitate this objective, the budgetary process should adopt a multi-annual focus incorporating a medium-term outlook. In this context the recent decision by the government not to proceed with agreed financial envelopes for departmental spending is an unwelcome development.

In addition to commitments under the SGP, two significant domestic programmes set the parameters for medium-term fiscal policy. These include the expenditure plans made under the National Development Plan (NDP) and the budgetary commitments contained in the social partnership Programme for Prosperity and Fairness (PPF). The NDP involves expenditure of £5.3 billion per annum, or £40.6 billion in total, over the period 2000-2006 to address Ireland's development needs. The PPF outlines commitments on taxation and social inclusion expenditure over a thirty-three month period to 2002 though the precise magnitude of the impact for the public finances have not been specified. Both of these programmes will significantly constrain the broad parameters of Budget 2001.

Based on the analysis undertaken for the ESRI *Medium-Term Review* (Duffy, *et al.*, 1999), the most likely scenario is that the current rapid economic growth will gradually slow to an annual average for GNP growth of 5 per cent between 2000 and 2005. The public finances will remain healthy, with a strong surplus and a declining level of debt. Because of a dramatic fall in the dependency ratio the burden of providing necessary public services is likely to fall in the period to 2005. Even allowing for a major increase in public investment in infrastructure over the next planning period to 2006 under the NDP, the government will continue to enjoy a substantial surplus, averaging more than 2 per cent age points of GNP over the course of the next decade. The General Government Surplus is envisaged to average around 3.5 per cent of GNP per annum between 1999 and 2005, see Figure 1.1. These figures are based on budget balance inclusive of the one per cent of GNP pension pre-funding commitment but exclude privatisation receipts. This is the appropriate measure for assessing fiscal stance.

Figure 1.1: General Government Balances 1990-2006

(as % of GNP)



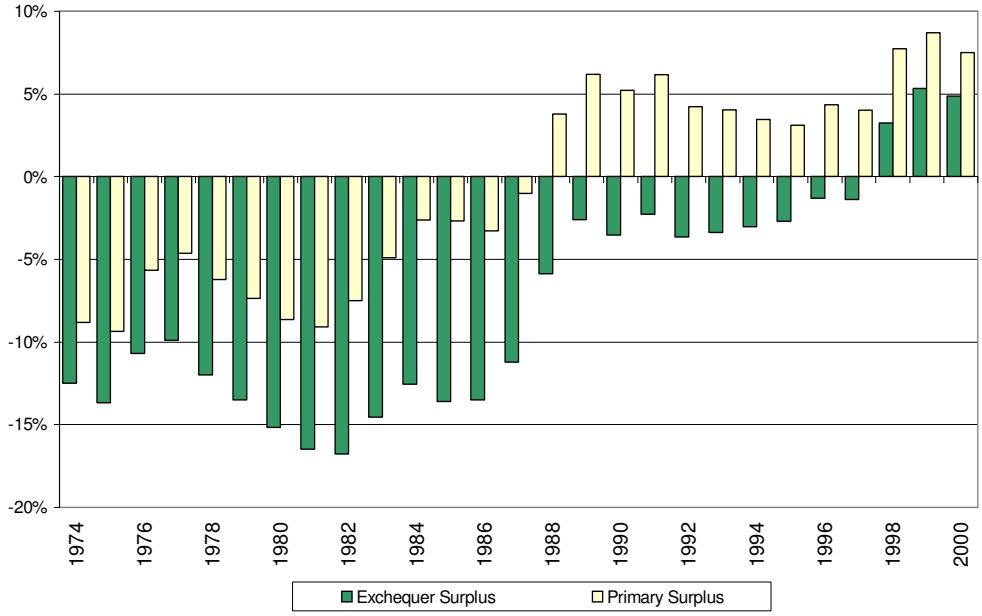
Source: Duffy, *et al.* (1999).

1.2.3 THE EVOLUTION OF THE BUDGET BALANCE 1974-2000

The evolution of Irish budgetary policy over the past twenty-five years is well known,[2] see Figures 1.2 to 1.4. An expansion in current expenditure in the 1977 budget set the share of government current spending in GNP on a steady upward trend, rising from 37 per cent in 1977 to 45 per cent by 1981. This in turn led to a succession of deficits on the exchequer accounts running well above 10 per cent of GNP per annum, see Figure 1.2. Between 1975 and 1981 the debt-to-GNP ratio climbed by almost 18 percentage points and the exchequer deficit averaged more than 13 per cent of GNP. In a European context, analysis by the EU Commission shows that total government expenditures in countries belonging to the euro area amounted to 35 per cent of GDP in 1970. This increased by over 17 percentage points to a peak of over 52 per cent of GDP in 1993, largely the result of expanding social transfers and interest payments. In contrast, Irish government total expenditure peaked at 56 per cent of GDP in 1982 from 37.5 per cent in 1970.

Figure 1.2: Exchequer and Primary Balances 1974-2000 (as % of GNP)

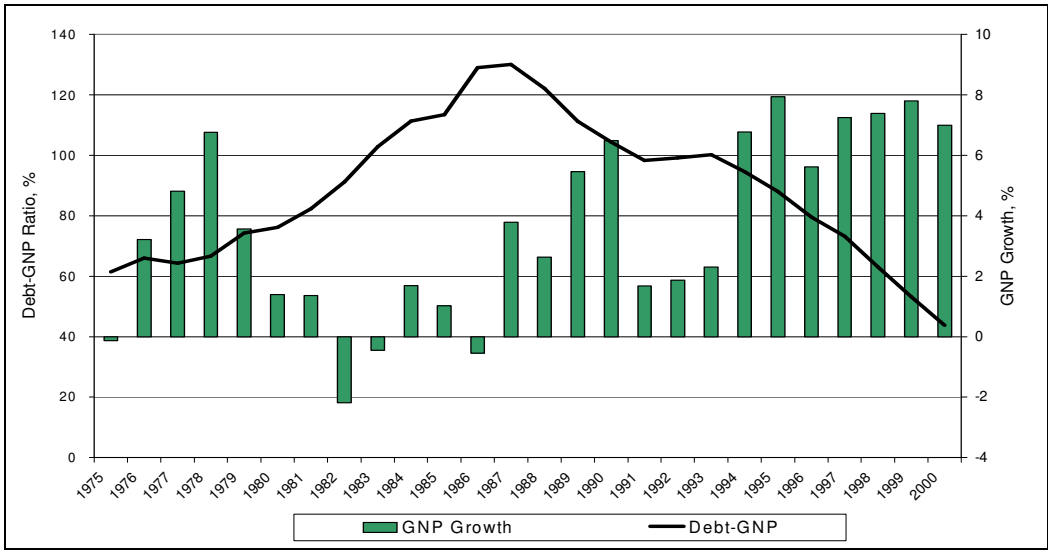
[2] See Honohan (1999) for a discussion of the phases of Irish fiscal policy over the past twenty-five years.



The long-term non-sustainability of Irish fiscal policy received considerable attention following the second oil crisis, when rising real interest rates sent the public finances into a downward spiral, with an ever-increasing portion of exchequer funds being used to service the growing public debt. In addition, the prolonged recession of the early 1980s led to a cyclical increase in the deficit as rising unemployment increased expenditure on transfers and reduced tax revenues. In this period, the primary deficit fell sharply as a result of a rising burden of taxation, while the share of non-interest current expenditure stabilised at just over 40 per cent .

It was towards the end of the 1980s before the deficit and the debt finally came under control, with strongly deflationary budgets introduced in both 1987 and 1988. In contrast to the corrective budgets of the early 1980s, which were largely based on tax increases and cuts in public investment, these were based on sharp reductions in current expenditure. Furthermore, they coincided with an export-led growth recovery that facilitated the fiscal adjustment. Consequently, the debt-GNP ratio began to decline from a peak of 130 per cent in 1987 and the primary surplus became positive.

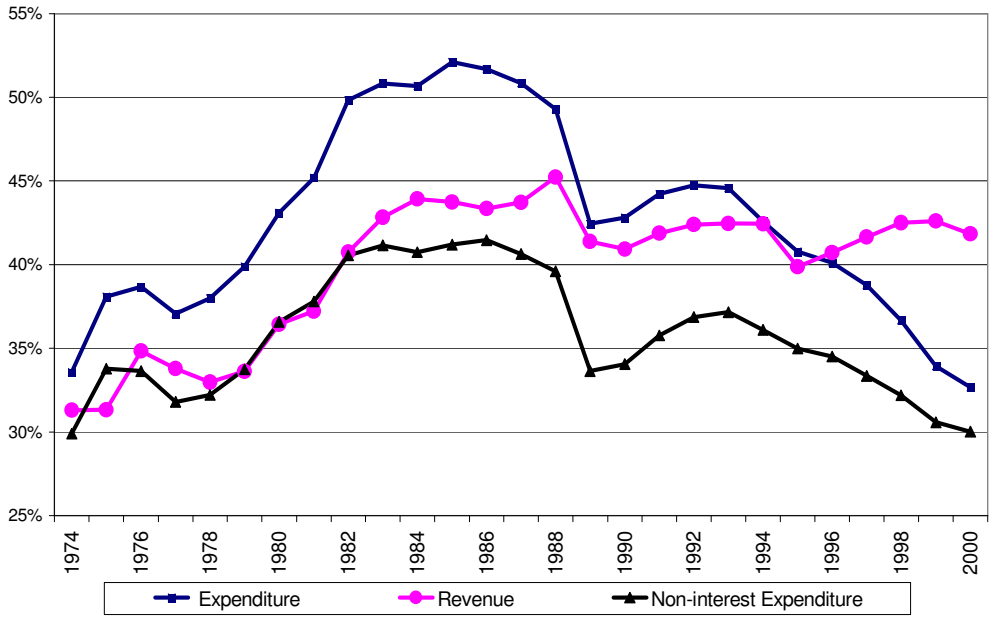
Figure 1.3: GNP Growth and Debt/GNP Ratio



In the 1990s the public finances continued to improve, and the exchequer finances finally moved into surplus in 1998. The average tax burden, which is roughly equal to the share of government current revenues in GNP, stabilised at around 42 per cent. With strong growth in the economy in more recent years there has been the steady decline in the share of current expenditure in GNP, with the share of non-interest current expenditure in GNP forecast to fall to 30 per cent in 2000 from a peak of 41.5 per cent in 1986. Fiscal consolidation in the run up to EMU led to a fall in the expenditure ratio for euro countries to approximately 47 per cent of GDP in 1999. In Ireland this ratio fell to 34.5 per cent in 1999. Unlike expenditures, the revenue ratio for euro countries is only expected to start falling from its historically high level of 46 per cent of GDP in 1999. Irish government total revenue as a percentage of GDP peaked in 1988 at 43 per cent and has declined to just under 37 per cent in 1999.

The path of budgetary policy in Ireland over the last two decades has clearly been a turbulent one. To understand this path it is important to distinguish between induced and automatic changes in exchequer balances. To identify the impact of discretionary fiscal policy on the budgetary arithmetic, it is necessary to disentangle the changes due to the economic cycle from those changes that are attributable to deliberate policy choices by the authorities. We examine the most popular methods used to estimate these discretionary changes, broadly defined as measuring the fiscal stance of the government, in the next section.

Figure 1.4: Current Expenditure and Revenue (as % of GNP)



1.3 Measuring Fiscal Stance

Measuring fiscal stance is an attempt to capture in a single indicator the combined macroeconomic effects of all the various decisions taken in a budget in respect of public expenditure and taxation. The macroeconomic impact of a government's budget is typically judged on whether the fiscal stance is considered to be expansionary or contractionary in terms of either boosting or dampening aggregate demand in the domestic economy. There is, however, no universally accepted indicator or methodology for assessing fiscal stance.

One, albeit crude, way of producing an indicator of the fiscal stance is to sum revenue inflows and expenditure outflows and take the difference between them to produce a budget balance. Increasing deficits (diminishing surpluses) in the budget balance would be considered expansionary as the government is putting more resources into the economy than it is withdrawing. Increasing surpluses (decreasing deficits) would be considered contractionary. Variations in this unadjusted budget balance can give a misleading indication of fiscal stance since it fails to distinguish between the budget's influence on the economy from the economy's influence on the budget. Improvements in fiscal balances may mask deterioration in the underlying public finances, particularly during a strong economic growth phase. This can give rise to the phenomenon of "bad policies in good times".

Actual budget balances reflect both cyclical developments and discretionary budgetary decisions. Therefore adjusting budget balances to account for the economic cycle is an important task. Fluctuations in economic activity significantly affect budget receipts and expenditure. During expansions tax receipts increase while some expenditures, such as unemployment benefits, decline and the reverse movements occur in recessions. The movements in these budgetary categories are referred to as

"automatic stabilisers" that operate to offset the effects of the economic cycle and lead to counter-cyclical movements in aggregate demand in the absence of any discretionary changes by the fiscal authorities (van den Noord, 2000). When adjusted for the cycle, a budget close to balance is consistent with counter-cyclical fiscal policy when these automatic stabilisers are factored in. In this context an expansionary (contractionary) policy would be a decrease (increase) in the cyclically adjusted balance.

The problem is that there is no generally accepted method of calculating what part of the budget balance is due to short-term transitory factors caused by cyclical events and what part is structural resulting from decisions made by the fiscal authorities. The standard approach is to estimate a cyclically adjusted or "structural" budget balance. This is referred to as the "gaps and elasticities" approach that involves estimating an output gap measure and then using this along with elasticity measures to adjust budgetary items. This measure is defined as what the budget balance would be, were the economy operating at capacity, typically defined as full employment output or trend output. Many international institutions, including the OECD (1999), the EU Commission (1999) and the IMF (2000b) produce estimates of cyclically adjusted budget balances based on this definition.

There are a number of difficulties in interpreting the structural budget balance as an indicator of fiscal stance. First, there are methodological difficulties surrounding the definition and measurement of capacity output to generate the gap measure and the underlying elasticities in the measures favoured by the international agencies. Blanchard (1990) argues that the choice of a benchmark for the economy is "needlessly controversial" in measuring fiscal stance. The definition of capacity output involves making implicit assumptions about the future course of the economy that are unnecessary if we are interested is assessing fiscal stance.

Second, the structural budget balance (SBB) measures the total effects of discretionary policy, that is a cumulative measure, and does not measure the impact of the current year's budget relative to the previous year's budget. This could lead to misleading conclusions on the direction of policy in the current year. For example, if discretionary fiscal policy has over a number of years led to a substantial widening in the structural deficit, then a tightening of policy which narrows but does not close the deficit will still indicate a loosening of fiscal policy relative to the base year.

Because of these difficulties many institutions now use the *change* in the SBB as a measure of fiscal stance, which is an incremental measure. The rationale being that fiscal stance can only be interpreted meaningfully in comparison to policy decisions in a previous time period so it is the change, not the level, of the budget balance that is the relevant consideration. This assumes that the previous year's policy mix is permanent, and considers the current year's budget relative to this baseline. If the SBB increases (decreases) in a given year, then this would imply a tightening (loosening) of fiscal policy in that year's budget. To arrive at an estimate of the total stance of discretionary fiscal policy over a number of years, these changes can be aggregated over time.

Alternatively, an incremental measure of fiscal stance can be estimated directly. Blanchard (1990) suggests a methodology that avoids the difficulties associated with the calculation of capacity. His "indicator of

discretionary changes in policy" is defined as the difference between the budget balance if unemployment had not changed from the previous year, thereby eliminating the cyclical component of the budget, and the previous year's budget balance. A zero difference would imply a fully indexed budget with no discretionary policy changes in the current year, while a positive (negative) difference indicates a tightening (loosening) of fiscal policy. To avoid difficulties associated with changes in inflation and interest payments, Blanchard suggests using the primary fiscal balance, which is the fiscal balance net of interest payments.

Another method of estimating fiscal stance is to use a macroeconomic model to simulate the effects of an indexed budget, where indexation is based on the previous year's budget. The difference between the indexed budget balance and the actual budget balance is a measure of fiscal stance. A positive (negative) difference indicates a loosening (tightening) of fiscal policy. This measure is based on the incremental approach and so can be cumulated over time. The advantage in using a macroeconomic model for estimation is that it allows for the implementation of detailed indexation rules for different items of revenue and expenditure.

An additional approach is to use Structural Vector Autoregression (SVAR) analysis, which is sometimes referred to as shock or disturbance analysis (McCoy, 1997). This method decomposes changes in the budget balance into those arising from output shocks and fiscal shocks. The traditional gaps and elasticity approach only consider the possibility for one-way causation from the output gap to the fiscal balance. The output gap, however, can be modified by fiscal policy. It is expected that through a smoothing effect the observed output gap will be reduced by fiscal policy. By failing to take account of this effect, the traditional procedure is likely to overestimate the deterioration of the structural part of the deficit (Bouthevilain and Quinet, 1999).

We identify five separate measures of fiscal stance that we outline below. These can be categorised into three broad approaches:

1. **Gaps and Elasticities Approach**
   - **Production Function Measure**
   - **Trend Smoothing Measure (Hodrick Prescott Filter)**

2. **Incremental Approach**
   - **Indexed Budget Measure (HERMES Method)**
   - **Blanchard's Discretionary Changes Measure**

3. **Structural VAR Approach**

In Section 1.4 we estimate these measures for Irish budgetary policy and discuss what they suggest about the direction of discretionary fiscal policy over the past twenty-five years. We now briefly outline the main features of the alternative measures. A more technical description of these measures is contained in the Appendix.

1.3.1 GAPS AND ELASTICITIES APPROACH

The gaps and elasticities approach is a two-stage procedure. The first stage is to estimate the output gap. This is computed using a benchmark "potential" output measure. There are a number of methods used to

estimate potential output. Two of the most common methods are the production function approach and the trend smoothing approach. The production function approach estimates potential output based on calculations of full employment and trend productivity. The trend smoothing approach tries to filter an estimate of trend output from the data over time, the most common method is the Hodrick-Prescott (H-P) filter. The output gap, which is the difference between potential and actual output, is then a measure of the cycle.

The second stage is to use the output gap to estimate the cyclical component of the budget balance using a series of revenue and expenditure elasticities. These elasticities measure the sensitivity of specific budget items to changes in output. Revenues are typically much more sensitive to the cycle than expenditures, since all tax revenues vary with the cycle while transfers are the only item of expenditure treated as directly linked to the cycle. Multiplying these elasticities by the output gap gives an estimate of the cyclical component of the budget. The cyclically adjusted balance is then obtained by subtracting the cyclical component from the actual balance.

Applying the "gaps and elasticities" approach, structural revenue and expenditure items are derived by multiplying actual revenue by the output gap weighted by an elasticity, with the latter measuring the sensitivity of that particular revenue item to changes in GDP. If there is no output gap, then actual and structural revenues coincide and the cyclical component is zero. Summing over all revenue items then gives structurally adjusted government revenue. Similarly adding structural estimates of transfer payments to actual expenditure on other items gives an estimate of structural expenditures.

Production function methods are based on theoretical concepts of capacity, with the economy's potential output level defined as that consistent with a sustainable non-inflationary level of employment of all factor inputs. This is the method preferred by the OECD to estimate potential output as outlined in Giorno *et al.* (1995). The measure of potential employment is derived from estimates of the non-accelerating inflation rate of unemployment (NAIRU). This is the main difficulty with the approach as identifying full employment in any economy is difficult, however this is compounded in a highly open labour market such as Ireland's (Cronin and McCoy, 1999). Therefore this estimate of full employment is subject to much uncertainty.

Trend smoothing methods involve applying statistical techniques to "smooth" output and thereby decomposing it into its structural and cyclical components. One of the most common methods is based on the H-P filter. This approach is used by the IMF, the European Commission and the Department of Finance in the EU Stability Programmes.[3] This method estimates trend output by applying a weighted moving average, or fitted trend, to the economy's actual output. One of the main advantages of this approach is that it is relatively straight forward, in the sense that all that is needed for estimation is an output time series for GDP. This,

[3] The Department of Finance (1999) have indicated their reservations about the appropriateness of this measure for a small open economy like Ireland.

however, is also its main weakness, as no account is taken of resource constraints. For example, no account is taken of an economy's factors of production, and consequently whether or not estimated output is even capable of being produced. Because of this, trend-smoothing methods are often criticised as being overly mechanistic as they fail to incorporate basic economic fundamentals in estimation.

A further weakness with the H-P filter is that it cannot adequately account for sudden large upswings or downturns in economic activity, as it merely smoothes over their impact. It also suffers from what is known as the "end-point" problem. This arises from the assumption in estimation that the beginning and end of the economic cycle are similar points. If this is not the case, then the estimated trend can be biased upwards or downwards depending on the position of actual output at the end of the sample period. For example, if one were to apply the filter to Ireland, it is likely that trend output would be overestimated because of the fact that the economy has been booming in recent years. The most obvious way of tackling such a problem is to include forecasts for the years ahead so as to try and give the most recent years less weight in the estimation process. This use of forecasts introduces an element of subjectivity into the estimation of the output gap.

1.3.2 INCREMENTAL APPROACH

There are difficulties in interpreting estimated structural budget balances, particularly as indicators of fiscal stance, since they are based on a benchmark measure which implicitly defines the path to which the economy is expected to return. Such difficulties can be avoided by basing the measure of fiscal stance on the change in discretionary policy relative to the previous year's budget. Two such methods are an indexed budget measure using the ESRI HERMES macroeconomic model and Blanchard's indicator of discretionary change.

The HERMES indexed measure can be derived by comparing the actual budget balance in a given calendar year with that which would have pertained in the absence of any budgetary changes in that year, an indexed budget. The difference between the two is then an indicator of discretionary change in policy. The concept underlying the HERMES indexed budget measure is that in the absence of any policy changes, revenues and cyclical expenditure items will grow in line with actual output growth while non-cyclical expenditure items will grow in line with trend output growth.

The indexed budget is computed assuming no change in average tax and expenditure rates from the previous year, and applying the actual growth rate to the revenue and cyclical expenditure base. The use of average tax and expenditure rates ensures full indexation of the tax and welfare system. The non-cyclical expenditure base grows at trend growth rate.[4] The indicator of discretionary change is defined as the difference between the indexed and actual budget. A positive indicator suggests a

[4] In previous estimates (Duffy, *et al.,* 1999), there was no volume growth in non-cyclical expenditure which built in a deflationary bias to the indexed budget measure. This has now been corrected by using trend volume growth.

loosening of fiscal stance. It is relatively straightforward to estimate an indexed budget outcome in some detail using the HERMES macroeconomic model. This includes a detailed series of relations describing public sector activity and its interaction with the rest of the economy.

Blanchard (1990) defines an indicator of discretionary change as "the value of the primary surplus which would have prevailed, were unemployment at the same value as in the previous year, minus the value of the primary surplus in the previous year, both in ratio to GNP in each year" (p.12). By using the previous year as the benchmark, Blanchard's indicator of discretionary change captures policy-induced differences attributable to the current year's budget, in other words it is an incremental measure of fiscal stance.

The cyclical element of the current year's budget balance is removed by assuming the unemployment rate, or employment gap, is unchanged from the previous year, and inferring the output growth rate that would have then prevailed. This can be inferred from the Okun coefficient, which estimates the long-run relationship between unemployment and output. Using this benchmark, and a set of elasticities, a cyclically adjusted budget balance is calculated. Comparing this with the previous year's actual balance gives an indicator of policy changes in the current year. To adjust for inflation and interest rates, the indicator is based on the primary budget balance.

Blanchard's indicator is designed to be simple and easy to implement so it ignores more slowly changing factors such as demographic variables. More generally, Blanchard argues that cyclically adjusting budget balances is an inappropriate methodology for assessing the sustainability of fiscal policy or the relationship between fiscal policy and aggregate demand.

1.3.3 STRUCTURAL VAR APPROACH

The problem with most measures of fiscal stance is their inability to distinguish between the budget's influence on the economy from the economy's influence on the budget. One attempt to take account of this is to use a structural vector autoregression (SVAR) model to decompose the fluctuations in deficit-to-GDP ratio into fluctuations arising from shocks to output and those arising from shocks to the deficit itself.

Once the SVAR has been estimated, the structural component of the deficit can be calculated as the accumulation of the fiscal shocks over the review period. That is, the part of the deficit resulting from the policy actions of the government and not as a result of deviations from "normal" or potential economic growth. Likewise, the cyclical component is derived from shocks to GDP over the period. The main disadvantage of this approach is the fact that the identifying procedure used in the SVAR is, inevitably, to a certain degree subjective. Therefore, the estimates are sensitive to small changes in the restrictions. SVARs are also poor at capturing structural breaks that may have occurred in an economy.

1.4 Estimates of Fiscal Stance for Ireland

Doubts on the suitability of the traditional stance measures for a small open economy like Ireland motivated us to estimate a range of measures to see if they provide a coherent assessment of fiscal policy. In this section we use the five measures outlined above to estimate the stance of fiscal policy in Ireland over the last twenty-five years. A fairly consistent assessment on budgetary policy from these measures over the period up until the latter half of the 1990s is evident. It is in the latter period that a significant divergence occurs between the standard gaps and elasticities approach, adopted by the international agencies, and the incremental approach. The main source of the divergence lies in the difficulty in using the gaps and elasticities approach in a fast growing, open economy like Ireland. Potential output estimation in an economy experiencing rapid growth and structural transition is fraught with uncertainty and calls into question the suitability of using such measures to assess fiscal policy in Ireland. The incremental approach, in avoiding this problem of deciding on a potential output estimate, we believe offers a more reliable assessment of discretionary fiscal actions.

The time period under review, 1977-2000, can be split into five sub-periods. The periods chosen were based on four phases of distinct shifts in Irish fiscal policy identified by Honohan (1999) as

1977-1981	Unsustainable Expansion
1982-1986	Good Intentions
1987-1989	Decisive Action
1990- present	A New Equilibrium

We further split the post 1989 period into two sub-periods,

1989-1993	"New Equilibrium"
1994-2000	"Celtic Tiger".

There is a high degree of consensus among the five measures on the direction of fiscal policy over most of this period, the main exception being during the "Celtic Tiger" period, though there is some ambiguity on the magnitude of the stance throughout. Estimation of all the various measures, which is described in more detail in the Appendix, is dependent upon a range of parameters. Differences in the choice of values for these parameters can introduce considerable variation in the alternative measures adding significant subjectivity to the assessment of fiscal stance.

The gaps and elasticities measures are particularly dependent on the choice of potential output values that can alter the size of the output gap significantly. The gap measures produced on what we consider plausible values for the production function method indicate that the Irish economy is operating significantly above its sustainable potential output, particularly since 1997. While the trend smoothing measures indicate a similar pattern, the magnitude of the difference between actual and potential output is typically smaller for a range of smoothing parameters, see Appendix.

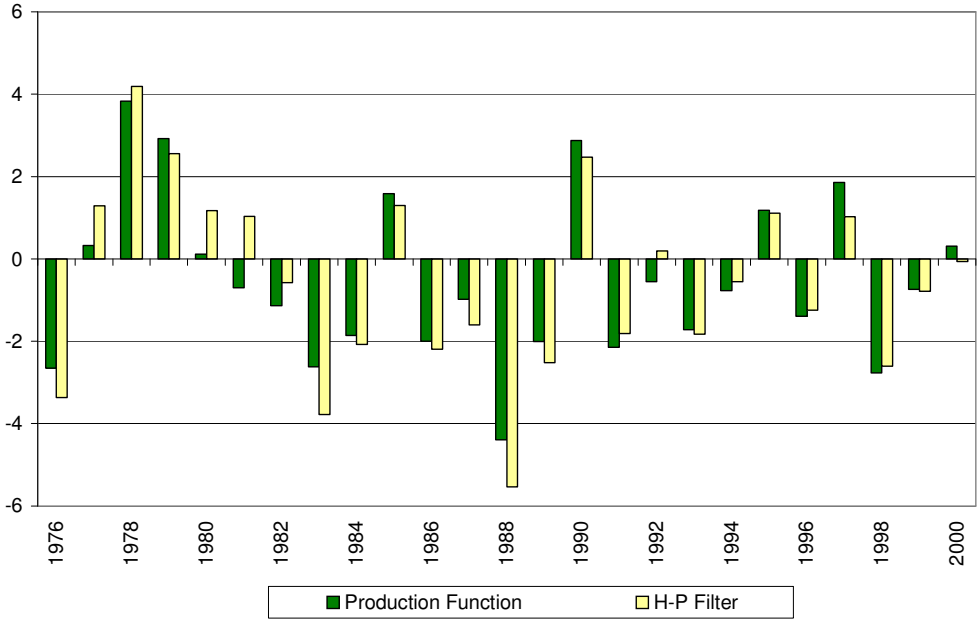
Figure 1.5 shows the change in the structural budget balance for the production function method and the Hodrick-Prescott filter, where positive (negative) values indicate expansionary (contractionary) phases. While there are differences in individual years, these measures broadly follow a similar pattern. Fiscal policy was expansionary in the late 1970s, while during the 1980s it moved into a contractionary phase. The

production function method suggests that this contractionary phase ended in 1990 while the H-P filter suggests a year earlier. Both methods seem to concur during the assessment of more recent budgets suggesting that these have been mildly contractionary or neutral.

The assessment of recent budgets being neutral or contractionary concurs with the assessment of the IMF (2000a) in their recent report on Ireland and with the Department of Finance (1999) in its Stability Programmes, both of which use the trend smoothing method. As the IMF (2000a, p. 21) concede their trend smoothing approach "relies on estimates of potential growth, which normally would be stable but is more uncertain in Ireland. If recent potential growth were lower than staff estimates suggest (7.5 per cent in 1997-99), for example, the SBB measures would show a looser fiscal stance than indicated". The Department of Finance (1999, p.27), using 7.7 per cent trend growth rate in 1997-1999, likewise caution on the appropriateness of the trend smoothing method for Ireland "the relevance of the trend output for a small open economy has not been established".

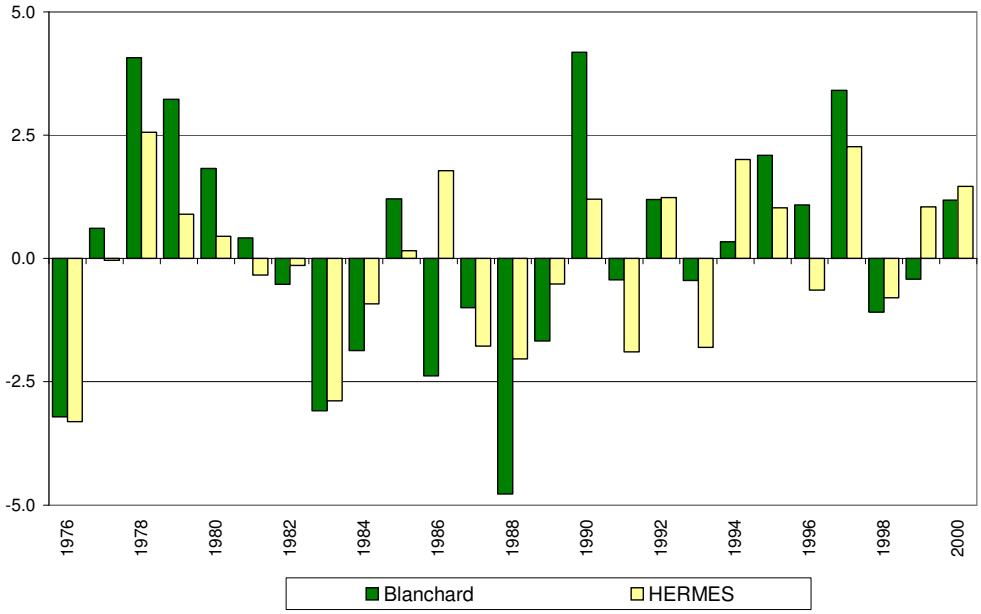
In contrast a potential output growth of 5 per cent , a rate close to that considered sustainable over the medium term by many domestic agencies such as the Central Bank and the ESRI, would have shown the fiscal stance over 1997-1999 to be expansionary. This difference in potential output growth is a significant factor in explaining the variation in fiscal stance assessment by the alternative gaps and elasticities measures. It is this sensitivity to the uncertainties surrounding potential output growth that encourages the use of methods that do not depend on trend growth determination.

Figure 1.5: Changes in Structural Budget Balance Using Gaps and Elasticities Approach (as % of GDP where +ve is expansionary and –ve is contractionary)



The incremental approach methods, for the most part, yield fiscal stance measures that are similar in terms of direction and timing, though the magnitude differ somewhat. Figure 6 shows the estimated results over the period 1975-2000 using the HERMES indexed measure and Blanchard's indicator of discretionary change. Again positive (negative) values indicate expansionary (contractionary) phases. These measures both suggest that Budget 2000 was expansionary but differ on the stance in 1999, with the HERMES viewing it as expansionary and Blanchard measures assessing it as broadly neutral.

Figure 1.6: Incremental Measures of Fiscal Stance (as % of GDP where +ve is expansionary and –ve is contractionary)



We also used a SVAR approach in the Irish context. This method, however, proved to be the least reliable indicator of stance compared to the consensus among the other measures. The SVAR method concurs with the other methods that policy was expansionary in the late 1970s and contractionary in the early 1980s, but it deviates considerably from 1987 onwards. This method suggests that the budgets between 1997-1999 were expansionary, see Figure 1.7 where positive (negative) values indicate expansionary (contractionary) phases.

Table 1.2 shows the direction of policy change suggested by all five indicators, together with the most recent IMF, OECD and European Commission estimates. Clearly there is a high degree of consensus about the direction of policy in individual year budgets across all these measures. In the most recent period, all eight indicators agree that the 1995 and 1997 budgets were expansionary, while five out of eight agree that the 2000 budget was expansionary.

Figure 1.7: The SVAR Measure of Fiscal Stance
(as % of GDP where +ve is expansionary and –ve is contractionary)

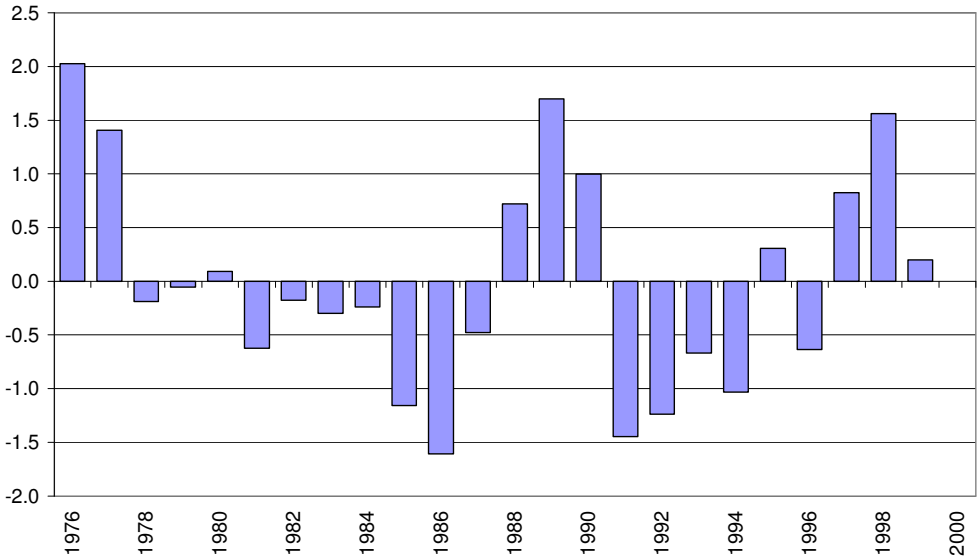


Table 1.2: Direction of Discretionary Change in Irish Fiscal Policy
(+ Loosening, - Tightening)

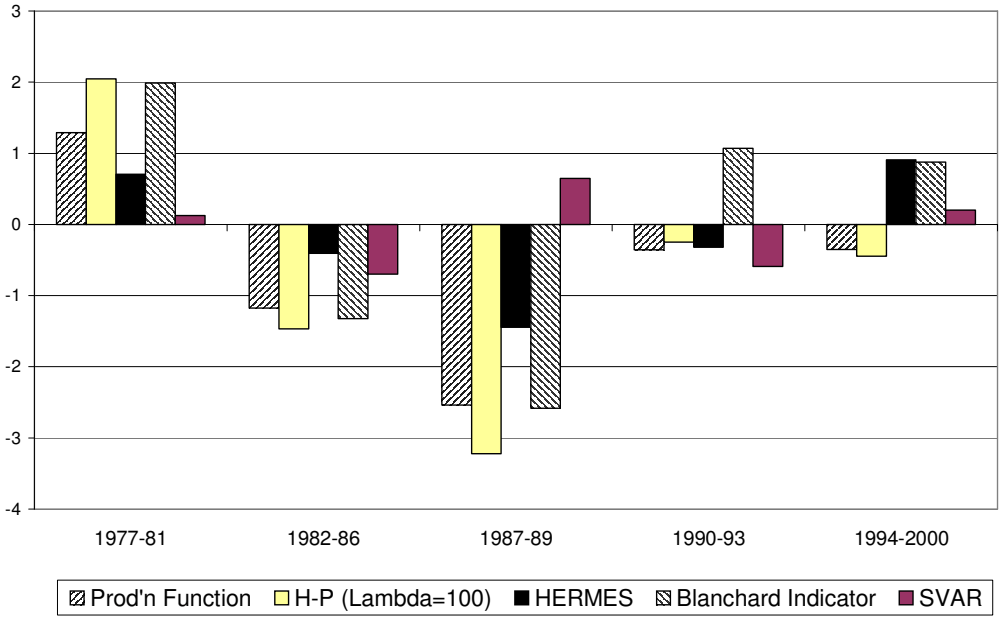
	Production Function	Hodrick Prescott	HERMES	Blanchard	SVAR	IMF	EU	OECD
1977	+	+	-	+	+		+	
1978	+	+	+	+	-		+	
1979	+	+	+	+	-		+	
1980	+	+	+	+	+		+	
1981	-	+	-	+	-		+	
1982	-	-	-	-	-		-	
1983	-	-	-	-	-		-	-
1984	-	-	-	-	-		-	-
1985	+	+	+	+	-		+	+
1986	-	-	+	-	-		-	-
1987	-	-	-	-	-		-	-
1988	-	-	-	-	+		-	-
1989	-	-	-	-	+		-	-
1990	+	+	+	+	+		+	+
1991	-	-	-	-	-		-	-
1992	-	+	+	+	-	-	+	-
1993	-	-	-	-	-	-	-	-
1994	-	-	+	+	-	-	+	-
1995	+	+	+	+	+	+	+	+
1996	-	-	-	+	-	-	-	-
1997	+	+	+	+	+	-	+	+
1998	-	-	-	-	+	-	-	-
1999	-	-	+	-	+	-	+	-
2000	+	-	+	+		-	+	-

Sources: EU Commission (2000), IMF (2000b), OECD (1999).

The implied fiscal stance cumulated over the successive periods is shown in Figure 1.8. The period 1977-1981 shows a cumulative expansionary effect, reflecting the strong expansion in current expenditure, while the budgets of the 1980s show up as contractionary, particularly in the 1987-1989 period of sharp fiscal adjustment. The exception is the SVAR measure, which perversely interprets the latter part of the 1980s as an expansionary phase contrary to most interpretations of this era.

We consider the HERMES model estimates to be the most reliable for Ireland, given the detailed indexation rules upon which they are based. The other measures rely on broad budget balance aggregates that do not capture the underlying structure of the budget. The gaps and elasticities measures rely on average elasticity relationships applied to aggregate data and approximate calculations of trend or potential output are used. The rapid growth in economic activity and the high mobility of the factors of production means that there is considerable uncertainty on what is the sustainable, potential growth rate in Ireland. This makes the gaps and elasticities measures less reliable for assessing fiscal stance in a period of considerable changes as during the "Celtic Tiger" phase. The SVAR measure uses an arbitrary classification of fiscal and output shocks into temporary and permanent effects that may not capture effectively the real dynamics in the economy. The Blanchard indicator depends upon an assumed stable relationship between changes in unemployment and economic activity, which is not appropriate for Ireland.

Figure 1.8: Cumulative Estimates of Budget Impulse (as % of GDP[5] where +ve is expansionary and –ve is contractionary)



[5] Except the HERMES measure which is expressed as a % of GNP.

On the basis of our preferred measure, the cumulative effects estimated by the HERMES indexed measure are in general more modest than under the other methods. The exception to this is in the "Celtic Tiger" period, 1994-2000, when the HERMES estimates suggest that the recent expansion in fiscal policy is marginally bigger than the corresponding expansion in the 1977-1981 period. The predominantly expansionary budgets since 1994 have taken place against a backdrop of exceptionally high economic growth. Similarly, the contractionary fiscal policies of the 1980s coincided with a period of slow economic growth, well below the economy's potential growth rates.

Table 1.3 shows the annual average GNP growth rate and changes in unemployment along with cumulative fiscal stance under each of the measures. This indicates a mostly pro-cyclical trend in discretionary fiscal policy over the last two decades, the exception being the 1987-1993 period of counter-cyclical fiscal policy. All measures suggest that the 1977-1986 sub-periods were pro-cyclical, expansionary in the first part and contractionary from 1982 onwards. All measures suggest that 1987-1993 was a counter-cyclical period of contractionary fiscal policy, with the exception of the SVAR in the 1987-1989 sub-period and the Blanchard indicator between 1990-1993. The production function and trend smoothing methods suggest that the 1994-2000 period has been neutral to counter-cyclical while the HERMES method suggest pro-cyclicality in this time frame.

Table 1.3: Cyclicality in Irish Fiscal Stance Measures

	GNP Growth	Unemploy-ment Rate	HERMES	Hodrick Prescott	Production Function	Blanchard	SVAR
	Percentage Change		Cumulated as Percentage of GDP				
1977-1981	3.56	0.18	0.71	2.04	1.30	2.03	6.34
1982-1986	-0.10	1.50	-0.40	-1.47	-1.21	-1.33	-3.48
1987-1989	3.95	-0.60	-1.44	-3.22	-2.46	-2.48	1.95
1990-1993	3.07	0.26	-0.32	-0.25	-0.39	1.12	-2.35
1994-2000	7.21	-1.75	1.91	-0.45	-0.33	0.94	1.23

Pro-cyclical fiscal policy in general has also been found by other researchers, such as Lane (1998, 2000) and Bradley *et al.* (1997). This pro-cyclicality in discretionary fiscal policy contrasts with the orthodox view. This would call for a neutral position for the structural budget balance over the cycle. Together with the automatic stabilisers this would result in counter-cyclical fiscal policy which would act as a stabilising force on the economy, being expansionary in downturns and contractionary in upswings. In the next section we examine whether pro-cyclical fiscal policy is a cause for concern and what does it imply for the appropriate fiscal stance in Budget 2001.

1.5 Appropriate Stance for Budget 2001

As previous sections have demonstrated, it is nearly as difficult *ex post* to determine what fiscal stance has been as it is *ex ante* to determine what it should be. The measures of fiscal stance estimated in Section 1.4 indicate pro-cyclicality in recent Irish budgetary policy. This may seem in hindsight to have been the appropriate stance for fiscal policy particularly in the 1990s given the success of the economy over the last seven years. It runs contrary, however, to conventional economic advice that governments should set fiscal policy to "lean against the wind" of above trend economic growth. The danger is that with strong growth, what turns out in retrospect to be bad policies pursued in good times can leave a legacy that hampers future economic policy options. The lesson from Irish fiscal policy from the late 1970s is a cautionary reminder, when the extent of current expenditure gave rise to sustainability concerns for the national debt during the 1980s.

In framing Budget 2001, the government undoubtedly will have a set of microeconomic reforms and initiatives to pursue on topics such as childcare provision, educational and labour market interventions and so on. While these detailed changes within a budget are crucial in determining its overall impact, fiscal stance as conventionally measured focuses on a broad aggregate such as the general government balance. Factors that determine the appropriateness of fiscal stance include the state of the public finances, the position within the economic cycle and the economy's stage of development. Unlike the 1980s the state of the public finances are no longer the sole determinant of budgetary stance. The public finances have never been in a better position with the general government budget surplus expected to be in excess of 3 per cent of GDP in 2000. The primary macroeconomic consideration within the forthcoming Budget is how large should the surpluses be given the strength of the economy. The pro-cyclicality in recent budgets, as indicated by the incremental fiscal stance measures, suggest that surpluses would even be higher than currently observed if neutral structural budgets were pursued.

The appropriate size of a country's fiscal surplus is attracting considerable attention internationally. The United States is likely to run substantial surpluses for some time while European countries like Britain and Germany are likely to run temporary surpluses as a result of windfall gains from auctions of third generation mobile phone licences. Debates on whether to use the proceeds to payoff national debt or to use the surplus to fund tax reductions abound. Lane (1999) considers what to do with the surpluses in the Irish context. The appropriate decision depends on the circumstances of the economy. A range of arguments can be used to justify fiscal surpluses (Hemmings and Daniel, 1995). The rationale for surpluses may result from the government pursuing a stabilisation role in the economy to meet inflation objectives or to slow the growth in demand in the economy.[6] One allocative role for government encouraging the need for fiscal surpluses involves inter-generational transfers in pension

[6] Other factors justifying running budget surpluses, which would seem to have little resonance for the current position of the Irish economy, include balance of payments objectives; unsustainable debt levels and/or heavy dependence on foreign grants, natural resources and privatisation receipts.

payments. The decision to use the receipts from recent privatisations and to allocate one per cent of GNP to the pre-funding of future pension liabilities is predicated on general government surpluses being run for another thirty years on the back of favourable demographic projections for Ireland over that time period.

In the shorter term, the focus of Budget 2001 is likely to be on the stabilisation role of fiscal policy to meet inflation objectives, particularly those underpinning the PPF agreement, but it should also be directed at steering growth rates in the economy towards more sustainable rates. These need not be mutually exclusive objectives since inflation results from excess demand, or "too much money chasing too few goods", so the textbook response is for the budget to reduce aggregate demand in the economy by contractionary policies.[7] Contractionary fiscal policies would involve a combination of expenditure cuts and/or taxation increases. Both of these options are limited considerably by expenditure commitments under the NDP and personal tax reductions promised both within the PPF and the government's election manifestos and by the gradual scaling back of corporation taxes. These commitments will impart an expansionary tilt to budgetary policy but contractionary policy actions may neither be effective nor desirable, leaving aside their political feasibility.

The desirability of using fiscal policies to tackle inflation pressures and to slow economic growth in the economy needs to be considered. As a small open economy, within a large monetary union the inflationary process in Ireland is largely, though not exclusively, determined by external factors. Budgetary changes in administered prices, such as the rise in tobacco duties last year, can impact on measured inflation but by their nature have temporary impacts. The widespread attention given to the role of the tobacco duty increase in the rise of the consumer price index (CPI) this year, it is predictable that Budget 2001 will be framed with a view to ensuring a downward move in the CPI inflation measure. This manipulation of the CPI is expected to occur through a range of indirect tax adjustments. Manipulating the measure of inflation is no substitute for tackling the underlying cause of inflation that results from a mismatch between aggregate demand and supply. The conventional advice within an economic cycle is to dampen demand but where an economy is moving between stages of development, increasing aggregate supply significantly might be the more appropriate response to tackling inflation pressures in the medium term.

Whatever about the desirability of fiscal stance, a crucial consideration is how effective can fiscal policy be in influencing aggregate demand in a small, open economy. The IMF (2000) estimates that the fiscal multiplier for Ireland is within the range 0.6 to 1.0. This implies that in order to reduce aggregate demand significantly, substantial expenditure cuts and/or increased levels of taxation would be required. In the context of EMU, the absence of independent monetary policy places a greater burden on fiscal policy. The appropriate fiscal stance hinges on the dilemma of deciding

[7] In a recent paper by Ljungqvist and Uhlig (2000) it is shown that the optimal tax policy in a productivity-shock driven economy where consumers have "catching-up with the Joneses" utility functions is to use pro-cyclical movements in taxes to offset the cycle.

whether the Irish economy is in a conventional economic cycle of a developed economy or is it in a transition between stages of development.

If the economy is considered to be moving through a conventional economic cycle, then in the context of loose monetary and exchange rate policies and close to full employment, the recommended fiscal policy response in tackling inflationary pressures and slowing the economy would be contractionary. In contrast, where the economy is considered to be in an exceptional phase moving between different growth paths, increasing the productive capacity calls for supply side fiscal responses that are expansionary in nature. These measures include those proposed under the NDP to improve the economy's infrastructure and the personal taxation changes within the PPF to encourage greater labour market participation. Most foreign commentators seem to view the economy as overheating within a conventional economic cycle paradigm, whereas most domestic commentators seem to view the economy as being in transition to a higher growth path brought about by structural change in the sectoral composition of the economy (Cronin and McCoy, 2000).

In the context of the tension between these views our recommended stance for Budget 2001 would take a middle ground in calling for a broadly neutral budgetary policy position. This consists of a moderately expansionary structural budget, reflecting the spending commitments on investment in the NDP, offset by the automatic stabilisers arising from the high growth forecast for 2001. The personal taxation commitments agreed under the PPF should be honoured within the lifetime of the thirty-three month agreement but should be postponed until the later stages so as not to fuel inflationary pressures through higher disposable incomes. Indirect tax and expenditure adjustments in an effort to manipulate the CPI should be offset by widening the tax base through greater application of user fees and charges on publicly provided goods and services.

1.6 Conclusions

This paper analysed the stance of Irish fiscal policy over the last twenty-five years using a number of alternative measures and found it in general to be pro-cyclical over the period. This indicates that fiscal policy is expansionary in economic upswings though some differences exist between the measures as to the magnitude of the fiscal stance. The main divergence between the measures occurs during the last seven years in the "Celtic Tiger" phase. The traditional gaps and elasticities approach, favoured by international organisations in assessing fiscal stance, find that budgetary policy in Ireland has been slightly contractionary or broadly neutral during this period. In contrast the method favoured in this paper is an indexed measure of discretionary budget changes which suggest that the most recent period has been one of expansionary fiscal policy. The divergence seems to result in the main from estimates of high potential growth for the Irish economy used by the international organisations such as the EU Commission, the IMF and the OECD. Using more moderate potential growth rates, which we would consider sustainable, would lead to

a concurrence between the approaches on the expansionary nature of recent budgets.

Formulation of budgetary policy is never an easy task. As the economy continues in its exceptional growth phase and the public finances seem to improve unremittingly, the task of allocating budgetary resources becomes even more difficult. The plethora of measures available on fiscal stance have not been consistent in determining the impact of budgetary policy in the past nor do they provide a clear view for the future. Within this context the correct fiscal policy is far from clear-cut for a small, open economy within a large monetary union, experiencing close to full employment conditions.

The stabilisation role of fiscal policy in achieving inflation and sustainable growth objectives is difficult to achieve. The stance depends on whether the economy is considered to be operating with an economic cycle or in a period of transition. Within a cycle the stance would be contractionary to counter the impact of rising inflation and in an effort to diminish rapid economic growth. In a transition the appropriate stance is probably expansionary, directed at increasing the economy's productive capacity through supply side measures. The recommended stance for Budget 2001 in this paper leans more to the economy in transition view encouraging the adherence to the expenditure outlined in the National Development Plan. In keeping with our analysis in successive *Quarterly Economic Commentaries*, budgetary policy on the taxation front should be tighter this year and next than it has been for much of the latter half of the 1990s. We are not calling for an indefinite deferment of taxation commitments under the Programme for Prosperity and Fairness but rather a postponement until the economy begins to slow towards more sustainable rates.

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APPENDIX: ESTIMATION OF FISCAL STANCE MEASURES

A1.1 Gaps and Elasticities Approach

Production Function Measure

This is based on the methodology adopted by the OECD (see Giorno *et al.* (1995)). The first stage involves estimation of a simple two-factor Cobb-Douglas production function using sample average labour shares. The residuals from this give estimates of total factor productivity. Estimates of

potential output can then be retrieved from this production function, by combining trend measures of total factor productivity with the actual capital stock and an estimate of potential or full employment. Trend total factor productivity is estimated using a nine-period moving average of actual productivity.

The main difficulty with this approach lies in estimating the NAIRU. Identifying full employment in any economy is difficult, however this difficulty is compounded in a highly open labour market such as Ireland's (Kenny, 1996). Therefore this estimate is subject to much uncertainty. Consequently, a range of possible full employment estimates are used in order to test the sensitivity of potential output to changes in this crucial variable.

The production function is estimated as follows. Define output (Y) as GDP at factor cost in the industrial and marketed services sectors. The number of persons employed (L), and capital stock levels (K), in market services and industry, are weighted according to their sample shares in output (α, and $(1-\alpha)$). The difference between actual output (Y) and these weighted factor inputs gives an estimate of total factor productivity (E).

$$y = \alpha l + (1 - \alpha) k + e$$

where

Y	=	business sector value added in real terms
L	=	business sector labour input
K	=	business sector capital input
E	=	total factor productivity
α	=	sample average labour share

Lower case letters denote logarithms. The next step is to estimate the level of full employment or potential employment in the business sector (L*). In order to do this an estimate of the non-accelerating inflation rate of unemployment (NAIRU) was derived, using a formula applied by the OECD.[8]

$$L^* = LFS^* (1 - NAIRU) - LG - LAG$$

where

LFS^*	=	smoothed labour force[9]
NAIRU	=	non-accelerating inflation rate of unemployment
LG	=	employment in government sector
LAG	=	employment in agriculture

The estimated total factor productivity was smoothed using a nine period moving average to derive an estimate of trend productivity (e*). Then by substituting in the actual capital stock (k), the calculated full employment level of labour (l*) and estimated trend productivity (e*) into

[8] The OECD derive estimates of the non-accelerating inflation rate of unemployment (NAIRU) by assuming that changes in wage inflation are proportional to the difference between actual unemployment and the NAIRU.

[9] Calculated as the product of the working age population and a nine-period moving average of the participation rate.

the production function, an estimate of potential output in the business sector (y*) can be derived:

$$y^* = \alpha l^* + (1 - \alpha) k + e^*$$

where

L^*	=	potential level of employment in the business
	=	sector
Y^*	=	potential level of output in the business sector
K	=	capital stock in the business sector, assumed equal to its potential level
E^*	=	trend total factor productivity

The economy's overall potential level of output is computed by adding the actual level of value added in the public sector and agriculture to Y*, to get potential output in the economy, GDP*. The ratio of GDP* to actual GDP is the estimated output gap with the economy deemed to be growing at trend when the ratio is equal to one.

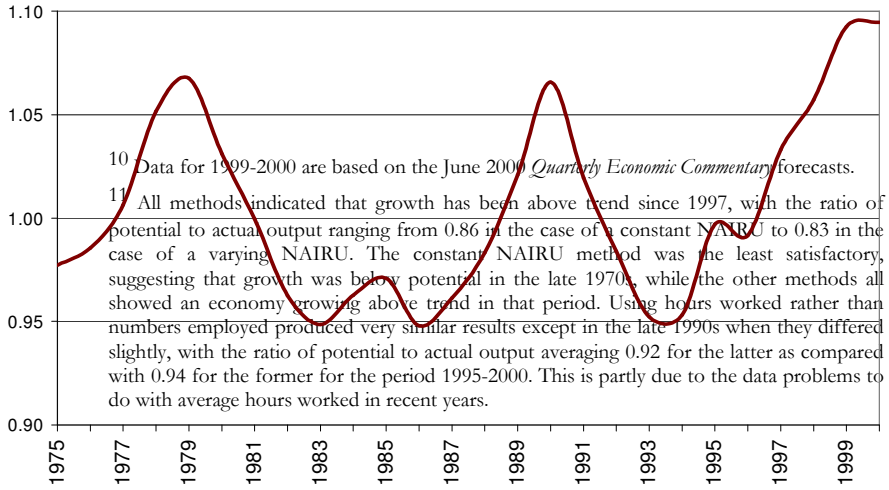
GDP* = Y* + YGOVT + YAGRIC

Where

GDP*	=	estimated trend GDP
Y*	=	estimated trend output in the business sector
YGOVT	=	output in the government sector
YAGRIC	=	output in the agricultural sector

This production function equation was estimated for the period 1975-2000.[10] A number of variants of Y^* were estimated, by first allowing the respective labour and capital shares to vary over time; second, by assuming a constant NAIRU of 3.5 per cent; and finally by using annual hours worked rather than numbers employed for L. These different approaches yielded similar results.[11] We proceeded using numbers employed, a varying NAIRU and a constant labour share, an identical formulation to the OECD method.

Figure A1.1: Output Gap Estimated Using Production Function Ratio of Actual to Potential Output



[10] Data for 1999-2000 are based on the June 2000 *Quarterly Economic Commentary* forecasts.

[11] All methods indicated that growth has been above trend since 1997, with the ratio of potential to actual output ranging from 0.86 in the case of a constant NAIRU to 0.83 in the case of a varying NAIRU. The constant NAIRU method was the least satisfactory, suggesting that growth was below potential in the late 1970s, while the other methods all showed an economy growing above trend in that period. Using hours worked rather than numbers employed produced very similar results except in the late 1990s when they differed slightly, with the ratio of potential to actual output averaging 0.92 for the latter as compared with 0.94 for the former for the period 1995-2000. This is partly due to the data problems to do with average hours worked in recent years.

The estimated output gap as shown in Figure A1.1 is greater than one in the 1977-1980 period, indicating that the economy was growing above trend. The gap was less than one throughout much of the 1980s, troughing in 1986, reflecting the very depressed economic environment at the time. In the 1990s, this pattern was reversed with the ratio of actual to potential output rising above one in 1997, indicating that the economy was once again growing above trend. This increase has continued in recent years suggesting that current levels of growth are well above potential or trend growth.

This estimated output gap is used to compute the cyclically adjusted budget balance. Using disaggregated data on revenue and expenditure, the cyclical component of revenue and expenditure is calculated as follows:

$$R_i^* = R_i \cdot \left(\frac{GDP^*}{GDP} \right)^{ZR_i} \quad ; \quad GTR^* = GTR \cdot \left(\frac{GDP^*}{GDP} \right)^{ZG_{TR}}$$

where R_i^* = structural government revenue for item i.
R_i = actual government revenue for item i.
GTR^* = structural government expenditure on transfers.
GTR^* = actual government expenditure on transfers.
ZR_I = elasticity of revenue item i with respect to changes in GDP.
ZG_{TR} = elasticity of transfers with respect to changes in GDP.

The elasticities of the various expenditure and revenue items with respect to GDP[12] were taken from published OECD (Giorno *et al.*,1995) and Department of Finance (1998) calculations and are shown below. The most notable difference between the two estimates is the corporate tax elasticity which is much higher in the OECD calculations, although this has been revised downwards in more recent work.[13] For non-tax revenues we assume full indexation and apply an elasticity of 1. We apply the OECD elasticity for personal transfers in both cases.

	OECD	Department of Finance
Indirect Taxes	1.0	1.3
Corporate Taxes	2.5	1.5
Personal Income Taxes	1.3	1.3
Social Security Contributions	0.5	0.6
Personal Transfers	-0.5	

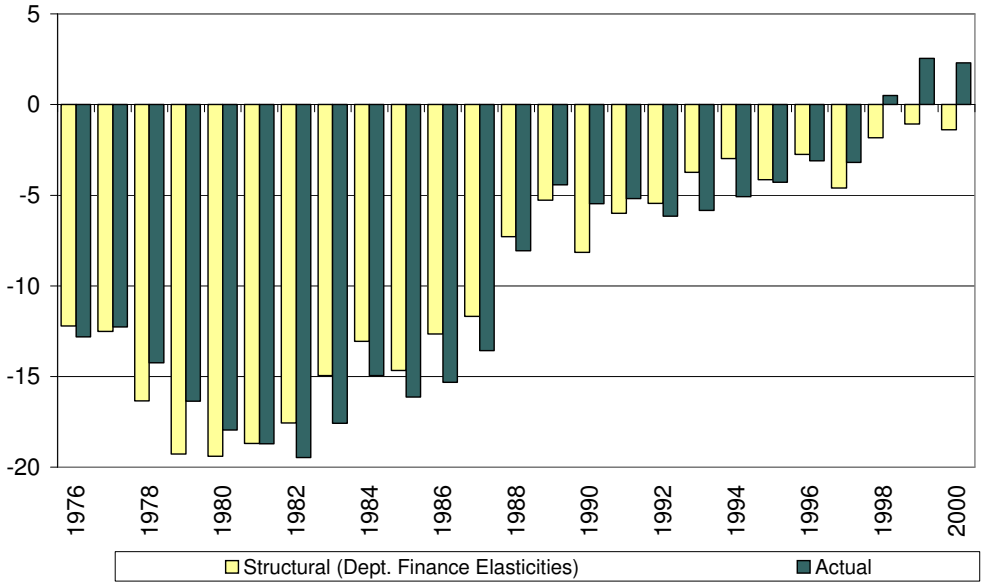
A tax elasticity greater than one indicates the presence of fiscal drag in the taxation system. The progressivity of personal income tax is reflected in the elasticity of 1.3, while the social security elasticity is less than one

[12] In all cases elasticities are computed with respect to GDP. Therefore, we compute all estimates of the output gap in GDP terms.

[13] Using the more recent elasticity estimates (OECD, 2000) significantly altered the *level* of the estimated structural budget balances in recent years, however the implied *direction* of fiscal policy, as measured by the change in the CABB, was unchanged using these estimates.

because of the income ceiling on contributions. The Department of Finance and the European Commission estimate an average tax revenue elasticity of 1.1, indicating that there is an overall element of fiscal drag in the taxation system, so that in the absence of discrete fiscal policy changes, revenues as a share of GDP will rise over time. This means that the tax system is less than fully indexed.

Figure A1.2: Production Function Estimates of SBB (% of GDP)



The difference between structurally adjusted revenues and expenditure is the structurally adjusted budget balance. Figure A1.2 shows actual and estimated structural budget balances as a percentage of GDP[14] over the last twenty-five years, using both Department of Finance (1998) and OECD (1995) reported elasticity estimates. The structural balance has tended to fluctuate about the actual balance up until quite recently. Since 1997, however, a gap has opened up between the two measures, with the government continuing to run a small structural deficit despite the substantial actual surplus recorded.

Trend Smoothing Measure

Essentially the Hodrick-Prescott filter involves solving a constrained optimisation problem, of the form:

$$\sum_{t=1}^{T} (\ln Y_t - \ln Y_t^*)^2 + \lambda \sum_{t=2}^{T-1} [(\ln Y_{t+1}^* - \ln Y_t^*) - (\ln Y_t^* - \ln Y_{t-1}^*)]^2$$

where

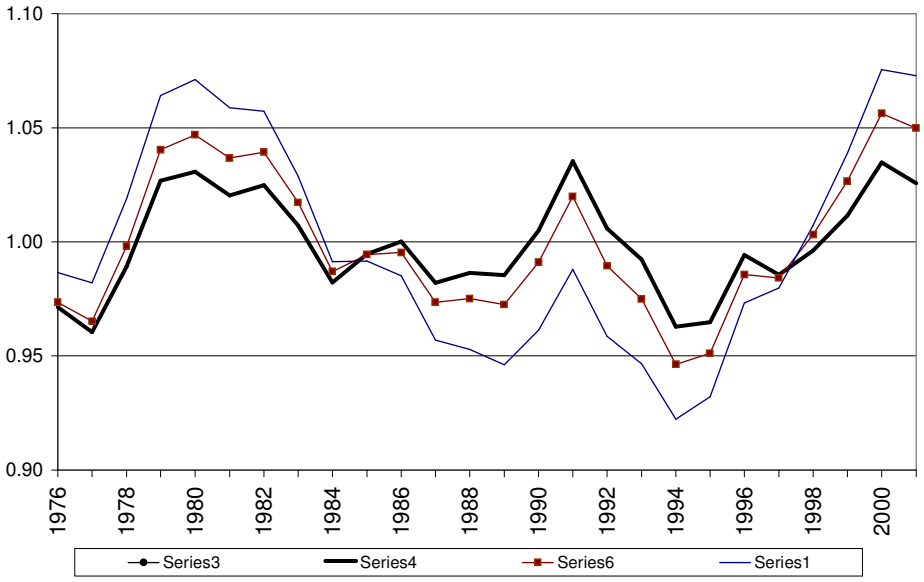
[14] Structural budget balances are expressed as a percentage of potential GDP.

Y	=	actual GDP
Y*	=	trend GDP
λ	=	Lagrange multiplier, "smoothness factor".

A weakness of this measure concerns the choice of the Lagrange multiplier λ in the constrained optimisation procedure. The lower λ is, the closer estimated trend output is to actual output. In effect λ determines how trend output behaves, with higher values of λ resulting in smoother series of trend GDP.

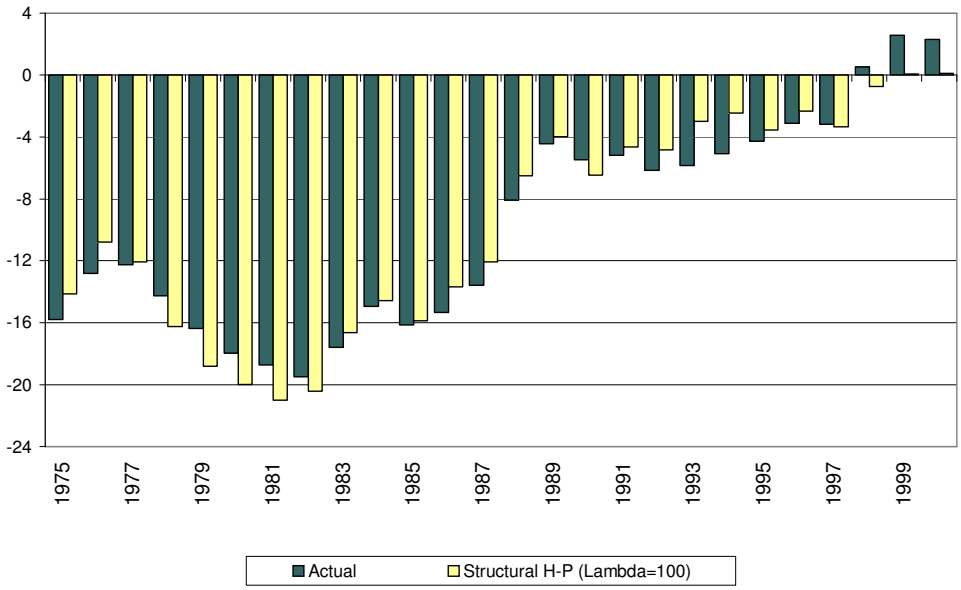
A Hodrick-Prescott (HP) filter was estimated for real GDP for the period 1975 out to 2006, using forecasts from the ESRI's *Medium-Term Review* to overcome the end-point problem. Three different values of the smoothing parameter λ were used: 25, the value used by the OECD in their application of the HP filter to Ireland, 100, the value used by the European Commission, and 500. The estimated output gaps showed a similar pattern to the production function estimates. The results showed that the economy operated above trend in the late 1970s up until about 1981, and again in recent years as can be seen from Figure A1.3. However the size of the estimated output gap is much smaller using the H-P filter, especially for the late 1990s.

Figure A1.3: Output Gap Estimated Using H-P Filter
Ratio of Actual to Potential Output



The estimated structurally adjusted budget balance, based on the H-P filter with λ set equal to 100 is shown in Figure A1.4 using exactly the same method as described above and using the OECD tax and expenditure elasticity estimates. Under this measure the structural deficit, which matched the actual deficit closely in the early period of the sample, disappeared in the late 1990s.

Figure A1.4: H-P filter Estimates of SBB (% of GDP)



The difference with the production function estimate of a large structural deficit in this period is due to the much smaller estimated output gap under the HP methodology. The production function measure, which is based on estimates of available labour and capital resources, suggests that in the last three years the output gap has widened to an unprecedented level. Such a divergence between actual and potential output would not be possible under the H-P filtering process since trend output is determined by actual output.

A1.2 Incremental Approach

HERMES Indexed Budget Measure

The derivation of an indexed budget using the HERMES macroeconomic model can be illustrated in a simplified example as follows. Define T as total revenue, GTR as cyclical expenditure and GO as non-cyclical expenditure, then the actual budget balance B in year t is:

$$B_t = T_t - GTR_t - GO_t$$

Define t as the average tax rate (T/Y), rtr as the average rate of cyclical expenditure (GTR/Y), rgo as the average rate of non-cyclical expenditure (GO/Y). Then the budget balance can be expressed as a function of average tax and expenditure rates, which are discretionary policy instruments, times the base Y, which is determined by the rate of economic growth:

$$B_t = t_t Y_t - rtr_t Y_t - rgo_t Y_t$$

Now define z_t as the actual growth rate in year t, Y_t / Y_{t-1}, and z^* as the trend growth rate. The budget balance indexed on the previous year's budget is then:

$$\tilde{B}_t = t_{t-1} Y_{t-1} . z_t - rtr_{t-1} Y_{t-1} . z_t - rgo_{t-1} Y_{t-1} . z^*_t$$

where $z_t . Y_{t-1} = Y_t$. With some manipulation this can be derived as:

$$\tilde{B}_t - B_t = -\left(\Delta t_t - \Delta rtr_t - (rgo_t - rgo_{t-1} . \frac{z^*}{z}) \right) . Y_t$$

From the formula we can see that increases in average tax rates will tighten fiscal stance while increases in average transfer rates will loosen fiscal stance. The last term implies that if non-cyclical expenditure grows faster than trend, this will loosen fiscal stance.[15] Clearly offsetting policy changes on the expenditure and revenue sides will cancel out in this measure so that it cannot be used as an indicator of sustainability.

The main tax revenues are determined as the product of a tax "rate" by a "tax base":

$$T_{it} = t_{it} . BASE_{it}$$

For the purposes of indexation, there are nineteen separate revenue categories identified.[16] Indexation to the previous year's budget is then relatively straightforward to implement, by setting the tax rate equal to that of the previous year, as follows:

$$\tilde{T}_{it} = t_{it-1} . BASE_{it}$$

There are some exceptions to this rule built in to the model to ensure accurate indexation. For example, the *rate* of excise duty is indexed to the deflator of private consumption because excise duties are levied on volumes.

The Irish tax system is not fully indexed, the Department of Finance (1998) estimates that the aggregate tax elasticity in the economy is 1.1. This element of fiscal drag is eliminated by the use of average tax and expenditure rates which imply full indexation. This is an important point since the IMF (2000a) recently argued that the HERMES indexation rules do not allow for tax cuts designed to offset the effects of fiscal drag. This is not correct, indexation to average tax and expenditure rates has an in-

[15] This can be seen by rewriting this third term as follows:

$$rgo_t - rgo_{t-1} . \frac{z'}{z} = \frac{G_t - G_{t-1} . z'}{Y_t}$$

[16] These include expenditure taxes (VAT receipts, customs taxes, excise taxes, agricultural levies, motor vehicle duties, etc.) and income taxes (personal income taxes, social security contributions, corporate income taxes, DIRT taxes, agricultural income taxes, etc.).

built assumption that those tax cuts necessary to keep the average tax take constant are implemented in full.

The indexation of expenditure items is more complicated because not all items of expenditure are cyclical. For cyclical items the indexation rules used can be summarised as follows:

- Unemployment transfers, GTRU, are modelled as the product of an unemployment transfer "rate" ru, applied to the "base" of total numbers unemployed, U:

$$GTRU_t = ru_t . U_t$$

Because numbers employed is a volume base, the rate must be indexed to the appropriate price. In the HERMES model indexation of the rate of transfer payments uses a weighted average of the private consumption deflator and the average wage rate as the price term:

$$\tilde{GTRU}_t = ru_{t-1}.(\alpha\dot{P}_t + (1-\alpha)\dot{W}_t) . U_{it}$$

- Indexation of other personal transfers applies a similar price adjustment. In addition, because these transfers are mainly to the elderly (pensions) and the young (children's allowance) there is a volume adjustment based on the growth in the dependency rate (the proportion of the population over 65 and under 14 years of age).
- Transfers abroad, a separate item, are indexed to nominal GNP growth.
- Indexation of subsidy payments imposes a growth rate equal to the growth in the relevant subsidy base. For example, agricultural subsidies are assumed to grow at the same rate as agricultural output.

For non-cyclical expenditure items, volume indexation was applied using a trend volume growth rate, estimated using a nine-period centred moving average, multiplied by the actual price or wage change in that year. Indexed values of four categories of public investment, two categories of employment and public consumption were all computed on this basis.[17] This is an improvement on earlier estimates of the indexed budget (Duffy *et al.*, 1999) where non-cyclical expenditure was assumed to have no volume growth. Debt interest payments are not indexed. This is an oversimplification since the level of debt is a cumulation of past policy choices, however on a year-on-year basis it is a reasonable proxy.

Figure A1.5: HERMES Indexed Measure of Fiscal Stance (% of GDP)

[17] These are investment in public administration, health and education, local authority housing and roads, water supply and sewerage; employment in public administration, and health and education; and government's purchases of goods and services.

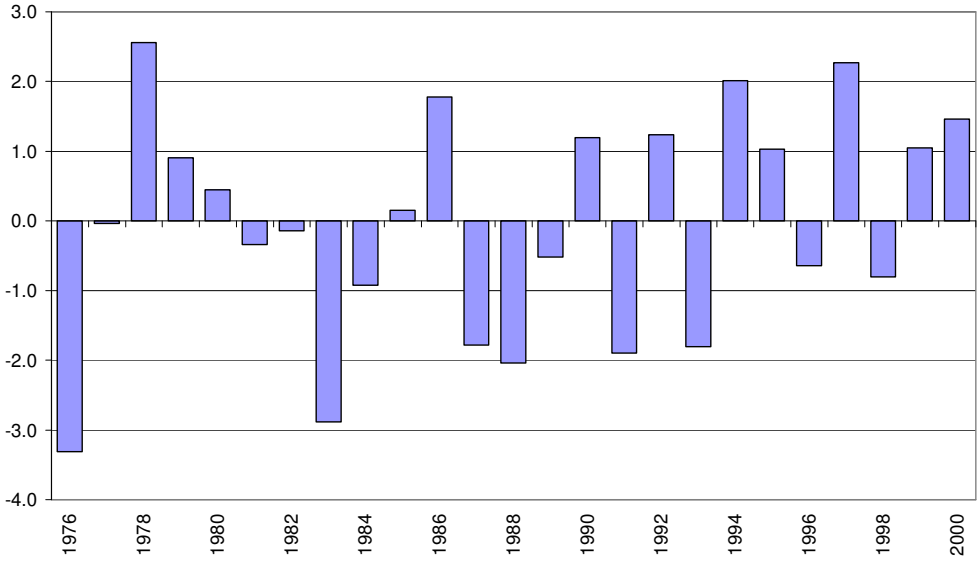


Figure A1.5 shows the estimated results over the period 1976-2000. These suggest that the 1978 and 1997 budgets were the most expansionary of the entire period. Based on this measure the current year (2000) budget was the fifth most expansionary. The 1976 budget was the most contractionary closely followed by the 1983 budget.

Blanchard's Indicator of Discretionary Change

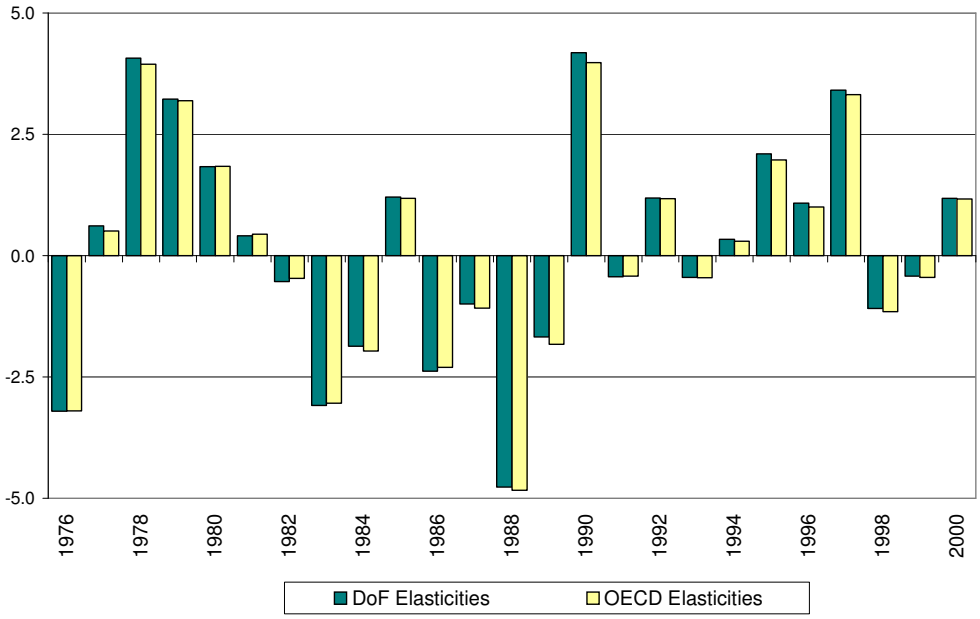
The most problematic conceptual issue in implementing this method for Ireland is the use of the Okun coefficient. The relationship between unemployment and output in Ireland is unstable, because of high migration flows (Honohan, 1999). To deal with this we used recently published estimates of the Okun coefficient from Walsh (1999) where he makes explicit adjustments for migration by including the UK unemployment rate in the basic Okun relationship. Walsh's estimate of the long-run Okun coefficient for GDP[18] is 4.4.

Figure A1.6 shows the estimated indicator of discretionary change[19] using the Blanchard method and the OECD and Department of Finance elasticities. The pattern is very similar to that estimated using the HERMES model, although the range of variation is wider. Once again the 2000 budget shows up as expansionary under this measure.

Figure A1.6: Blanchard Measure of Fiscal Stance (% of GDP)

[18] Walsh publishes estimates on GNP and GDP basis. We use his GDP estimates because all the published elasticities are on a GDP basis.

[19] For consistency with the HERMES indexed budget measure we have changed the sign of the indicator. Therefore a positive value indicates a loosening of fiscal policy and a negative value indicates a tightening of fiscal policy.



A1.3 SVAR Approach

Traditional VAR analysis is an attempt to *let the data speak for itself* by imposing a minimum amount of restrictions using multiple time series analysis. The VAR is set up so that all variables are estimated symmetrically with each equation containing the same number of regressors. Apart from using economic theory to decide on what variables to include the technique is considered atheoretic. The estimation is done in reduced form that requires a set of restrictions to allow for the underlying structural parameters to be identified. It is in the identification stage that structural VARs differ from reduced form VARs. SVAR impose identification restrictions based on economic theory rather than the atheoretic recursive restrictions imposed with reduced form VARs.

In order to examine fiscal stance, a two variable SVAR model can be formulated that decomposes fluctuations in the deficit to GDP ratio into those arising from output shocks and those arising from changes in the deficit itself. The output shocks are assumed to have permanent or long-term effects, while shocks to the deficit have transitory or short-term effects. An approach pioneered by Blanchard and Quah (1989) imposes a restriction on the long-term effect in order to achieve identification. In a two variable SVAR this provides the necessary one restriction.

The SVAR procedure, for the most part, tends to present a lower estimate (either expansionary or contractionary) of the SBB. This was the *a priori* expectation and part of the motivation for using the model. The exceptions to this are 1976, 1986 and, of especial interest, 1999. The expansionary nature of the 1999 budget is much lower than that predicted by the HERMES model. By contrast, the expansionary effects of the 1998 budget are much greater.

The cumulative effect over the period 1987-1989 gives an estimated expansion of the order of 2 per cent of GDP – thus not capturing the

fiscal consolidation in that period. This highlights the black-box nature of the SVAR, its over-sensitivity to small specification issues, and its inability to precisely estimate the relationships between the variables under consideration. This would explain the generally weak econometric estimates that the model gets. It may be the case that the model has not captured the major shift that took place in that period and so is applying a common estimate of the whole period when ideally, although data limitations do not allow it, the two periods should be estimated separately.

2. STRONG GROWTH AND ROBUST BUDGETS IN EUROPE: EMERGING TREND OR DEVELOPING CYCLE

Ray Barrell

2.1 Introduction

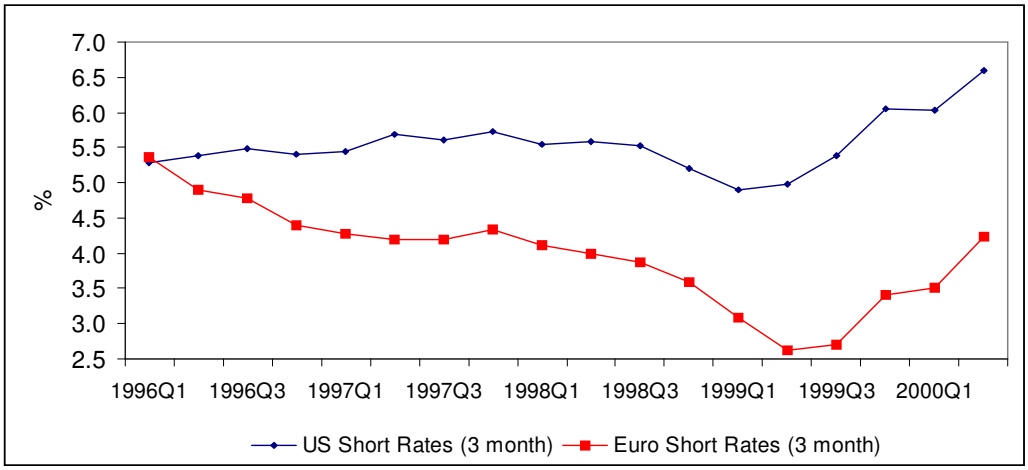
Growth in Europe has accelerated markedly in the last year, and budget deficits have improved. At the same time inflation has remained low, with some tensions only in countries such as Ireland, Finland and Spain. The US has seen sustained strong growth for five years with low inflation and low unemployment, and it is becoming increasingly clear that there have been structural changes in the way the economy operates. Stronger underlying growth and lower unemployment have contributed to the fiscal improvement that the US has seen in the last five years. The improvement in performance in Europe that we have seen could be because of the later arrival of US style productivity improvements and their impact on the economy. In this paper we first assess the nature of change in the US and compare the situation with that in Europe. We then go on to look at the causes and consequences of the weak euro.

After we have completed these tasks in the first and second sections we then go on to evaluate the causes of the unexpectedly rapid growth in Europe over the last year. In particular we analyse the effects of stronger external demand, driven by high external growth and by the effects of a potentially expansionary fall in the euro, on the economies of Europe and on their budget deficits. We next look at fiscal policy changes in Europe over the last year where there has been a widespread series of innovations based on the assumption that increases in revenue have been in part structural, and not just the result of stronger underlying output growth. We conclude with a discussion of short-and medium-term policy options for the euro area.

2.2 Strong Growth in Europe and North America

Developments in individual European economies have to be evaluated in light of developments in the world economy. World GDP growth slowed from 4.6 per cent in 1996 to 2.5 per cent in 1998, in large part because of the consequences of the East Asian crisis. The slowdown in activity was associated with a fall in real interest rates in the OECD that resulted in part from the reversal of capital flows to the developing countries, and especially the crisis-hit countries in East Asia. The fall in real interest rates helped boost asset prices and partly offset the effects of the East Asian slowdown. However, the financial system was clearly fragile, especially in the US, because of the implications for balance sheets of losses incurred in East Asia and elsewhere. The collapse of the rouble in the summer of 1998 exacerbated this crisis, and the US Federal Reserve felt obliged to cut rates significantly in the autumn of 1998, as can be seen from Figure 2.1. Even though, as graph shows rates have subsequently risen, there was a significant monetary loosening.

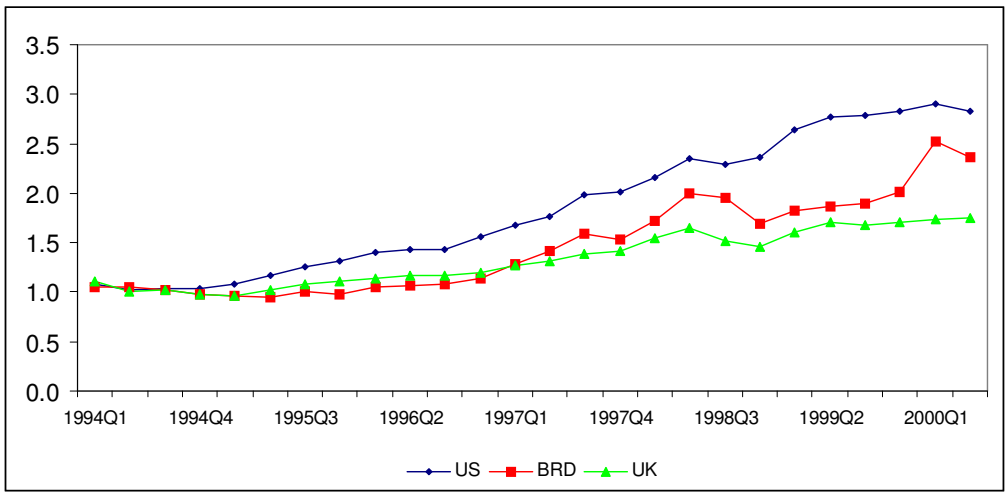
Figure 2.1: Interest Rates in Europe and the US



World demand rose as a consequence of the loosening of monetary policy, but internal dynamism in the US and in East Asia have also added to the growth of demand. The East Asian crisis has been, for some people at least, surprisingly ephemeral, and the economies of the region have recovered rapidly, partly because they devalued significantly. If the crisis had just been one associated with overvaluation then, indeed, we might have expected it to raise world demand, and it appears to have done so. A devaluation is a change in relative prices. One group of countries finds its exports have become cheaper and its imports more expensive, and another group finds the reverse. If those devaluing have the more flexible economies, so that domestic demand responds more quickly to the external impulse than in those revaluing, then world output could temporarily rise. We may have been seeing some elements of this in the last two years, but there has also been strong growth in the US, which appreciated, and other factors may be at work there.

US output growth has been accelerating over the last five years, and between 1996 and 1999 it averaged in excess of 4 per cent, well above the generally accepted range for potential output growth. Asset prices were strong, as can be seen from Figure 2.2, and this boosted consumption. This increase came in part from the fall in real interest rates, but this was common throughout the OECD, but the rise in US asset prices exceeded that seen elsewhere. This in turn probably reflects the perception that the possibilities for growth in the US have significantly improved as a result of an increase in the rate of technical progress. The US cycle is now the longest upturn on record, and normally at this point we might expect to see either a slowdown in productivity growth or a significant upturn in wage pressures, but neither are particularly visible.

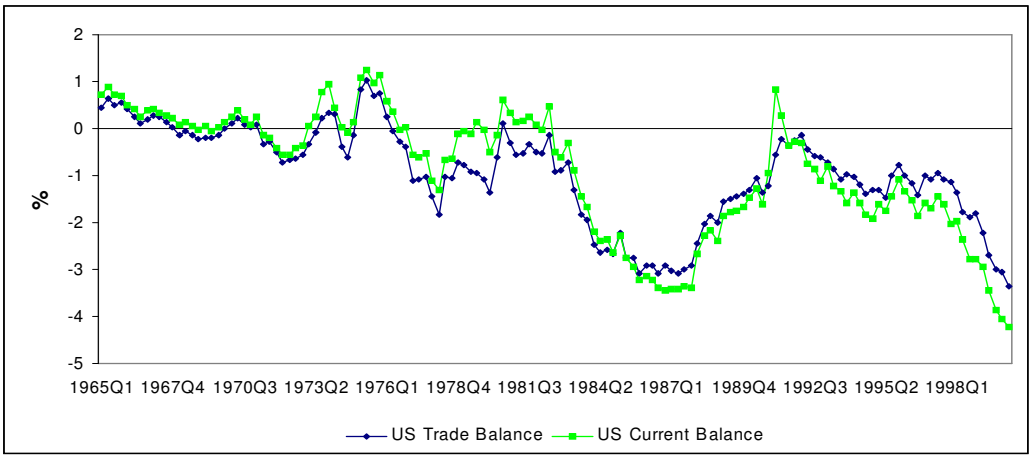
Figure 2.2: Real Equity Prices in Europe and the US



It is now widely believed that new technologies have significantly increased the potential growth of the US economy. Indeed, something has happened. Using the 1999 revised accounts, produced on a new set of definitions, there has been a significant increase in both labour and capital productivity. Between 1976 and 1995 labour productivity grew at an average annual rate of 1.3 per cent whilst capital productivity grew at 0.6 per cent a year. From 1995 to 1999 productivity growth doubled to 2.3 per cent a year for labour and 1.3 per cent a year for capital. Some of the increase in labour productivity is the result of the increase in the capital stock, which, at around 14 per cent between 1996 and 1999, has been particularly rapid over this period. However, in a period of rapid capital accumulation one might expect its productivity to rise slowly, and this has not happened. Both capital and labour have been benefiting from other factors over the last five years. The computer sector in particular, in which the US has a relative specialisation, has been adding 0.2 per cent a year to total factor productivity directly because of changes in its technology and its prices. However, the effects of the revolution have clearly begun to spread elsewhere in the US economy, and OECD estimates suggest that it could have raised labour productivity growth by 0.6 per cent a year over the last five years. There have also been changes in the operation of the US

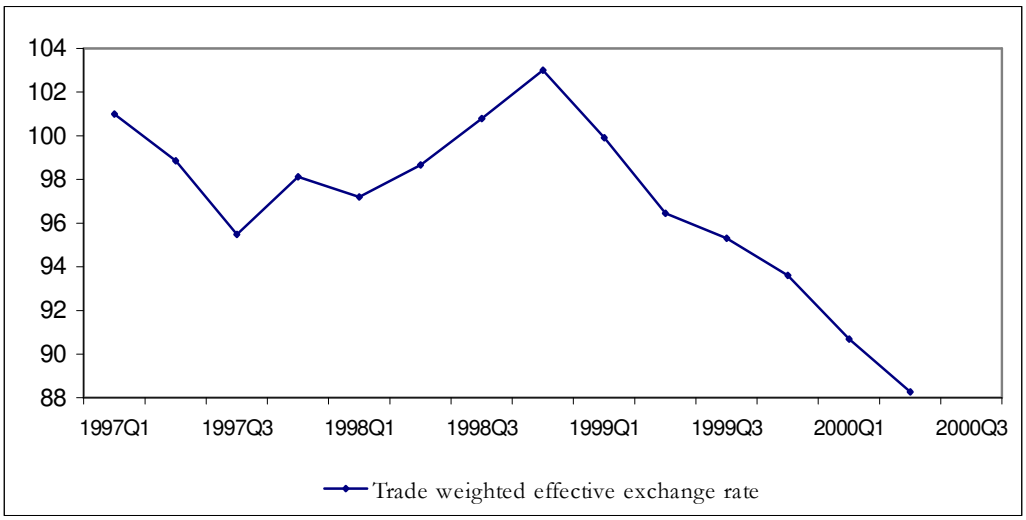
labour market, both because of changing age structures and because of computer aided "just-in-time" labour management developments based on temporary employment that have meant the sustainable level of unemployment has now probably fallen below 5 per cent of the workforce. As a result of all these forces US capacity growth is now probably around 3.5 per cent, well above its historical average.

Figure 2.3: The US Current Account and Trade Deficit (as a % of GDP)



US demand has been rising rapidly, buoyed up by consumption and by investment. Real incomes have been growing as a result of strong labour demand growth, and wealth has risen because of the strength of the equity market. As a result consumption growth has been strong, and imports have been high. The dollar has also been strong, and as a result of these factors the US has the largest balance of payments deficit of the last 40 years, as can be seen from Figure 2.3. This strong growth has fed into world demand, and has boosted growth in Europe. Indeed, growth in the US this year looks as if it will exceed 5 per cent, well above expectations at the start of the year, and the US has probably had 1 per cent extra, that is unanticipated, growth a year for the previous few years. Simulations on our model of a 1 per cent increase in US demand suggest that it would raise the growth of the euro area by 0.33 per cent in the first year, albeit with a lag behind the increase in the US. It would worsen the US current account by 0.2 per cent of GDP whilst strengthening of the euro area by 0.1 per cent of GDP. Given that the "excess" (or unanticipated) growth of the US since the start of 1999 is likely to have been around 3 per cent we might expect the strength of the US economy to have added around 1 per cent to euro area growth over the last year. Given the worsening of the US current account over the last two years, the impact on Europe could be much larger, and it may well have also come through the impact of the appreciation of the dollar on US competitiveness.

Figure 2.4: Euro Area Exchange Rate



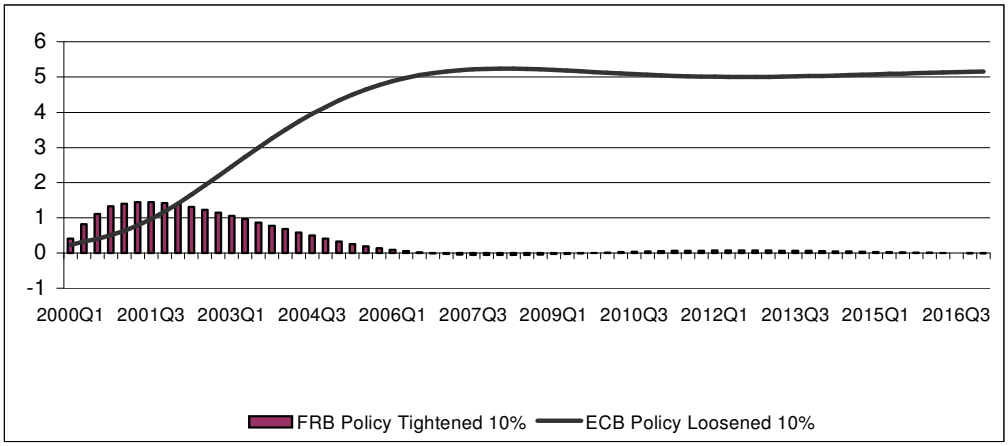
The euro zone economy has grown rapidly in the last year, and is approaching the full use of capacity. Growth accelerated from 2.3 per cent in 1999 to an anticipated 3.6 per cent in 2000. There are few signs of an internal dynamic driving growth. Private investment growth appears to be slowing, and unemployment is likely to fall only to an average of 9 per cent this year. The strong performance has been almost entirely fuelled by external demand, and domestic demand growth is expected to fall from 2.9 per cent in 1999 to 2.7 per cent in 2000.

The effects on euro area exports of strong activity growth in the US and East Asia has been reinforced by the effects of significantly improved competitiveness. This improvement is the result of the fall of more than 20 per cent in the euro/US dollar exchange rate over the last twenty months, as can be seen in Figure 2.4. The effects of the fall in the exchange rate depend upon the reasons for the fall, and we discuss these further below. However, some of the observed fall can be seen as unexplained by fundamentals, and we can analyse the effects of a permanent 5 per cent fall in the euro that would result from a perceived change in monetary policy. As can be seen from the Figure, a move of this sort would raise inflation by 1 per cent a year for five years or so, and would increase output by 1 per cent after a year. There would, of course be no long run effects on output and inflation as the move is just a change in a nominal magnitude. However, the effects are persistent, as can be seen from Figure 2.5.

Given the fall in the euro we have observed it is not surprising that inflation has risen sharply during the year, although this has been driven in part by strong oil prices. The high level of demand has not yet begun to affect wage settlements in the core economies. However, we would expect that the recent fall in the euro from around parity to 90 cents to the dollar will feed through to inflation, holding it higher than it would otherwise have been unless the European Central Bank (ECB) reacts by raising interest rates significantly. Hence there is a strong argument to be made for a rise in rates, because the harmonised consumer price index for the euro area is already increasing at 2.4 per cent, and similar rates are likely to be

sustained over the next year unless there is some reaction. Of course, it can be argued that core inflation is well below this level, and the increase is temporary. However, if the ECB takes seriously the importance of price stability in the medium term, then an increase in the price level caused by a relative price change such as a rise in oil prices cannot be ignored. In the medium term its impacts have to be removed, and hence there may be a case for doing this quickly as the economy is operating near full capacity.

Figure 2.5: Euroland Output and Prices: The Effects of a Permanent 5 per cent Change in the Euro



There is little reason to suppose that Europe may be about to enter the virtuous circle that the US has experienced over the last five years, although capacity output should be able to expand more rapidly than in the recent past. The process of integration through the Single Market Programme should increase the potential capacity of the European Union economies. Increased competition and deregulation increases efficiency and output. Labour market reforms should also reduce unemployment and raise the potential level of output. These changes should raise potential growth above the recent underlying level of 2.5 per cent to around 2.8 per cent over the next five years. The effects of reforms will take some years to be seen fully. However, there is little evidence that the euro area economies will see US style technology-based improvements in productivity performance, in part because of the lower levels of computer utilisation in the constituent economies of the euro area.

2.3 The Causes and Consequences of the Weak Euro

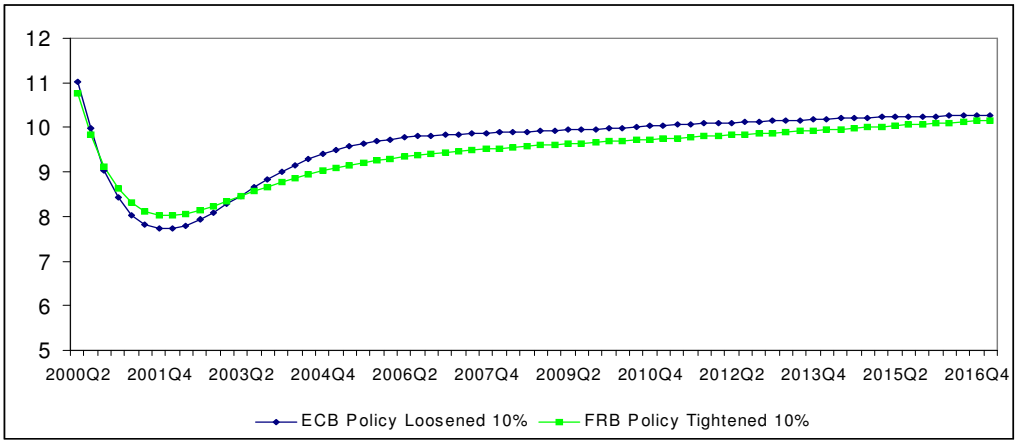
The first twenty months of EMU have seen the emergence of inflationary pressures and divergences in growth and inflation between the core and the periphery. There are inflationary pressures developing, but these should not be confused with the increase in inflation we have seen in countries such as Finland, Spain and Ireland. There are signs that these economies are overheating, with inflation expected to be 2.6, 2.9 and 5.0 per cent respectively in 2000 as compared to a euro area average of 2.2 per cent. This is a sign of convergence, as these economies entered the monetary union undervalued. As a result there is traded sector led pressure

on capacity, and this will continue to raise their relative inflation levels until their competitive advantage is worn away. We foresee that their inflation differential against the other member countries will decline, and will average 0.1 to 0.2 per cent a year between 2002 and 2006.

The fall of the euro exchange rate from inception to 0.90 now is in part the result of perceived strengths in the US, and partly perceived problems in Europe. The ECB has to discern the inflationary consequences of the fall. If the US had seen tighter monetary policy, with lower expected inflation and a higher dollar, then there would be no long-term inflationary consequences for the euro area. There would also be no long- term inflationary consequences for the euro area if new technology induced product improvement in the US had driven up the dollar. Both these forces have been at work over the last twenty months, and much of the fall in the euro can be attributed to them with no inflationary consequences.

In addition, improvements in the operation of labour markets without an increase in the quality and variety of goods being produced could cause a sustained and non-inflationary fall in the exchange rate. We live in an imperfectly competitive world and if a greater volume of the same range of goods is to be produced then their relative prices have to fall. This can be managed either through labour market reform induced deflation or through a fall in the exchange rate brought about by rational markets perceiving the implications of emerging labour market reforms. Of course these elements could be part of the explanation of the weakness of the euro over the first twenty months of its existence, and we should not discount them as part of our explanation.

Figure 2.6: The Effects of US and European Monetary Policy on the Euro

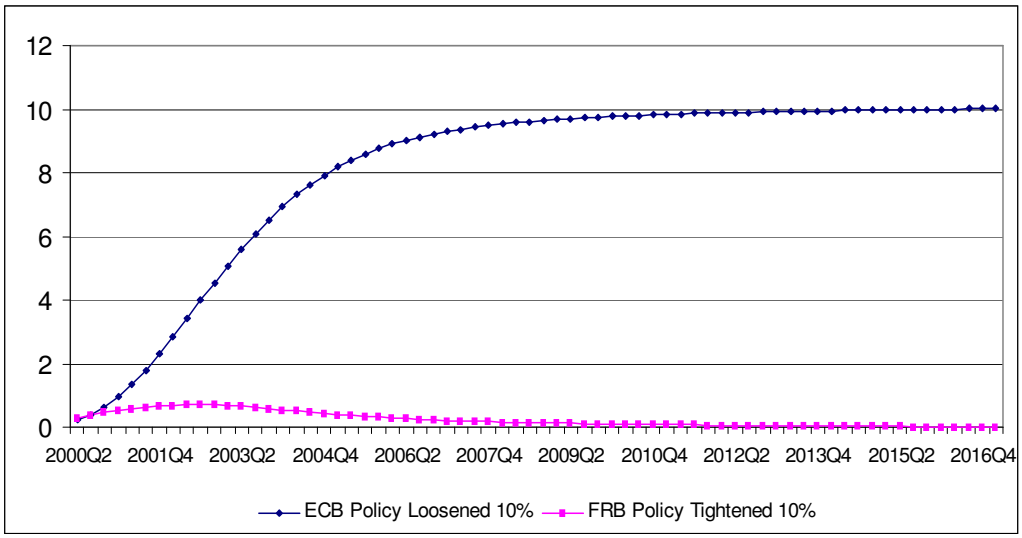


We may easily analyse the difference between a fall in the euro caused by a perceived tightening of monetary policy in the US as against a perceived loosing of monetary policy in Europe. In order to make the comparison rigorous we assume that both the Federal Reserve in the US and the ECB in Europe have the same mixed targeting regime. They adopt the same feedback coefficients in a rule where they take account of inflation developments in the short term and target a broad nominal aggregate that depends on the GDP deflator in the medium term. In the

US case we shift the nominal target down by 10 per cent, whilst in the European case we increase it by 10 per cent. As can be seen from Figure 2.6, the impact of these two changes on the nominal value of the euro are virtually identical in the short and long-run. However, their long- run impact on prices is very different, as are their short-run effects on output and inflation.

The impact of these two policy ideal types differ because they involve actions in two different places, even though the effects on the euro are the same. If the euro has fallen because of a perceived tightening of US policy, then there is no significant threat to European inflation. The ECB should look to domestic conditions. Evidence from French indexed bonds for instance shows little impact of recent changes on inflation expectations. However, this could reflect the fact that the operators in this market expect a tightening of policy. If, however, we have seen a fall in the euro because the ECB has shown itself to have a divided governing body and a politically difficult relationship with governments, then there may be inflationary consequences. The difference between the two can be seen from Figure 2.7.

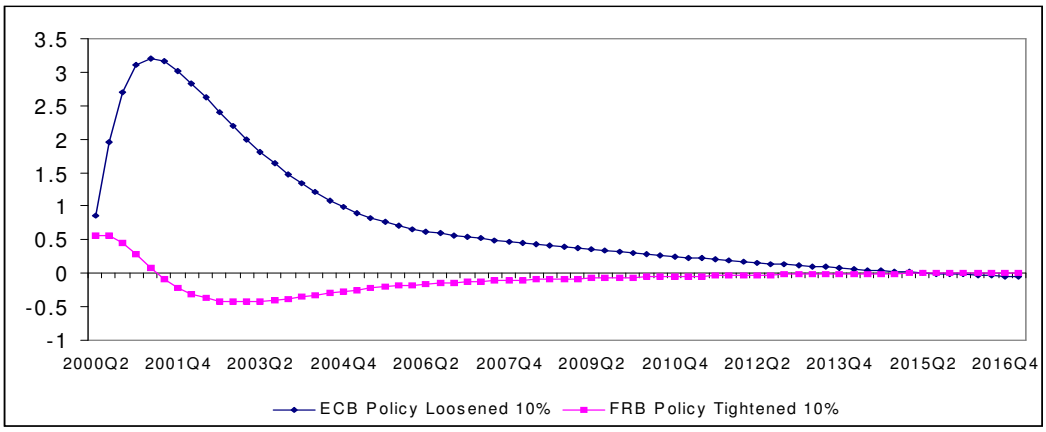
Figure 2.7: The Effects of the Fall of the Euro on European Consumer Prices (Consumer Expenditure Deflator for the Euro Area)



The effects on output of these two sets of policy changes are a little harder to discern in the first few quarters, as the real exchange rate moves in the same direction in both cases. If the US tightens then the dollar rises before prices change, and initially there is little effect on US output from higher interest rates. Hence euro area output rises by over half a per cent, as can be seen from Figure 2.8. The initial rise in output from ECB action is higher, but not greatly so. However, within a year the signal extraction problem is simplified. The ECB action adds strongly to output as real interest rates fall and the real exchange rate fall adds to the effects on demand. Clearly neither policy has any long-run effects on the level of

output as this is determined by the supply side of the economy, and a change in monetary stance cannot be seen to have an impact on it.

Figure 2.8: The Effects of a Fall of the Euro on European Output (Gross Domestic Product in the Euro Area)



We have argued that the fall in the exchange rate could have inflationary consequences, and the ECB should react. There needs to be a significant increase in interest rates to raise the euro back to parity with the dollar. If this does not happen then prices will rise by enough to remove the competitiveness advantage that has emerged in the last few months. Action has to be in place in the next few months, and we believe that will see a return of the exchange rate to 1.0 against the DM. If there is no action to keep EMU inflation on target then the dollar rate will stay where it is.

2.4 The Impact of External Demand on European Growth and Deficits

Stronger than anticipated growth has contributed to the observed improvement in fiscal balances throughout Europe. Strong revenues have persuaded countries such as Germany, France, Italy, Spain and Ireland to undertake tax cuts. These have been matched over the medium term by expenditure cuts in countries such as Germany. The increase in revenues has generally been treated as structural, although the evidence for this is not always clear. We believe that 2000 will see a small overall boost to demand from the government sector because of the perceived strength of revenues. However, fiscal stances will change within the year, and there will be a return to overall fiscal consolidation.

The post-war economic consensus in Europe was based around the view that the government could and did play a significant role in stabilising the level of output and unemployment somewhere near full capacity. There are sound theoretical reasons to think that this is at least possible, although developments in economics and experience of the last fifty years have taught us that the scale of the effects of fiscal expansions on output are strictly limited. Output can be stabilised by automatic responses to changes in activity or by discretionary action in response to acknowledged downturns. In the last year there have been a number of fiscal initiatives that can be seen as discretionary policies. However, the Maastricht Treaty and the Stability and Growth Pact changed the nature of fiscal policy in

Europe. There are long-term targets for deficits, and penalties associated with significant deviations from targets. If all actors expect the targets to be met, then fiscal policy has to be evaluated in terms of deviations from targets, rather than just innovations in tax and expenditure.

It is wise to build an economic system where there are automatic responses to the shocks that affect the economy, and these automatic stabilisers should help hold the economy near full capacity. The obvious stabilisers are in the tax and benefit system, and there is little evidence for government spending on goods and services being an integral part of a stabiliser-based fiscal structure. Income taxes have a number of objectives, but revenues will rise and fall in line with the economic cycle, partly offsetting the effects of the cycle on disposable income. The same is true of indirect taxes, but corporate taxes are unlikely to have a significant role to play in automatic stabilisation as they are often paid with a one or two year lag, and hence cannot be in phase with the cycle they represent. Transfers to individuals from the government have an obvious automatic stabilising role. They rise when unemployment rises and incomes fall and they provide and effective cushion against economic downturns.[20]

It is not clear that discretionary policy initiatives have always been wise. In general we would expect that they have been designed to stabilise the economy, but they may not have always done so. A discretionary response depends in part on perceptions of future outcomes, and these may be mistaken. For instance, in the UK in early 1999 it looked as if the economy were to face a period of slow growth. Hence in the budget of that year the Chancellor announced that income taxes would be cut in a year, hoping that this discretionary action would help support demand. However, growth in 1999 was well above the rate anticipated, and hence the action was not needed. It was left as part of the budget package in 2000, and the resulting set of policies could be seen as mildly expansionary just as the economy reached the top of its cycle. Hence in this case discretionary policy could be seen as pro-cyclical.

There are many other examples of this, for instance in the UK in the late 1980s the Chancellor was convinced that the trend rate of growth had risen. This made the government think that there was, therefore, a case for cutting the tax rate as the base was growing more rapidly than government spending. The 1987 and 1998 budgets both reflected this belief and were expansionary. Unfortunately the Chancellor was wrong, and fiscal policy worked in a pro-cyclical way to emphasise the amplitude of the cycle. It is episodes such as this that have persuaded policy makers that rules for guiding behaviour are better as a basis for policy. However, even under the new Code for Fiscal Responsibility in the UK or the Stability and Growth Pact in Europe judgements have to be made. If trend growth rises, then the buoyancy of tax revenues may be such that target deficits are easier to

[20] It is clear that benefit systems that provide substantial automatic stabilisers can be too generous for long term fiscal sustainability. If replacement ratios are high, and incentives to return to work weak, then each business cycle can see some of those who become unemployed remaining so, and hence unemployment rates can have an upward trend, as they did in Europe in the 1970s and 1980s. There are ways to deal with this problem without cutting rates, as the New Deal in the UK and the Danish incentives for the unemployed have shown in the 1990s. We do not discuss these issues further here.

achieve. The same may be the case when the sustainable level of unemployment falls and hence the burden on transfers declines. In addition, behaviour may change, as in the case of income taxes in the UK. The change to self assessment in 1996 seems to have been associated with a significant and permanent rise in tax revenues for given tax rates and a given set of rules. Revenue buoyancy of this sort means that deficit targets will be easier to hit, and hence they call for adjustments in order that the fiscal stance remains constant.

Tax revenues in a number of European countries have been rather buoyant in the last year, and budget deficits have been lower than anticipated in a number of countries. A constant fiscal stance requires that the reasons for the improvements in revenues are well understood and significant changes that are unrelated to the cycle in economic activity require a response. In these circumstances it is not always clear that a tax cut is expansionary, as it may not change perceptions of the fiscal stance and hence may not change behaviour.

We have argued above that growth has been stronger than anticipated mainly for external reasons. This will of course have impacts on European budget deficits. If the euro fell by 10 per cent permanently, and for reasons that fed fully through to demand we would see an improvement in growth in the first year of 1.5 per cent and of 0.8 per cent in the second year. By the end of the first year EMU budget deficits would be 0.9 per cent of GDP better than they would have been, and the improvement would be particularly large in Germany and Italy at 1.2 per cent and 1.0 per cent of GDP respectively. It would be less in countries such as France and Ireland, where the deficit would decrease by 0.6 per cent and 0.5 per cent of GDP respectively. We should obviously add to this the effects of stronger external demand on deficits in Europe. Between spring 1999 and spring 2000 the average EMU deficit forecast improved by 1.0 per cent for 1999 and 0.8 per cent for 2000, and this can largely be explained by events that can be described as cyclical rather than structural.

There have been policy initiatives in a number of countries. Expenditure has been cut in Germany, and this has been matched by changes in taxes. Buoyant revenues have led to cuts in taxes in France, Italy, the Netherlands, Belgium and Ireland. Our analysis suggests that the improvements in deficits in almost all these countries were cyclical and not structural, with only Italy and France showing some structural strength in revenues or improvements in deficits. In Italy this may be associated with the ongoing reforms of the state and the changing nature of the tax collection process. In France the buoyancy of revenues may be associated with the excess decline in unemployment and the rise in employment that has come from increased labour market flexibility associated with changes in hours legislation.

Elsewhere it is difficult to discern structural changes in revenues or improvements in underlying deficit positions. The strength of revenues quickly reflected the strength of activity, but forecasters, and especially governments, were slow to recognise that growth had risen and that improvements were only cyclical. Hence we would judge that the discretionary moves we have seen in the last year have been largely expansionary, albeit by rather a small amount. However, as the economy was approaching the top of the economic cycle, and resources were fully

utilised, even a half a point rise in demand stemming from a transitory loosening of fiscal policy may have had unneeded inflationary consequences.

2.5 Conclusions

We have argued that recent changes in the euro have had potentially expansionary consequences for the euro area, and that the unexpected strength of world demand has been an expansionary factor behind the growth of the economy and hence of the widespread improvement in budget positions. The improvements in budgets in a number of countries that have as a consequence cut taxes have no "unexplained" component and hence the changes must be seen as discretionary and expansionary. This is particularly unfortunate as the European economies are generally close to capacity, and some are operating above it, and cuts in taxes are liable to increase inflationary pressures in the Netherlands, Spain and Ireland.

The weakness of the euro area economy remains its labour market. It is inflexible, and employment takes a long time to adjust. This weakness probably has a significant impact on the willingness of firms to take up new technology, and helps explain why investment in computers is at such a relatively low level in most European economies. It is indeed difficult to see how computer-based just in time labour management through a flexible temporary employment market, as in the US, could be introduced in Europe. As a result of these problems unemployment is high compared to the US, and participation in the workforce is low. However, the last few years have seen an increase in participation, and labour markets have become more flexible for instance in France, Spain, Denmark and the Netherlands as government policies have begun to have an effect. Low wage settlements in Germany despite falling unemployment also suggest an improved labour market, with potential employment rising.

3. CHILD INCOME SUPPORT: OPTIONS FOR POLICY REFORM

Michael Plumb and Jim Walsh[21]

3.1 Introduction

This paper examines possible applications of government fiscal resources for supporting children in the context of Budget 2001 and subsequent budgets. The welfare of children is of major importance from a policy perspective given the large share of the population accounted for by children, their significance in terms of future economic development and the additional costs faced by households rearing children. Income support has been a longstanding feature of public policy for children, though of lesser significance than education, health and social services for children. In the last few years, however, child income support has emerged as a key tax/welfare policy issue, arising in various reports to do with child poverty, childcare, low-paid families and the tax/welfare treatment of households. Despite this increased attention, child income support policy is both *ad hoc* and fragmented, with a diversity of policy instruments, a lack of a consistent policy focus and a confusing variety of benefit units: children, families, married couples and lone parents. The conclusion of previous analyses by McCashin (1988) and Callan and Nolan (1994) remains relevant: policy decisions on child income support are made without an overall policy strategy.

This piecemeal approach to child income support is fraying at the edges, as incremental reforms are seen to dilute public resources, introduce anomalies between families, distort behaviour patterns and limit the achievement of policy goals. Thus, while more resources are allocated to children and families, including a record increase in child benefit and a new home carer's tax allowance in last year's budget, the strategic direction of policy remains far from clear. Similarly, the current debate about public subvention of childcare costs brings with it the danger of a further panoply of child income support measures, with the possibility of additional support being provided for families whose needs are weakest. At a wider

[21] Research for this paper was supported by the Combat Poverty Agency, which is gratefully acknowledged. The assistance of The Economic and Social Research staff in the application of the *SWITCH* model and the helpful comments of the referees and editors on earlier drafts of the paper are also acknowledged. However, the views expressed herein are the authors and not necessarily those of the Agency or ESRI staff.

level, reform is being prompted by a growing policy concern about the welfare of children. This flows in particular from the high Irish rates of child poverty, as well as more acute problems such as child abuse, youth homelessness and illicit drug use among children. There is also a changing perspective on how we conceptualise the needs of children. This is best reflected in the government decision to draw up a national strategy for children based on the UN Convention on the Rights of the Child, as well as the inclusion of children in the title of a government department (Department of Health and Children). A key element of this new policy is to move from a traditional approach where the needs of children are subsumed into a wider family focus to an acknowledgement that children have their own social, political and cultural rights. A focus on *child* income support puts the needs of children centre stage and counters the often arbitrary treatment of children depending on the type of family in which they reside.

A consistent obstacle to reform of child income support is seen as cost. However, the recent policy emphasis on an integrated tax/welfare perspective raises the potential for a better allocation of the existing expenditure on children and families within both codes (Commission on the Family, 1998 and Working Group on the Tax/Welfare Treatment of Families, 1999). An integrated approach also opens up the possibility of using the tax system to target an enhanced system of cash support for children. Second, the surplus in government finances allows scope for more radical child income measures, as evidenced by the expenditure in Budget 2000 of almost £1,600 million. Third, demographic trends have reduced the proportion of dependent children in the population, which makes major reform of child income support more affordable than heretofore (Fahey and Fitz Gerald, 1997). Finally, there is an increasing awareness that strategic investment in children can be productive in terms of greater labour market participation and improvements in educational performance and skill enhancement. The resultant exchequer gains can compensate for the immediate costs of an enhanced system of child support.

This paper begins by reviewing the welfare of Irish children. It then outlines current income provision for children, detailing the numerous policy instruments and extensive resource allocation involved. The paper goes on to present the various policy paradigms influencing child income support and to outline some key policy issues that have arisen. There follows a short review of recent policy developments in the UK, which has similar child poverty rates and income support structures to Ireland. Based on these analyses, the paper identifies a number of core policy issues as central to the future development of child income support. These are then given practical application in a reformed structure of child income support, which is analysed using the ESRI *SWITCH* tax/benefit model. This model allows for an informed assessment of our policy proposals based on a simulation of their distributional and labour market effects on a representative sample of the population.

3.2 The Welfare of Children

It is worth reminding ourselves of the demographic significance of children: 30 per cent of the Irish population are aged under 18 years, twice the number of people over the age of 60 years, and almost every second household contains a child. By contrast, the average percentage of children in the population in Europe is 21 per cent, while only a third of European households contain a child. The difference between Ireland and Europe is narrowing as falling Irish fertility rates contribute to a decrease in the percentage of children in the population. At the same time, the composition of Irish families, as between married, cohabiting and one parent families, is becoming more diverse. The contraction in the share of children in the total population, together with rising employment, has reduced levels of child economic dependence (Fahey and Fitz Gerald, 1997). However, trends in the welfare dependency of children are less clear-cut, as falling unemployment contrasts with rising numbers of lone parent and working families on income support. Meanwhile, higher female labour market participation has led to an increase in the indirect costs of caring for children.

As the numbers of children fall and living standards increase, how has this affected the welfare of children? A key indicator of child welfare is their exposure to poverty. The most recent (1997) data reveal that a quarter of children live in households below half average income, with almost two-in-five children below the 60 per cent relative income poverty line and 13 per cent below the 40 per cent line (Nolan, 2000).[22] This represents between 130,000 and 370,000 children under the age of 18 years. A more severe form of child poverty is experienced by 17 per cent of children (170,000), who live in households that are both income-poor and deprived of basic necessities,[23] while around 10 per cent of children remain poor over a period of time. The high proportion of children in poverty in 1997 is in keeping with a long-term deterioration in the financial position of children, dating from the early 1970s. In that time, the rate of child poverty has almost doubled, peaking in 1994 and dropping back somewhat by 1997. The recent decline in child poverty is most pronounced when the combined income and deprivation measure is used or if earlier poverty lines are fixed in real terms to reveal rising income levels (down a third on 1994).

Despite this recent improvement in children's fortunes, the situation remains of particular concern when looked at in a comparative context. First, children are more likely to be poor than adults, with children up to twice as likely to experience income poverty and deprivation, though the gap has narrowed in recent times as overall child poverty rates have fallen. Second, Irish children have among the highest rates of income poverty in the EU: one-and-a-half times more than the average and similar only to Portugal and the UK (1994 data). The comparative disadvantage of Irish

[22] The monetary value of the various poverty lines in 1997 were, for a two adult, two child household, the average weekly equivalent of £145.66 (40 per cent), £182.07 (50 per cent) and £218.49 (60 per cent). The average weekly household equivalent income per child was £21, £26 and £31 respectively.

[23] This is the measure used in the National Anti-Poverty Strategy for its poverty reduction target.

children is highlighted in the Irish national report of the UN Committee on the Rights of the Child. It is further confirmed in the recent UNICEF study of child poverty in rich countries, which reveals that, while one in six children in affluent countries is poor, Ireland's percentage of child poverty is far in excess of this norm.

What is behind the high risk of child poverty in Ireland? Parental lack of employment is the main cause, with children in out-of-work families at greatest risk of poverty (i.e. where the head of household is unemployed, ill or disabled or engaged in home duties). Such families account for two-thirds of all poor children. This pattern is accentuated for children in consistent poverty, with over half in unemployed families alone. Working families, though having a much lower poverty risk, still account for 30 per cent of poor children. In a wider context, absence of paid work is the key factor underlying the high Irish child poverty rates as compared to other countries, with Ireland having the largest percentage of families having no working adult (Nolan, 2000). Thus, continuing falls in Irish unemployment rates since 1997, while reducing child poverty rates, are unlikely to substantially alter the inferior position of children when compared to adults or children in comparable rich countries. In terms of family composition, lone parent and very large families have the highest child poverty rates. These are relatively small demographic categories, however, and thus contain only a minority of poor children. The distribution of poor children is in fact quite heterogeneous, with two-fifths in families of two adults and three or more children, a third in families with older and younger children, 18 per cent in smaller two-adult families and a tenth in lone parent households. It can also be noted that poor families are slightly bigger than non-poor.

Ireland's child poverty problem, while of obvious concern from a child income support perspective, should be seen in a wider policy context. First, child poverty is not just a short-term issue, but affects equality of opportunity for children in terms of subsequent education, health and job prospects. Interventions to improve the living standards of children should therefore give long-term returns in terms of labour market efficiency and public expenditure. Second, the welfare of children can also be measured using other indicators relating to housing, health, education and quality of life, in accordance with the provisions of the UN Convention on the Rights of the Child (see Costelloe, 1999 for a discussion of child wellbeing). While restricted by data availability, a recent UNICEF report provides some comparative information on Irish child welfare in an EU context (Micklewright and Stewart, 1999). This places Irish children in the bottom half of a range of league tables to do with mortality, education, teenage fertility and life satisfaction. Third, child poverty is clearly not just an Irish problem, but one that occurs throughout the industrialised world. Learning from other countries in terms of policies that work (and do not work) to reduce child poverty is of importance in charting future direction in child income policy.

3.3 Current Provision of Child Income Support

Current provision of child income support in Ireland is outlined in Table 3.1. This is broken down into four categories:

- means-tested child payments for social welfare and low-income families
- in-work child supplements for low-paid families
- tax-based supports for households with children
- universal child benefit for all families.

Table 3.1: Expenditure, Beneficiaries and Value of Child Income Support

	Cost	Beneficiary children	Beneficiary families	Value per child per week
Child dependant allowances	£258.9m	428,900 (298,185 full, 130,715 half)	217,388 (153,869 full, 63,519 half)	£13.20/£15/£17 (full rate)
Clothing and footwear allowance	£9.1m	183,708	NI	£1.21/£1.50
Medical card*	£78.6m	270,192	NI	£5.60
School books**	£2.5m	163,574	NI	£0.30
SWA items	£3.9m	NI	NI	NI
School meals	£1.7m	70,000	NI	£0.48
Family income supplement	£32.4m	35,727	14,449	£17.44 (average)
OPFP earnings disregard	NI	NI	42,232 (e)	Between £1 and £92.70
Child benefit	£445m	1,028,877	508,504	£9.80/£12.92
Fostercare allowances	£0.3m (e)	3,162	NI	£71.55/£85.75
Married couple tax allowance	£265.7m	NI	282,400	£18.09 (average per family)
Married couple tax band	£360.9m	NI	196,100	£35.39 (average per family)
Home carer tax allowance	£125m (e)	NI	242,000 (e)	£9.93 (average per family)
Widow/lone parent tax allowance	£57.5m	NI	67,100	£16.48 (average per family)

* Children under 15 years of age.

** Primary school only.

Compiled from information in and follow-up enquires based on Statistical Information on Social Welfare Services 1999, General Medical Services (Payments) Board 1999 and Report of Working Group on Tax/Welfare Treatment of Families. Information relates to a particular year between 1998-2000.

Means-tested child payments: The main payment here is the child dependant allowance (CDA), which is paid to all welfare recipients with children aged up to 22 years. In 1999, there were 430,000 children in 220,000 families for whom a CDA was paid, at a total cost of £259m. Seven-tenths of beneficiary children received the full rate of CDA, with the remainder getting a half-rate of payment. The main welfare categories for receipt of CDAs are unemployed families and lone parents (both over a third), with families on a disability payment accounting for a fifth. Three-quarters of CDAs are paid to families on social assistance, with a quarter for families on social insurance. There are three rates of CDA: £13.20, £15 and £17, depending on the specific welfare contingency. Most CDAs are payable at the lowest rate under the main social assistance categories, while recipients of the one parent family payment and invalidity pension get the £15 rate and the highest rate is paid to a minority welfare grouping in receipt of the survivor's pension or the deserted wife's benefit. A double CDA is paid for all long-term welfare recipients in December every year.

Other means-tested benefits for low-income households with children mainly relate to school-going costs, including an annual back-to-school clothing and footwear allowance (£63/£78), an annual school books subsidy and a daily "school meal". In 1998/99, a cumulative 420,000 children benefited under these schemes at a total cost of £13.5m. There are smaller numbers in receipt of exemptions from school transport and school exam fees. Low-income children can also claim one-off discretionary payments under supplementary welfare allowance, mainly for First Communion and Confirmation and equipment for new-born children. The main income-related non-cash benefit is the medical card (270,000 children under 15 years at an estimated cost of £78.6 million). An allowance for children is also factored into the calculation of household entitlement to housing and other general welfare benefits.

In-work family supplements: The main payment here is family income supplement (FIS), which is payable to low-paid working parents with children. Payment is calculated as a proportion (60 per cent) of the difference between net income and prescribed income limits linked to the number of dependent children. In 1999, there were over 35,727 children in 14,500 families in receipt of FIS. The average weekly payment per child is £17.44, though payments can vary between a minimum of £10 and over £120. FIS is paid by way of a weekly cash payment to the main earner. Up until recently, child additions to income tax exemption limits provided another mechanism of in-work support for families with children. These have become redundant, however, with the increase in standard-rated tax allowances. Working families who were previously unemployed are also entitled to a continued CDA for up to 13 weeks, as a transitional measure in moving from welfare to work. Another transitional support for working families is the back to work allowance, which allows previously welfare-dependent families to retain a declining proportion of their payments including CDAs over a three to four year period.

A more targeted in-work child income support is available to recipients of the one parent family payment (OPFP). As well as being a mainline welfare support for lone parents, the scheme incorporates a disregard which is specifically intended to compensate working lone parents for their childcare costs. The OPFP disregards the first £6,000 of earnings and withdraws any earnings over this figure at a rate of 50 per cent up, to a threshold of £12,000. Up to 60 per cent of recipients of OPFP (70,387 in 1999, with 112,895 dependent children) may be availing of the earnings disregard. The value of the disregard depends on earnings, with a maximum of £92.70 per week. The disregard is received indirectly through retention of the OPFP.

Tax-based family supports: Specific child tax reliefs are no longer a feature of the income tax code since their abolition in 1986 with the introduction of a unified child benefit scheme. There remains a more favourable tax treatment of married households and others with children which can be viewed as a subvention towards the household costs associated with caring for children (Fahey, 1998). These include double tax allowances and tax bands for single-earner married couples and double tax allowances for lone parents and widows/widowers, at a total cost of £800m. The value of these tax reliefs depends on the financial circumstances of eligible families, with an average weekly value of £18 for

families on the standard rate of tax and a further £35 for one earner couples on the higher tax rate. A new tax-based family support is the home carer's allowance, which has an estimated average value of £10 per week. This allowance is restricted to taxpaying couples where a spouse cares for a child under the age of 19 years (or an older person or a person with a disability) and earns less than £4,000 in a tax year (the allowance is tapered on yearly earnings between £4,000 and £5,000). All tax reliefs are included in a household's total allowance, with the main beneficiary being the taxable earner.

Universal child benefit: Child benefit is a universal cash payment for children, which has over one million beneficiaries in half a million families. Children in full-time education up until age 19 are eligible for child benefit. There is a dual payment structure: a standard rate of £42.50 per month (equivalent of £9.80 weekly) for the first and second child and a higher rate of £56 per month (equivalent of £12.92 weekly) for the third and more child. Three-fifths of eligible children (615,000) get the standard child benefit rate. The benefit is non-taxable and, uniquely, is specifically payable to mothers. Also included here is the allowance paid to families providing fostercare, which is worth between £71.55 and £85.75 per week depending on the age of the fostered child and was paid in respect of 3,162 children in 1998.

This overview of child income support highlights the diversity of policy instruments for supporting children and families. Indeed, the trend in recent years is for new schemes to be introduced, such as the clothing and footwear allowance or the home carer's tax allowance. In all cases, children and their families are in receipt of multiple payments, with families on welfare receiving up to 9 separate benefits. The range of payment methods is another feature of current provision, including cash payments, benefits-in-kind, tax reliefs and earnings disregards. In turn, these are delivered to different recipients within families (e.g. main carer, earner, claimant, taxable person), who are mostly fathers, with the exception of child benefit. Support for children is based on various tax/welfare beneficiary units, ranging from children to families and within families, from married couples to lone parents. The value of the various policy instruments varies extensively, from 30p to £35 per week. The total cost of child income package is in the region of £1,700 million per annum, with roughly £800 million going on both tax relief and cash payments and a further £100 million on benefits-in-kind, principally the medical card.

3.4 Policy Objectives in Child Income Support

We noted in the introduction the importance of looking at child income support in a comprehensive manner and, in particular, to avoid a focus on policy instruments to the detriment of the underlying policy objectives. It is only through understanding what policy seeks to achieve in supporting children that we can identify appropriate instruments. Four broad policy objectives can be identified: preventing child poverty, maintaining work incentives for low-paid families, sharing the costs of children and supporting families with childcare costs. These objectives are now discussed.

3.4.1 PREVENTING CHILD POVERTY

Preventing child poverty among welfare-dependent families is a core objective of child income support policy. The key policy issue here is the adequacy of the combined payment of CDA, child benefit and other means-tested benefits in relation to this goal. There is no official benchmark for what is an adequate welfare payment for children, though some important principles were established by the Commission of Social Welfare in 1986. The Commission stated that the full cost of rearing children in families dependent on social welfare should be met by the state. It did not, however, indicate an income range for a minimally adequate child payment due to the lack of relevant Irish data on child equivalence scales. As an interim step, the Commission proposed a rationalisation of the then 36 rates of CDA (reflecting both family size and welfare category variations) into a standard payment of £10 per week (1985 value). This unitary figure would both improve the position of children on the lowest payment rates (then as low as £5.80 per week) and ensure consistent treatment for all child dependants regardless of welfare status, another principle of the Commission. The Commission retained a role for universal child benefit in supporting low-income families and stated the value of the payment should be at least maintained and ideally enhanced. In order to enhance the effectiveness of child benefit in supporting low-income children, the Commission proposed it be tiered on the basis of age and family size. Other child-related recommendations were a quarterly CDA supplement and fuel and electricity allowances for families long-term dependent on social welfare.

Following the Commission, policy focused on a dual strategy of raising the lowest payments while reducing the number of rates. At the same time, other means-tested benefits were either introduced or improved, albeit at a modest cost, including the clothing and footwear allowance, while child benefit maintained its value. Since 1994, the enhancement of CDAs has come to a sudden halt and subsequent improvements in child income support for welfare families have been almost exclusively channelled through child benefit. (The reasons for this shift in policy relate to efficiency concerns which are discussed later.) Having reached the interim benchmark set down by the Commission, the drive to improve CDA rates lost momentum and they have been allowed to slowly devalue in line with inflation. Consequently, while the total value of payments (CDA and CB) has increased by between 15 and 20 per cent in real terms since 1994, this has not been sufficient to maintain their relative value compared to adult welfare rates or average earnings. This has minimised the improvement in the financial position of children in recent times. Further improvements in the value of child income support for welfare-dependent families are now dependent on the rate of increase in child benefit. Because of the costs involved in increasing child benefit, a significant improvement in the rate of payment is extremely expensive. For example, the record £100 million expenditure in child benefit in Budget 2000, though representing a 23 per cent rise in child benefit, only delivered an increase of 8.7 per cent in the combined CDA/CB package. This compares with the increase in adult welfare rates in the budget of between 4 and 9 per cent.

The combined value of child support for children in welfare-dependant families is illustrated in Table 3.2. The minimum value of payments is £24.99 (which the majority of children receive) and the maximum is

£32.20, the equivalent of 33 and 42 per cent of the lowest adult payment. To what extent can these be considered adequate? Research has been undertaken in order to estimate a minimum payment for children by the Combat Poverty Agency using a budget standards methodology (Carney *et al.*, 1994). Uprated by inflation, this suggests an average minimum cost of a child of almost £34, with a range of between £20 and £46, depending on age. The maximum child welfare payment approximates to the average cost (less than £2 of a difference), while there is £9 of a gap with the minimum payment.[24] The closest official measure of child costs is the allowance paid in respect of children placed in fostercare. The current value of this allowance is £71.55 for under 12s and £85.75 for those aged 12 or over, with child benefit also payable. The combined fostercare allowance/child benefit is three times the minimum child welfare payment, a difference in real terms of £70 per week. An alternative official guide is the rate of orphan's allowance/pension, currently £55.60. It is also interesting to compare the basic Irish rate with that in the UK, where the highest rate of CDA is £31.75 (sterling).

Table 3.2: Combined Value of Main Child Income Supports for Families on Welfare[25]

	Minimum	Maximum
Child benefit	£9.80	£12.92
Child dependant allowance	£13.20	£17.00
Clothing and footwear	£1.21	£1.50
School books	£0.30	£0.30
School meals	£0.48	£0.48
Total	£24.99	£32.20
Adult equivalent	*0.33*	*0.42*

Other issues relating to an adequate child welfare payment is the continued absence of an age variation to take account of the higher costs of older children, as illustrated in the costs of a child study (Carney *et al.,* 1994) and Conniffe and Keogh (1988) (though the differentiated clothing and footwear allowance can be seen as a partial acknowledgement of this). There also remains a difference of up to 30 per cent in CDA rates based on the welfare status of recipient, with children of unemployed families getting the lowest payment. Yet, such children face the highest poverty of all labour market categories (Nolan, 2000). The penchant for smaller labelled schemes acting as "top-ups" to mainline provision runs counter to the rationalisation of schemes advocated by the Commission on Social Welfare and, more recently, the Comptroller and Auditor General. Finally, the increased reliance on monthly child benefit to provide basic child support introduces money management issues for welfare families, an issue which also arises due to the delayed time frame for recording annual increases in child benefit.

[24] These payments can also be compared to the equivalent weekly household income per child at the three income poverty lines of £21, £26 and £31 respectively.

[25] The value of the medical card has been excluded because of lack of information on its value and the fact that it is dependent on actual use rather than a standard rate of payment.

3.4.2 PROVIDING WORK INCENTIVES FOR LOW-PAID FAMILIES

Supporting low-paid working families is a second objective of child income support. The main expressions of this policy are the family income supplement (FIS), which dates from 1984 and the now defunct child additions to tax exemption limits. The introduction of FIS in 1984 was motivated by the need to ensure work incentives for low-paid families compared to what they might receive on social welfare. The primary purpose of FIS is thus a defensive one: to minimise the possible impact of CDAs on work incentives for low paid families. FIS has been dogged by major efficiency concerns since its introduction, as detailed in a number of government-sponsored reviews (Callan *et al.*, 1995, Expert Working Group on the Integration of the Tax and Social Welfare Systems or TWIG, 1996). Discussion has focused on two issues: the low take-up of FIS and the high tax-welfare withdrawal rates associated with the scheme. The low take-up of FIS – around 40 per cent of eligible families were receiving 63 per cent of the potential expenditure – has prompted various actions to improve the delivery of the scheme, including the introduction of a minimum payment.[26] A proposal to convert FIS into a refundable tax credit is to be analysed under the *Programme for Prosperity and Fairness*. In order to address the poverty trap associated with FIS, entitlement is now calculated on a net income basis, while the introduction of income tax credits has eliminated problems associated with tax exemption limits. At the same time, this and other FIS reforms have had the knock-on effect of extending relatively high marginal tax/welfare rates up the income schedule.

More radical policy proposals have been made to address these efficiency concerns, involving the replacement of FIS and CDAs by an integrated child income support payment. This policy response to work incentives has a long pedigree, with support coming from the national plan, *Building on Reality 1984-1987*, the NESC strategy document (1990), the policy programme of the 1994-97 coalition government and TWIG. Three main variants of this policy option were considered by TWIG:[27]

- a basic income for children, equivalent to the lowest CDA and child benefit;
- a taxable basic income for children, with an equivalent lowest CDA/child benefit payment being subject to income tax (called an integrated child benefit);
- a means-tested child income supplement, equivalent to the lowest CDA, with a tapered withdrawal, e.g. 30 per cent above a

[26] These have included:

- increases in weekly income limits (e.g. from £100 to £233 for a one child family)
- introduction of a minimum payment and abolition of a maximum payment
- greater flexibility in the calculation of minimum employment hours
- guaranteeing eligibility for one year
- increasing the multiplier rate (from 33 per cent to 60 per cent)
- disregarding FIS when calculating entitlement to other means-tested schemes.

[27] The details underpinning these options is based on research carried out by staff at the ESRI using the *SWITCH* tax/benefit model: see Callan *et al.*, 1994; Callan *et al.*, 1995.

threshold of £200 (referred to as child benefit supplement), with separate retention of child benefit.

TWIG was undecided regarding the relative merits of the various reform options in terms of improving work incentives and minimising poverty traps. The key obstacle in a radical reform of in-work benefits appears to be cost rather than principle. The NESC strategy report (1996) also endorsed an integrated child benefit as the strategic approach to the related problems of unemployment and poverty traps for low-paid families, against which other child income measures should be measured. Despite these reforms being unimplemented, the recent emphasis on enhancing child benefit and freezing CDAs is in keeping with this approach. At the same time, the continued enhancement of FIS as an in-work benefit is not seen as compatible with a long-term goal of integrating FIS and other child supports into a unified payment (TWIG, 1996; though NESC, 1996, adopted the contrary view that both are in fact compatible).

3.4.3 SHARING THE COSTS OF A CHILD

A third policy objective of child income support is to share the costs of children with families. This has been a long standing goal of policy and overtime has included both child tax allowances and children's allowances. Since 1986, the sole mechanism for sharing the costs of a child has been child benefit. This redistributive rationale underlying child benefit can be justified on three grounds:

- societal investment in children as a collective economic asset for the future;
- horizontal equity between households with and without children;
- balancing income over the lifecycle needs of families, as with pensioners.

Child benefit has many attractions as a means of child income support: high take-up and low administration costs, equitable payment to all families, avoidance of unemployment traps and recognition of mothers as the primary carers of children (NESC, 1980; Commission on Social Welfare, 1986; Child Benefit Review Committee, 1995). Nolan (2000; p. 92)) quotes Gordon Brown's (UK Chancellor of the Exchequer) endorsement of child benefit as "the fairest, the most efficient and the most cost-effective way of recognising the extra costs and responsibilities borne by parents".

A key issue in regard to child benefit is what proportion of the costs of children the payment should represent (Mangan, 2000). In practice, payment rates have been developed in an *ad hoc* fashion, either in line with inflation or, in more recent times, incorporating significant improvements in real terms. In keeping with this approach, the *Programme for Prosperity and Fairness* refers to "substantial progress" in the rate of child benefit, though its target of a £100 child benefit (£23.07 per week) for the higher family size rate is a significant departure from previous policy aspirations. Since 1993, child benefit has gone from £15.80 to £42.50 per month, representing a doubling of the real value of the payment. Other enhancements include a lower threshold for the higher payment for children in larger families (from sixth to third) and a higher age cut-off (from 18 to 19 years). Despite these improvements, the basic payment on a

range of comparisons remains very low: 29 per cent of the basic costs of a child and 11 per cent of the old age pension. It is also relatively low compared to child support in EU countries, including the UK, though the gap is narrowing (Bradshaw *et al.*, 1993; Child Benefit Review Committee, 1995). A major obstacle to increasing the rate of payment is the cost involved, though this barrier has diminished in recent years with falling child dependency rates.

Another policy issue is whether child benefit should be better targeted, both as a way of meeting greatest needs and of containing costs. Discussions on targeting of child benefit have taken two main forms. The first of these is to differentiate payments by selected demographic characteristics of children, such as family size or age. The payment of a higher rate for children in larger families has long been justified on the basis of their higher risk of child poverty and because wages are not adjusted to take account of the number of child dependants (Commission on Social Welfare, 1986). The importance of the family size adjustment has increased as the threshold for the higher payment has been reduced to the third child. At the same time, the premium for children in larger families has fallen from over 50 per cent of the basic rate in 1985 to 30 per cent in 2000 (though this may be set to change with adoption of a £100 higher rate target). Recent child poverty data reveal that children in larger families are significantly more likely to be poor than those in small families, especially in terms of a combined poverty and deprivation measure (Nolan, 2000). Numerically, these households account for approximately 40 per cent of poor children. At the same time, there is evidence of savings from having multiple children, though these may not be as relevant where poor children are involved (Conniffe and Keogh, 1988). Meanwhile, an age variation has never been a feature of child benefit, though one was proposed by the Commission on Social Welfare, in particular to take account of the additional school-related costs of older children. The findings from studies on the costs of a child confirm this (Carney *et al.*, 1994, record a differential of 130 per cent). However, there are also counter arguments based on the higher indirect costs of younger children (Callan and Farrell, 1991; Child Benefit Review Committee, 1995). A similar conclusion can be drawn from UK research which indicates that younger children, in particular those of pre-school age, are most likely to be poor (Hill and Jenkins, 1999).

The second consideration for reform of child benefit is to selectivise the payment on children in low-income families so as to avoid "wasting" resources on better-off families. This issue has regularly featured in government reports and policy proposals dating back to the introduction of child benefit in the mid 1980s, along with the various administrative, technical and political problems associated with such a move (Callan *et al.*, 1995; Child Benefit Review Committee, 1995; Ellis, 1999). A restricted child benefit could also undermine popular support for the payment and hasten demands for the re-introduction of child tax reliefs. An alternative approach may lie with recent proposals to restrict the transferability of tax allowances and bands for married couples. The savings could fund an enhanced child benefit payment, as well as eliminate the waste of public resources on households without dependant children (Fahey, 1998; Working Group on Tax/Welfare Treatment of Families, 1999). A targeted

child benefit has also been associated with proposals to abolish CDAs and FIS. Here, the motivation is more strategic, with a taxable child benefit seen as a move to a more efficient system of child support, while maintaining support for better-off families.

3.4.4 SUBVENTING CHILDCARE COSTS

A more recent policy concern is with the indirect childcare costs of children, with parents either withdrawing from the labour market or having to purchase childcare services (Callan and Farrell, 1991). While there is no general provision for the care of children in the tax and welfare codes, a childcare subvention is incorporated into elements of both systems through the favourable tax treatment of married couples and one-parent families, the new home carer's tax allowance and the earnings disregard under the one parent family welfare payment (OPFP). The transferability of tax allowances and bands can be seen as a support for childcare provided by a parent in the home (Fahey, 1998; Commission on the Family, 1998). It is an expensive policy, however, costing £800 million in the current year. It is also poorly targeted in that it does not benefit families outside the tax net, non-married families or families who purchase childcare services. The OPFP, introduced in 1997, incorporates an automatic tapered earnings exemption in recognition of childcare and other work-related costs incurred when taking up work. This replaces discretionary allowances previously granted under the lone parent's allowance. Already, aspects of the earnings exemption have given rise to concern. These relate to the introduction of a poverty trap for lone parents earning in excess of £12,000, the favourable treatment afforded to lone parents as compared to two parent households and the disincentive effects on the formation of long-term relationships including marriage (McCashin, 1997; Working Group on the Tax/Welfare Treatment of Families – TWTFG, 1999.) McCashin demonstrates how the net income for a lone parent may only change marginally across a gross income range of £90 to £240 per week. These and other aspects of the scheme were recently reviewed by the Department of Social, Community and Family Affairs (2000a). The £3,000 home carer's allowance applies to a specific family and tax contingency: single earner married parents liable to tax. The arbitrary nature of the scheme and its negative labour market effects especially for women are causes of concern.

The partial nature of childcare subvention is widely seen as unsatisfactory and various contrasting proposals have been put forwarded for an overhaul of state provision. The Commission on the Family (1998), operating from a "family" perspective, identified a gap in support for the caring responsibilities of families with pre-school children:

> *In relation to childcare, the State assumes a significant element of the care responsibility for children when they are old enough to attend school, through the education system. It is in the younger age groups that childcare responsibilities are most costly. In particular, it is in the years before entry into school that the issue of parents withdrawing (fully or partially) from the paid labour force to care for children, or incurring substantial childcare costs, arises most sharply.* (p.63)

The Commission advocated financial investment of the order of £260 million per annum for families with young children in order to ensure

equitable treatment with families with school-going children. In presenting a number of policy options for allocating this money, the Commission emphasised the importance of supporting parents' choice in relation to how they care for their children. The Commission explicitly rejected the introduction of tax allowances as a means of supporting childcare costs as being inequitable and also potentially divisive as between one and two-earner families. Two of its proposals involved a direct payment for parents with children under three years. However, the Commission was divided as to whether this payment should be for all parents or just parents in the home. The Commission's third option was to provide a supplementary child benefit rate for all children under the age of three years. The Commission separately argued for an annual payment of £1,000 to purchase early education services for children aged 4-5 years, called an early years opportunity subsidy. Acknowledging the high costs involved in these options, the Commission identified reform of the tax arrangements for married couples as a means of generating the resources required to implement its recommendations.

The Commission's proposals were further developed by a government appointed working group examining the tax/welfare treatment of different family types (TWTFG). The group identified enhanced support for children as central to its objective of consistent and equitable treatment of households and put forward two linked tax/welfare policy options based on restricting the transferability of tax bands between married couples. The estimated revenue yield of £367 million could be used to either fund a general increase in child benefit of £32.50 per month (£7.50 per week) or to pay for a package including a £30 weekly allowance for parents working full-time in the home, a weekly £20 pre-school education subsidy and an additional £16.50 on child benefit (£3.80 per week). Both options have substantial redistributive effects: from non-child households to households with children, from better-off to low-income families, from fathers to mothers and from earning to non-earning households. The child benefit option also has positive work incentive effects, while payment of a home parenting allowance has the opposite outcome. The working group did not reach a consensus on either option because of its proposed funding strategy, with the Department of Finance and Revenue Commissioners objecting that eliminating tax transferability would introduce an "unjustifiable discrimination against one-earner couples" and stating that "such a partial restriction is not under consideration". Of course, the subsequent introduction of tax individualisation in Budget 2000 has dramatically changed this policy stance.

An altogether different approach to childcare subvention was adopted by the Expert Working Group on Childcare, based on labour market priorities. Its preferred option was to increase child benefit and to leave parents the choice of how to provide childcare, on the basis that child benefit goes to all families regardless of employment status or how childcare is provided. Child benefit was also seen to remove disincentives to work and "offer women a genuine choice" (1999, p. 63). The group suggested a supplementary payment of £20 per week for all children under 13 years as a meaningful contribution to childcare costs. However, at an estimated cost of £728 million, the group rejected this option as too expensive. As an alternative, the working group proposed a wide-ranging

package of measures including cash payments, subsidised provision, additional income disregards under FIS and OPFP, income tax relief and the exemption from tax of subsidised workplace childcare. Significantly, all subvention was linked with use of commercial childcare services and excluded parents caring for a child at home or having informal childcare arrangements.

The government has implemented none of the above proposals, though a resonance can be seen between the home carer's tax allowance and the parental cash allowance advocated by the Commission on the Family. However, it is committed under the *Programme for Prosperity and Fairness* to "adopt an equitable strategy to support parents in meeting their childcare needs" (p.120). Already, it is clear that there are widely differing views on how best to support childcare costs, especially as between tax relief and universal cash payments.[28] Given the limited pool of resources available, it is important that policy instruments are chosen which target those whose need for childcare support is greatest and that a scattergun approach is avoided. This can best be achieved by integrating childcare subvention into the existing policy priorities for child income support. Subsidising access to pre-school education for poor children and disregarding childcare costs under the family income supplement would generate the greatest returns from a distributional perspective. If resources permit a more expansive approach to sharing childcare costs for all families, then a child benefit supplement targeted at younger children would be the fairest way forward.

3.5 Child Income Support in the UK

We now turn to review child income policies in the UK. These are of interest because of the similarity in child poverty patterns and the common tax/welfare mechanisms. The main features of the tax and benefit system for children in the UK did not change substantially in structure for the twenty years to 1997 (Piachaud and Sutherland, 2000). At this point the system included universal child benefit payable for all children, a means-tested benefit for low income working families, and child additions to the primary social assistance benefits and some contributory benefits. By 1997, the predominantly individualised income tax system had no tax allowances or other concessions for children. The election of a new government with a commitment to eliminating child poverty in a generation led to a major enhancement of child supports, with a particular emphasis on encouraging employment. Following publication of a government policy paper on child income support as part of a reform of Britain's tax/welfare system in November 1999, the Labour Government identified four immediate changes to the tax and benefit system which would enhance support for children (HM Treasury, 1999):

- Family credit was replaced by the more generous working families tax credit, to be paid through the pay packet rather than direct to families.

[28] Proposals include an annual childcare tax allowance of between £2,000 and £4,000 per child depending on age/number of children and a taxable parents' childcare payment of between £20 and £10 per child per week, again depending on the age of the child.

- Child benefit was increased by more than the rate of inflation. By April 2000, a rate of £15 per week was paid for the first child and £10 per week for subsequent children. Child benefit remains not subject to income tax.
- The married couple's tax allowance and lone parent's tax allowance will be replaced by the children's tax credit from April 2001. It will be paid to a parent in all families with a child less than sixteen, but withdrawn from higher rate tax payers. It will be worth up to £416 a year to families with an income tax payer.
- The rates of income support and other means-tested benefits are being increased for families with children, particularly for those with children under eleven.

Government estimates suggest that the extra spending on children will amount to £6 billion or 2 per cent of total government expenditure by April 2001. The long-term goal is to bring together these different strands of income support for children into a single, seamless payment system building on child benefit. This "integrated child credit", for those in and out of work and paid to the main carer of children, would provide a common framework for assessment and payment of child income support, while allowing extra resources to be directed at those most in need. It would also generate efficiency gains and reduce red tape for families claiming support.

Analysis by Piachaud and Sutherland (2000) suggests that the current reforms could lead to a reduction in child poverty of around one-quarter to one-third of current levels. Although this is a substantial reduction, it is a considerable distance from the stated objective of eliminating child poverty. Furthermore, a reduction in child poverty of one-third would still leave the UK with child poverty rates that are extremely high by European standards. Also, the accuracy of such forecasts depends upon the government's success in keeping unemployment down. The government's policies for enhancing work incentives are also brought into question by Piachaud and Sutherland. The government has placed greater emphasis on selective and means-tested benefits, which are the most effective means of boosting incomes of the poorest in the short- and medium-term. However, in the longer-term, increased support for the poorest that is rapidly withdrawn as earnings increase serves to exacerbate poverty traps. Hence, whilst the government "emphasises responsibilities and stresses the desirability of more self-reliance, its selective strategy may be undermining what it seeks to encourage" (2000, p. 39). The key policy lesson from the UK approach is that a more explicit redistributive tax/welfare strategy is required if ending child poverty in a generation is to be achieved.

3.6 Policy Options

3.6.1. A STRATEGIC APPROACH TO REFORM OF CHILD INCOME SUPPORT

Previous sections have examined issues surrounding child income support policy and reviewed recent policy developments from a domestic and comparative perspective. This illustrated that child income support policy incorporates a multiplicity of schemes which represent a significant transfer of resources to households with children. At the same time,

current provision suffers from a lack of coherence, with incremental reforms being an inadequate substitute for a strategic vision of the future direction of child support. Future policy should not just be about providing more resources; it is also about changing the structure of child support to improve its effectiveness and efficiency in targeting children, especially those most in need. In this regard, a number of important benchmarks can be outlined for reform of child income support:

- Tax and welfare transfers should be seen as two sides of the one redistributive strategy for children. Distinguishing between the two in terms of children is a "red herring", when the key issue is the relationship between gross and net income (McCrae, 2000). This would allow for a more equitable allocation of existing tax/welfare resources and for taxation measures to be used to fund higher cash payments for children. An annual statement of exchequer expenditure on children would also enhance the transparency of and public support for child income support.
- Policy should set out what it considers to be a minimum income standard for children, in fulfilment of the rights of children to an adequate standard of living. Government should then work towards ensuring that this amount is provided for children in low-income families. Similarly, the state should set out what proportion it will meet for all children and again work toward this goal.
- A more efficient way of providing child support is required to overcome the existing problems of unemployment and poverty traps. The current system can also be seen to distort family formation and to create inequities between families by having categorical payments linked to certain family types. Again, a more behaviour-neutral way of proving child support is needed.
- The diversity of payments for children, especially for those on low incomes, should be replaced by a single payment which would focus resources on children. This should in turn be targeted at the main carer of children, in order to maximise the likelihood that resources are used to meet children's needs.[29] This would also apply in the case of subvention with childcare costs.

We now propose to apply these benchmarks in a potential reform of the present system of child income support. It is not our intention to advocate a specific policy reform. Rather, the following analysis sets out to illustrate the potential effects of various policy options as they relate to the preceding discussion regarding child income support. This will be considered in the context of a hypothetical additional £500 million per annum being available for direct expenditure on children over a three-year period. (For technical reasons, this will be modelled on the basis of a one-off expenditure.) This allocation can be compared with the £100 million spent on child benefit in Budget 2000 and the £125 million cost of the home carer's allowance. The £100 per month child benefit target in the

[29] For an analysis of the use of child payments and its implications for intra-family income distribution see Rottman (1994), Lister, Goode and Callender (1999) and Madden (1999).

social partnership agreement suggests a government commitment to similar levels of expenditure in future budgets.

In researching this model we examined three potential policy options, all within the framework of a universal child benefit. These included a policy whereby the existing structure of lower payments for the first and second child was maintained and the level of payments increased, and a policy whereby a standard payment was received for each child. These alternatives could be delivered at the same cost as the illustrated policy option and had a similar impact on financial incentives to work, but were not as effective in providing support to families at the bottom end of the income distribution. A detailed examination of the policy options on the distribution of income, financial incentives to work and government revenue was undertaken using the *SWITCH* tax/benefit model.

3.6.2 OVERVIEW OF THE SELECTED POLICY OPTION

The policy option considered below represents a substantial increase in the level of provision of child income support and includes:

- a substantial increase in child benefit
- a change in the payment structure of child benefit
- a rationalisation of all existing means-tested CDAs to a single rate of £13.20 per dependent child (equal to the existing minimum CDA rate)
- the abolition of all CDAs payable under social insurance payments
- the abolition of FIS
- the abolition of the home carer's tax allowance as it relates to the care of children.

The reform of child benefit involves a change in the structure of payments. The current system involves a monthly payment of £42.50 per child for the first two children and £56 for each subsequent child. The selected policy option involves a front-loaded and age-related payment as follows:

- for the first child aged less than 5 years – £135 (£31.15 per week)
- for the first child aged between 5 and less than 12 years – £115 (£26.54 per week)
- for all other first children – £65 (£15 per week)
- for all subsequent children – £65 (£15 per week).

The total cost of the policy option to the government is estimated in *SWITCH* to be £497.5 million per annum, although this might overestimate the true cost if labour supply responses are significant. A more detailed examination of government budget effects is provided in Section 3.6.4.

This policy has a number of potential advantages in terms of current provision and which also fit with the criteria discussed above. First, it represents a significant increase in the overall level of child income support which contribute to a reduction in child poverty and results in a greater sharing with all families of the costs of raising children. It also accords with the priority attached to child benefit in the *Programme for Prosperity and Fairness*, albeit with a change from back-loading to front-loading the payment. Second, the abolition of various targeted programmes and the rationalisation of existing means-tested CDAs to a single rate represents a

significant simplification of child support. The selected policy option results in a transparent two-tier structure, whereby the bulk of child income support is provided by the universal child benefit and poorer children receive additional help via a standardised payment. Third, by expanding child benefit, the policy option strengthens its contribution to equal treatment of family types, reduction of unemployment and poverty traps, targeting assistance at low income families, and recognition of the role of mothers in caring for children. Fourth, the policy option represents a substantial commitment to increasing support for childcare costs by front-loading the payment for the first and younger child. This is where the indirect costs of childcare are most prevalent. By relying on child benefit as the primary mechanism for providing childcare support, it prevents distortion of parental choice in caring for children.

Finally, the suggested increases in child benefit are accompanied by the abolition of contributory benefit CDAs, the home carer's tax allowance and FIS, as well as the standardisation of means-tested CDAs at the minimum rate of payment. The primary objective of abolishing/reducing these instruments is to alleviate poverty and unemployment traps, by significantly reducing the tax and welfare benefits that households are forced to forgo as income increases. The effects of the policy option on the financial incentives to work are detailed below. Given that most of these instruments are targeted towards poorer households, their abolition/reduction would be expected to adversely affect such households. However, this effect is intended to be more than offset by the substantial increases in child benefit, and the overall distributional effects of the policy option are also examined below.

The major limitations of the policy option relate to the increased government expenditure required to fund the overall increase in the level of child income support (discussed below) and the broad targeting of resources. All means-tested benefits are preserved in the proposed policy option and set equal to the existing minimum rate, thus providing a degree of targeted assistance. However, the balance between universal and targeted assistance in the policy option is shifted towards the former.

The discussion so far has emphasised the potential impact of the policy option in general terms. However, a more comprehensive approach is required to analyse the effects on different households. It has been common for governments to analyse the implications of fiscal reforms by considering the impact that they would have on hypothetical household or hypothetical family types, with incomes equal to some fraction of average weekly earnings and specified demographics and earnings breakdowns. It has been demonstrated that using such an approach to conduct distributional analyses can be seriously misleading, as only a small proportion of real household types are represented, and the frequency of each household type is ignored (e.g. Atkinson and Sutherland, 1983). *SWITCH*, the ESRI tax-benefit model, overcomes these disadvantages by employing a representative sample of households. Consequently, the diversity of circumstances throughout the population and the frequency of different household types are taken into account. Following Callan *et al.* (1999, p. 20), the model is designed to calculate the impact of policy changes on the disposable income of all families and can therefore be used to identify the pattern of gains and losses across income and demographic

groups. In addition, the model can be employed to analyse the effects of policy reform on financial incentives to work. These analyses are now presented in the remainder of this section.

3.6.3 DISTRIBUTIONAL ANALYSIS

The policies detailed in Budget 2000 are taken as the basis for comparison in considering the impact of the selected policy option. Given the additional expenditure associated with the policy option relative to Budget 2000, families might generally be expected to gain from the reform. However, it is the distribution of gains and losses across families of different income levels and composition that is of primary concern. The results in Table 3 reveal that the largest percentage increases in disposable income are experienced by families at the very bottom of the income distribution, with the bottom and second deciles recording increases of 5.9 per cent and 6.3 per cent respectively. The next four deciles record increases of at least 1.9 per cent, and the percentage gains taper as one moves along the income distribution. However, the absolute gains, in terms of pounds per week, are significantly lower for the bottom, third and fourth deciles. That is, the larger percentage gains for the bottom deciles described above reflect the fact that even a small absolute increase in disposable income represents a larger proportion of these very low incomes. This suggests that the policy option is not well targeted towards poorer households, and this issue is discussed further in Section 3.6.5 below.

Table 3.3: Average Percentage and Absolute Change in Family Disposable Income by Equivalised Income Decile – Policy Option Compared with Budget 2000 Policy

Decile	Percentage Gain	Absolute Gain (£ per week)
Bottom	5.9	2.68
2nd	6.3	5.89
3rd	2.0	2.27
4th	1.9	2.81
5th	2.4	4.81
6th	2.5	6.70
7th	1.8	5.64
8th	1.6	6.14
9th	1.2	5.55
Top	0.6	4.64

It is also possible to estimate the effect of the policy option on child poverty using *SWITCH*. Table 3.4 shows the numbers of children living in households below relative income poverty lines, measured as 40 per cent, 50 per cent and 60 per cent of mean equivalised household income, post-Budget 2000 and for the policy option.[30] The reform leads to a significant reduction in children living in very poor households (10 per cent to 8.4 per

[30] Issues in measuring relative income poverty for children have been discussed at length elsewhere, and no discussion is provided here (see Nolan, 2000). It should be noted that as a relative poverty measure, the increase in average incomes arising from the policy option leads to higher absolute thresholds.

cent, representing over 17,500 children), but does not affect the number of children in households under the 50 per cent and 60 per cent lines.

Table 3.4: Percentage of Children in Households below Various Relative Income Lines

Relative Income Line	Budget 2000	Policy option
40%	10.0	8.4
50%	24.3	24.3
60%	34.9	34.9

Table 3.5 examines the types of families that benefit most from the policy option. The largest percentage increases in disposable income are experienced by families comprising either a non-earning lone parent, or a non-earning couple with children and at least one adult unemployed (12.8 per cent and 13.6 per cent respectively). All other family types with children also experience significant gains, ranging from 2.2 per cent to 4.1 per cent. [31] These percentage increases translate into substantial monetary increases for families with children, with average weekly gains ranging from around £10 for employed lone parents up to over £27 for non-earning couples with children.

Relative to the child income support policies detailed in Budget 2000, the policy option can be decomposed into the following components:

- An increase in the *level* of child income support
- A change in the *structure* of child income support.

Table 3.5: Percentage Change in Average Family Disposable Income by Family Type – Policy Option Compared with Budget 2000 Policy

Family Type	Percentage Gain	Average Gain (£ per week)
Employed Lone Parent	4.1	10.80
Non-earning Lone Parent	12.8	16.02
Single Earner Couple with Children	3.3	15.33
Dual Earner Couple with Children	4.1	24.97
Dual Earner Couple with Relative Assisting	2.2	11.86
Non-earning Couple, at least one Unemployed, with Children	13.6	27.29

To separate the effects of these two components, it is useful to make a further comparison. Consider a scenario in which the existing structure of child income support is maintained, namely the combination of child benefit, means-tested CDAs, contributory CDAs, FIS and the home carer's tax allowance, but the overall level of support is increased by £497.5 million per annum. More specifically, the overall budget cost of child income support is increased by £497.5 million per annum, but the cost of each existing child income support policy instrument as a proportion of total child income support is unchanged. Comparing this 'uprated' Budget 2000 policy with the proposed policy option therefore provides an indication of the effects of changing the *structure* of child income support,

[31] Families without children are generally unaffected by the reform options under consideration, and therefore results for such families do not appear in the tables.

for a given *level* of child income support. Taking the "uprated" Budget 2000 policy as the basis for comparison, the distributional effects associated with changing the structure of child income support in the policy option are presented in Table 3.6.

Table 3.6: Average Percentage Change in Family Disposable Income by Equivalised Income Decile – Policy Option Compared with Uprated Budget 2000 Policy

Decile	Percentage Gain	Absolute Gain (£ per week)
Bottom	1.0	0.36
2nd	-0.0	-0.03
3rd	-1.3	-1.58
4th	-1.6	-2.49
5th	-0.6	-1.30
6th	-0.1	-0.27
7th	0.1	0.26
8th	0.4	1.40
9th	0.4	1.90
Top	0.2	1.57

The results in Table 3.6 show the effects of changing the structure of child income support, for a given level of support. The structure detailed in the policy option yields a 1 per cent gain in average equivalised disposable income for the bottom decile, and gains of 0.4 per cent or less for the top four deciles of the equivalised income distribution. This outcome reflects the greater emphasis on child benefit in the proposed policy option. Deciles three and four experience losses of 1.3 per cent and 1.6 per cent respectively, whilst deciles five and six record smaller losses on average. This implies that without increasing the level of child income support, families benefiting from existing policies like FIS and the home carer's tax allowance do marginally better under the existing structure relative to the policy option structure. This conclusion is also supported by the results for absolute changes in disposable income. In terms of overall distributional effects, the structure of child income support under the policy option is comparable to the existing system, with a degree of redistribution from the lower-middle section of the income distribution to the very bottom and upper sections. That is, the structure of the existing system is more effective in targeting the lower-middle section of the income distribution, but does not target the very bottom of the income distribution as well as the policy option.

In terms of the impact on child relative income poverty, Table 3.7 shows the effects of changing the structure of child income support, for a given level of support. Compared to the policy option, spending an additional £497.5 million per annum on the existing structure of child income support would be more effective in reducing child relative income poverty, although the differentials are not as pronounced for less extreme poverty levels. More specifically, compared to the policy option, spending the additional funds on the existing structure would lead to a significant reduction in the number of children living in very poor households (7.3 per cent compared to 8.4 per cent, representing 12,500 children). For the 50 per cent and 60 per cent relative poverty lines, an estimated additional 2,900 children and 3,800 children would be brought above the relative poverty line respectively if the extra funds were spent on the existing

structure compared to the policy option. This suggests that the targeted policy instruments in the existing structure of child income support do have an impact on alleviating child relative income poverty, and shifting the emphasis from targeted policies to universal child benefit might not be as effective in terms of tackling child poverty.

Table 3.7: Percentage of Children in Households below Various Relative Income Lines

Relative Income Line	Budget 2000	Uprated Budget 2000	Policy option
40%	10.0	7.3	8.4
50%	24.3	24.1	24.3
60%	34.9	34.6	34.9

When the results are analysed by family type (see Table 3.8), dual earner couples with children are the primary beneficiaries of the policy option structure detailed above, assuming no change in the overall level of child income support provided by the government. Dual earner couples with children record average percentage gains of 2.1 per cent (£12.88 per week) or 1 per cent (£5.09 per week) when a relative is assisting. However, the revenue-neutral replacement of the existing structure with the proposed structure yields average percentage losses of between 1.1 per cent and 3.7 per cent for all other family types with

Table 3.8: Percentage Change in Average Family Disposable Income by Family Type – Policy Option Compared with Uprated Budget 2000 Policy

Family Type	Percentage Gain	Average Gain (£ per week)
Employed lone parent	-2.0	-5.60
Non-earning lone parent	-3.7	-5.46
Single earner couple with children	-1.1	-5.52
Dual earner couple with children	2.1	12.88
Dual earner couple with relative assisting	1.0	5.09
Non-earning couple, at least one Unemployed, with children	-3.7	-8.64

children, translating to average weekly losses of between £5.46 and £8.64. Hence, for a given level of overall child income support, the policy option structure benefits dual earner couples with children, but not other family types with children.

Overall, the policy option delivers substantial gains to families with children, suggesting that the policy option could make a significant contribution to objectives such as providing childcare support. In addition, poorer families benefit more relative to their income than do richer families, particularly families at the very bottom of the income distribution. However, absolute gains were greater for wealthier families, and the policy option did not have a massive impact in terms of reducing child poverty. This suggests that the policy could be better targeted towards poorer households. Comparing the policy option with the scenario in which the existing structure of child income support is maintained but the overall level of support is increased to £497.5 million per annum also yields some interesting insights. The revenue-neutral comparison suggests that the proposed structure slightly redistributes income from families in the lower-

middle part of the income distribution to families at the very bottom and top of the income distribution, although the extent of the redistribution is not large. The "uprated" existing structure was also more effective in terms of alleviating child poverty, particularly in the case of extreme poverty. When the distributional analysis is conducted by family type, results from the revenue-neutral comparison suggest that the proposed structure redistributes income towards dual earner couples.

3.6.4 FINANCIAL INCENTIVES TO WORK

The issues of poverty and unemployment traps are of significant importance in terms of child welfare, especially as two-thirds of poor children are to be found in out-of-work families. In the Irish context, the withdrawal of means-tested benefits and FIS as individuals increase earnings can provide strong disincentives to enter employment or increase labour supply. It is possible to examine the effects of the policy option on financial incentives to work by estimating replacement rates for families. This section compares replacement rates calculated under the policy option with replacement rates calculated under the post Budget 2000 policy.

Following Callan *et al.* (1997a), the financial incentive for an individual to move from unemployment into employment can be viewed as depending on the family's disposable income when the individual is unemployed and the family's disposable income when the individual is employed. The focus is on the effect on family income, in order to take account of the possible impact of an individual's move from unemployment to employment on the social welfare entitlements and income tax liabilities of his or her spouse or partner. The replacement rate summarises this information by taking out-of-work income as a proportion of in-work income:

$$RR = \frac{Out\ of\ work\ family\ disposable\ income}{In\ work\ family\ disposable\ income}$$

Thus, an individual might find that family net income when he or she is unemployed is £120 per week, but that on taking up a particular job that family net income would rise to £200 per week. The replacement rate in this situation would be 60 per cent.

Using *SWITCH*, it is possible to estimate replacement rates for a representative sample of households, and the issues involved in this process are discussed in detail in Callan *et al.* (1997a). In the context of the present study, an important assumption underlying the estimation of replacement rates is the take-up of FIS. It has been estimated that perhaps only one-third of those entitled to FIS are actually in receipt of the payment (Callan *et al.* 1997b). However, if FIS take-up is actually higher, then replacement rates in the Budget 2000 setting will be lower for some families, as their in-work income will be higher. Consequently, replacement rates in the Budget 2000 setting and the policy option setting are compared under two assumptions: one-third of entitled families take-up FIS and full take-up of FIS.

It should also be noted that given the additional expenditure on benefits in the policy option relative to Budget 2000, it might be expected that replacement rates are higher in the policy option setting. This would

be the case even for a policy that only increased child benefit. For example, consider a lone parent with an out-of-work income of £100 (including £20 child benefit), who could earn £130 if in paid employment and retain the £20 child benefit. The replacement rate for this individual is therefore 67 per cent (i.e. 100/150). If the government then doubled child benefit, the individual would face a higher replacement rate of 71 per cent (i.e. 120/170). Hence, even though the benefit is fully retained by the individual, the replacement rate measure increases. In terms of the present study, if the additional expenditure under the policy option setting does not lead to a significant increase in replacement rates, then the financial incentives to work are likely to have increased as a result of the combination of measures introduced in the policy option.

The distribution of replacement rates in the Budget 2000 and policy option scenarios, assuming one-third of entitled households actually take-up FIS, are reported by labour force status in Table 3.9. Focusing first on the unemployed, 16.2 per cent of individuals face replacement rates in excess of 70 per cent (a benchmark commonly adopted to identify high replacement rates) in the Budget 2000 setting. This figure increases marginally to 17.6 per cent under the policy option. For employed individuals, those facing replacement rates in excess of 70 per cent also increased slightly from 13.9 per cent to 15.1 per cent. The corresponding figures for individuals engaged in home duties show that the proportion of people facing replacement rates in excess of 70 per cent actually fell slightly from 37.1 per cent to 36.6 per cent. Hence, the distribution of replacement rates is not significantly affected by the policy option, even though a significant amount of additional expenditure is involved. Given the preceding discussion about the effects of increased child benefit expenditure on replacement rates, this suggests that work incentives are likely to be improved under the policy option.

Is this outcome affected by the assumption of low FIS take-up? Assuming full take-up of FIS, the Budget 2000 setting would be expected to increase the in-work income of a number of families and therefore decrease replacement rates. Given that FIS is abolished in the policy option, the distribution of replacement rates under the policy option setting will not be affected. In order to analyse this issue, replacement rates were calculated for the Budget 2000 setting under the assumption that all entitled families actually take-up FIS. This resulted in only very slight changes to the proportion of individuals facing replacement rates in excess of 70 per cent, and therefore did not affect the conclusions reached under the assumption of partial FIS take-up.

Table 3.9: Distribution of Replacement Rates by Labour Force Status – Policy Option Compared with Budget 2000 Policy: One-Third FIS Take-Up

Replacement Rate (%)	Employee		Unemployed		Home Duties	
	Budget 2000	Policy Option	Budget 2000	Policy Option	Budget 2000	Policy Option
0<10	3.4	3.4	1.6	1.6	0.3	0.3
10<20	5.3	5.1	5.6	5.6	0.3	0.3
20<30	18.1	16.9	16.1	16.2	3.4	3.3
30<40	18.5	18.2	21.0	20.1	8.3	6.7
40<50	14.8	14.9	17.4	16.9	16.0	15.6
50<60	14.4	14.5	13.1	14.2	14.4	15.9

60<70	11.4	11.8	8.8	7.9	20.3	21.3
70<80	6.4	6.8	5.9	6.0	19.1	19.8
80<90	4.1	4.6	5.3	6.5	14.3	14.1
90<100	2.3	2.4	2.8	2.8	3.3	2.5
Over 100	1.1	1.3	2.2	2.3	0.4	0.2
Total	100	100	100	100	100	100

Note: Analysis does not include individuals receiving a combination of both unemployment compensation and earnings from employment. See Callan *et al.* (1997a).

Once again, it is important to differentiate between the overall increase in the level of child income support and the change in the structure of child income support in the policy option. That is, when evaluating the impact on work incentives of the changes to the structure of child income support in the policy option, it is meaningful to compare the policy option with the existing structure uprated to achieve a £497.5 million increase in the overall level of child income support. Consequently, the "uprated" Budget 2000 policy described in the preceding section is used as the basis for a revenue-neutral comparison of the effects of the policy option on replacement rates. The results are reported in Table 3.10. Beginning with the unemployed, 18.8 per cent of individuals face replacement rates in excess of 70 per cent in the uprated Budget 2000 setting, compared with 17.6 per cent in the policy option setting. For employed individuals, 15.3 per cent face replacement rates in excess of 70 per cent in the uprated Budget 2000 setting, compared with 15.1 per cent under the policy option. The corresponding figures for individuals engaged in home duties show that the proportion of people facing replacement rates in excess of 70 per cent in the uprated Budget 2000 setting was 40.8 per cent, compared to 36.6 per cent in the policy option setting. Hence, in terms of the impact on work incentives, the structure of child income support in the policy option appears preferable to the existing policy regime. This outcome is most pronounced for individuals engaged in home duties.

The policy option places a greater emphasis on child benefit as a mechanism for providing child income support and provides a substantial increase in the level of support. Recall the impact on replacement rates of increasing the level of child benefit: out-of-work income increases proportionately more than in-work income for those with replacement rates less than 100 per cent, such that replacement rates increase. However, analysis reveals that replacement rates are not significantly affected by the policy option. Furthermore, the revenue-neutral comparison of the "uprated" Budget 2000 policy and the policy option reveals that the structure of child income support in the policy option is preferable in terms of the impact on work incentives. These outcomes suggest that the policy option improves financial incentives to work by removing the distortionary impact of tax allowances and FIS, and reducing the distortionary impact of means-tested benefits.

Table 3.10: Distribution of Replacement Rates by Labour Force Status – Policy Option Compared with Uprated Budget 2000 Policy: One-Third FIS Take-up

Replacement Rate (%)	Employee		Unemployed		Home Duties	
	"Uprated" Budget 2000	Policy Option	"Uprated" Budget 2000	Policy Option	"Uprated" Budget 2000	Policy Option

0<10	3.4	3.4	1.6	1.6	0.3	0.3
10<20	5.2	5.1	5.6	5.6	0.3	0.3
20<30	17.0	16.9	15.5	16.2	3.3	3.3
30<40	18.2	18.2	20.7	20.1	4.7	6.7
40<50	14.6	14.9	16.2	16.9	16.3	15.6
50<60	14.3	14.5	13.5	14.2	15.2	15.9
60<70	12.2	11.8	8.1	7.9	19.0	21.3
70<80	7.0	6.8	7.2	6.0	19.9	19.8
80<90	4.4	4.6	5.0	6.5	16.3	14.1
90<100	2.5	2.4	3.3	2.8	3.9	2.5
Over 100	1.4	1.3	3.3	2.3	0.7	0.2
Total	100	100	100	100	100	100

Note: Analysis does not include individuals receiving a combination of both unemployment compensation and earnings from employment. See Callan *et al.* (1997a).

3.6.5 GOVERNMENT BUDGET EFFECTS AND TARGETING OF EXPENDITURE

The overall cost of the policy option is estimated in *SWITCH* to be £497.5 million per annum. This is calculated under the assumption that one-third of eligible households take-up FIS. If more than one-third of households in Ireland are actually receiving FIS, then the cost to the government of the policy option will be reduced, as the savings from abolishing FIS will be greater. In addition, *SWITCH* assumes that labour market behaviour is unchanged after the policy option is implemented. If the financial incentives to work are improved by the policy option, as has been argued in the preceding section, then individuals may choose to enter employment or increase their hours of work. Consequently, the cost of the policy option to the government could be reduced as income tax revenues increase and social welfare dependency decreases.

A final issue is the targeting of the increased government spending. Is the additional spending spread evenly across the income distribution, or is it disproportionately directed to groups at different income levels? To analyse this issue, the allocation of the net increase in government spending across the income distribution is presented in Table 3.11.

Table 3.11: Allocation of Additional Spending Across Households by (Equivalised) Disposable Income Decile

Decile	Percentage of additional spending received by decile
Bottom	5.7
2nd	13.0
3rd	4.7
4th	5.8
5th	10.2
6th	14.2
7th	12.0
8th	12.9
9th	11.8
Top	9.8

From Table 3.11, it can be seen that the top decile receives just under 10 per cent of the increase in government spending in the policy option setting, but the bottom decile receives only 5.7 per cent. The top half of

the income distribution receive 60.7 per cent of the increase in spending, whilst the lower half of the distribution receives 39.3 per cent. This suggests that wealthier families are receiving a disproportionately higher share of the additional government expenditure. This outcome is not surprising given the nature of the policy option. More specifically, all households are receiving substantial increases in child benefit. However, schemes such as FIS and the home carer's tax allowance have been abolished and all means-tested CDAs have been reduced to the existing minimum rate; such schemes generally benefit households in the lower part of the income distribution. Hence, although poorer families experience greater gains relative to their income under the policy option (see Table 3.3), the overall increase in government expenditure is directed more towards the upper end of the income distribution. This suggests that the policy option is not well targeted in terms of directing additional resources towards the poor. If alleviating child poverty is the exclusive policy priority, then this outcome might not be considered satisfactory.

In this context, it has been argued that part of the cost of substantially increasing child benefit could be recovered by making it subject to income tax (e.g. Nolan, 1993; Callan *et al.*, 1995). This would not affect families at the very bottom of the distribution and would impact on families in the tax net in line with the progressivity of the income tax system. Following Nolan (2000, p. 92), the fact that "child benefit is normally paid to the mother and that the income tax system is being moved towards greater individualisation does not weaken this case". Nolan refers to the UK, where assessments of policy options (e.g. Clark and McCrae, 1998) suggest that within a predominantly individualised system, it is still possible to treat child benefit as joint income of the couple. For example, child benefit could be taxed at the marginal rate of the partner with the highest marginal tax rate. A more easily administered and transparent alternative for targeting purposes is to restrict the transferability of tax bands between married couples. This option has been highlighted in a number of official policy reports, though its political acceptability has not been fully tested. However, having breached the individualisation logjam in Budget 2000, popular support for this option may be more forthcoming, especially if the savings are hypothecated for redistribution to children and families.

3.7 Conclusions

This paper has reviewed the instruments and objectives of child income support policy in Ireland and the UK. It highlights the *ad hoc* and segmented nature of policy, with a considerable dispersion of resources under various policy guises and instruments. The four main drivers of child income policy reveal a number of problematical issues, including low level of payments, labour market inefficiencies and optimum targeting of resources. Drawing on this analysis, the paper sets out key policy issues which are demonstrated in a detailed policy option involving increased expenditure and restructured provision. This policy option is critically analysed in terms of its effects on the distribution of income, financial incentives to work and government revenue. The policy option is shown to benefit households in the lower part of the income distribution relative to their income, particularly households at the very bottom of the distribution. The greater emphasis on child benefit is also likely to alleviate

unemployment and poverty traps brought about by schemes such as FIS and various means-tested benefits. However, the policy option resulted in higher absolute gains to wealthier households and did not have a major impact on alleviating child poverty. Such outcomes suggest that the policy option is not well targeted towards households at the bottom of the income distribution.

The simple and transparent policy option outlined in this paper illustrates many of the concerns that dominate debate about child income support and suggests a number of policy pointers. First, CDAs still have a key role to play in tackling child poverty. Our policy option abolished CDAs for families on social insurance schemes, many of whom clearly would qualify for a means-tested child payment. It also reduced the rate to £13.20 for all means-tested CDAs, but this is not adequately compensated for by the higher child benefit rates for the second plus child to lift poor children in larger families out of poverty. Increasing all CDAs to the higher rate along with a more substantial child benefit maybe required. Second, a considerable amount of additional resources are going to children in better-off families. Some way of clawing back a portion of this increase and re-investing it in an even higher child benefit would give a more targeted approach. Third, our policy focus is on children; higher additional support for low income parents is also required if the living standards of poor children are to be improved. Fourth, the importance of paid parental work as an antidote to child poverty is emphasised. The increase in employment arising from the improved work incentives under the policy option is not reflected in the child poverty figures. Additional measures in relation to childcare, such as a childcare disregard under FIS and subsidised provision of childcare in poor neighbourhoods, would further assist access to paid work and thereby reduce child poverty.

Ireland by European standards has a serious and persistent problem of child poverty, which is unlikely to be tackled by economic growth alone giving its underlying causes. The government has expressed its commitment to increase support for children and given its current fiscal position and falling child dependency is extremely well placed to do so. However, it remains ambiguous about a major redistributive tax/welfare strategy, describing this as "mechanistic" and preferring investment in jobs and educational opportunities as a means of creating opportunity for all. But child poverty is not just a transitory problem: it reflects structural issues including weaknesses in our tax/welfare policies. Ultimately, policy will have to redistribute more resources to families on welfare and low pay if child poverty is to be addressed. Government would be foolish to ignore the bigger picture about tackling income inequalities, including tax reform, if the welfare of all children is to be enhanced.

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4. REGIONALISATION AND THE FUNCTIONS OF REGIONAL AND LOCAL GOVERNMENT

Edgar Morgenroth[32]

4.1 Introduction

Despite the dramatic economic recovery over recent years, regional differences persist and are, in the case of some variables growing.[33] For this reason regional policy has gained added importance in government policy. An indication of this is the inclusion of specific regional objectives and policies in the National Development Plan 2000-2006.[34] Also, as part of this, there has been a shift away from designating the whole country as *Objective 1* to a regionalised approach to Structural Fund aid.

The decision to divide the country into two regions for the purposes of EU funding has generated yet another level of local/regional administration. However, the establishment of two new regional assemblies and the previous establishment of the eight regional authorities in 1994 has not been accompanied by any meaningful reallocation of responsibilities between the different levels of government. This raises the question as to whether the responsibilities of the different levels of government have been allocated efficiently and whether there are too many levels of government.

This paper deals with the current roles of the various layers of local and regional administration in Ireland in terms of economic efficiency arguments. Within this objective it asks which regional development functions and policies should be carried out by each layer of government. Such an analysis is not unique. For instance the roles and the financing of

32 The author would like to thank Alan Barrett, John Bradley, John Fitz Gerald, David Madden, Brian Nolan and Brendan Whelan for helpful comments on earlier drafts of the paper. Naturally, the author alone is responsible for all remaining errors and shortcomings.

33 For example there is clear evidence of divergence in regional Gross Value Added (GVA) among the regions. Furthermore, there are significant differences in industrial structure between the regions and counties (see Bradley and Morgenroth, 1999).

34 These are largely in line with the recommendations contained in the ESRI report on *Investment Priorities 2000-2006* (Fitz Gerald, Kearney, Morgenroth and Smyth, 1999).

local government have been examined before in the Barrington Report (see Advisory Expert Committee, 1991). However, a re-examination of the issues is warranted for a number of reasons. First, the growing emphasis on regional development is likely to result in significant increases of funding for such regional development, and as such the institutional role of sub-national governments will become more important. Second, this analysis is warranted in context of the establishment of the regional authorities and regional assemblies which have taken place since the publication of that report. Finally, this analysis is particularly timely in the context of current moves to reform local government (see Department of the Environment and Local Government, 2000).

In order to focus the analysis we will draw particularly on the extensive literature on fiscal federalism, but will also refer to the literature on public goods and public finance. The literature on fiscal federalism is not simply concerned with the functioning of federations in the strict sense of the word but rather it encompasses all relations between different vertical levels of government. This literature is particularly interesting for the purposes of our analysis since it focuses on achieving economic efficiency through the appropriate allocation of roles among the different levels of government. Of course, arguments for and against decentralisation of government functions can be made based on other more political concepts, such as subsidiarity, local empowerment and political accountability. However, a full discussion of these arguments is beyond the scope of this paper and reference to the concepts is only made in passing.

The remainder of the paper is organised as follows. Section 4.2 reviews the results of the fiscal federalism literature regarding the role and financing of different layers of government, Section 4.3 outlines the current division of responsibilities among the different layers of Irish government and how the different layers are financed. In Section 4.4 changes to the assignment of responsibilities are considered and the final section will summarise the results of the paper.

4.2 Economic Literature

In this section we outline the results of economic theory regarding the division of responsibilities among the different vertical layers of government. Here the focus is particularly on the literature on fiscal federalism, the main results of which will be discussed.

Before we turn to the division of responsibilities among the different layers of government it is useful to briefly outline the functions of government in general as well as the rationale and nature of regional policy.

As outlined by Musgrave (1959), there are a number of reasons why it is desirable to have a government. Specifically, he argued that without government an economy is unlikely to maintain high and stable levels of output, high and stable levels of employment and stable prices. He reasoned along Keyensian lines, that if an economy is left to its own devices this is likely to result in cyclical fluctuations in output, employment and prices as resources are under- or over-utilised at different points in time. Resources are likely to be misallocated due to positive externalities in the provision of public goods or negative externalities arising from the allocation of other resources (e.g. pollution), market failures, incomplete markets and information failures. Thus, for instance defence or a justice

system, which affect the whole population, could not be provided by individuals alone. Finally, he argued that without government there was unlikely to be an equitable distribution of income and resources. The distribution of income is likely to be inequitable since this depends on the ownership of resources as well as the structure of the economy and these will only yield an equitable outcome by chance. Thus, the functions of government can be summarised as being:

1. Stabilisation
2. Allocation
3. Redistribution

The rationale for regional policy can be established along similar lines. Regional policy is usually aimed at reducing unemployment, particularly in unemployment blackspots, tackling large regional income differences (poverty), reducing congestion, fostering a more balance geographical distribution of economic activities and promoting regional growth and development.

There are a number of reasons why regional differences in the unemployment rate require government intervention. First, if there are factors which reduce the mobility of individuals then market forces may not be sufficient to induce the unemployed of one region to move to a region where they would find employment. Similarly, investment may not move to regions with excess workers, perhaps since wages are determined through central bargaining which could result in regional wage levels not reflecting labour market conditions in that particular region. Finally, the long-term unemployed may effectively not be in the labour market due to skill shortages, and a high level of long-term unemployment may therefore not have a significant effect on the labour market. Thus, the failure of regional labour markets to work efficiently justifies government intervention that should aim to correct the allocative inefficiencies. Closely related to high levels of unemployment is a high level of poverty which is often concentrated in particular areas (see Nolan, Whelan and Williams, 1998). The alleviation of poverty can be achieved through labour market interventions, however, other redistributive policies will typically also be required.

Regional policy is usually aimed at increasing growth in the weaker regions. This is of course strongly linked to the issue of poverty and unemployment as well as congestion. The types of policy usually used in this regard include the provision of goods and services that make the region more attractive to investors, such as infrastructure. Furthermore, industrial policy is often used to increase regional growth, by providing higher grant rates (or subsidies) in weaker regions, and the provision of advance factories in order to entice industry into these regions. The argument for such regional policies can be made on efficiency grounds related to the congestion issue outlined above.[35] Furthermore, if particular regions lag behind the wage rates in these regions may be depressed. As a consequence, their more highly skilled mobile inhabitants may well migrate to the more prosperous regions (brain drain), leading to a negative cycle of

[35] Of course there are strong political grounds for regional policy.

cumulative causation, which can only be stopped through effective government policies.

The role of government then is to ensure that the weaker regions are attractive to industry. This can be achieved through the provision of those goods and services that are not provided by market activities, but which are required by industry in order to improve the attractiveness of a weaker region for industry. This may involve the provision of goods and services (either directly or through subsidies) which would not be publicly provided in the stronger regions. The literature on endogenous growth (see Hammond and Rodriguez-Clare, 1993) indicates that there are particular growth benefits through the development of infrastructure, research and development, and human capital, which create externalities that have a long-run positive impact on the growth rate of a region/country.[36]

The reduction of congestion such as road congestion tackles the allocative inefficiency caused by the unpriced negative externality associated with vehicle usage. Congestion should be viewed in a wider sense since this is likely to be the result of excessive agglomeration of both population and industry. For this reason policies that generate a more balanced distribution of economic activity and population will, apart from yielding more employment opportunities outside the large urban centres, also reduce congestion in these centres. As such anti-congestion measures can also help in fostering development in the less congested weaker regions. However, since there are positive aspects for industry in agglomeration, too much dispersal will result in a sub-optimal level of economic activity. As in the example of unemployment it is the market failure associated with the externality from vehicle usage that justifies government intervention. Similar market failures also occur in the case of pollution and the provision of public goods.

Overall the regional policies as discussed above are economically justified if they address these various market failures. Therefore, such regional policies should have a strong allocative character while there is a more limited role for redistributive policies. These policies may also fulfil a stabilisation role since they address regional differences which may be due to region specific shocks. As such they also fit into Musgrave's taxonomy which will be utilised again in the next section.

4.2.1 THE DIVISION OF RESPONSIBILITIES AMONG JURISDICTIONS

Which level of government best fulfils these functions? This question can be answered by identifying the reasons that make such interventions necessary and by identifying the type policy interventions that are required to achieve the objectives (functions) of government. Of course, as a small open economy Ireland has only limited scope for effective independent policy interventions particularly in relation to stabilisation. Also, increasing European integration will further diminish the number of policy instruments that are available. These limitations are even more significant at the regional or local level.

[36] This type of reasoning gave rise to the nature of the EU Structural Funds programmes.

Stabilisation

Stabilisation is often aimed at counteracting external shocks and usually requires macroeconomic policies using fiscal and monetary tools. However, local and regional government does not have access to monetary policy tools which severely curtails the scope of these levels of government to effectively stabilise the regional economy. Stabilisation is typically counter-cyclical which means that extra resources are used during a recession to stimulate demand while in times of plenty the involvement of government in the economy contracts.[37] Since lower levels of government are usually forced to balance their budget they are severely constrained in pursuing such policies, except if they accumulate revenues during good times that will be used as a type of "stabilisation fund" during difficult times.[38] If shocks are asymmetric, that is if they hit only one region without affecting the other regions in a country then centralised stabilisation allows the risk of suffering a shock to be shared between all regions (Alesina, Perotti and Spolaore, 1995). As such, central stabilisation policies act as a form of insurance.

Another reason why local and regional government's effectiveness in stabilisation policies would be limited is due to the extreme openness of regional economies through trade, capital mobility and migration. This openness reduces the size of the Keynesian multiplier as the benefits of an intervention "leak" out of the regions.

All these reasons are likely to make stabilisation ineffective even when there are large differences in terms of unemployment or income between regions (see Rubinfeld, 1987). Overall this implies that stabilisation is best carried out at the central government level.

However, there are also arguments in favour of decentralised stabilisation policies. For example, if shocks are highly asymmetric there may nevertheless be a role for local or regional government in stabilisation policies.[39] In such a situation the role of central government may be severely curtailed since this may interfere with its general role of stabilising national output and employment and this may then require very specific interventions by the regional government (see Gramlich, 1987). Such reasoning may also give sub-national government a role in policies aimed at achieving convergence between the regions. This may require specific policies at the regional level, particularly in the weaker regions. Also, if stabilisation is carried out by central government then there exists a moral

[37] In practice Irish government policy is highly pro-cyclical which amplifies fluctuations in economic activity and prices (see Duffy et al., 2000 and Lane, 1998).

[38] In the case where local or regional government can run deficits and where the central government will "bail out" regional government, a moral hazard problem emerges, which may lead regional governments to run a large deficit which later has to be paid for by all inhabitants of a country. For this reason many constitutions rule out deficits at the local or regional level. An exception to this is Germany (see Seitz, 1999).

[39] Bayoumi and Masson (1995) find that the stabilisation policies carried out by national governments in Europe have been relatively successful. They thus argue against stabilisation policies organised at the central EU level. In how far this argument carries over to the role of regional government within countries in stabilisation policies is questionable.

hazard problem since lower tiers of government may pursue policies which leave their territory more liable to shocks (Persson and Tabellini, 1996a).

Allocation

The allocation of resources was the subject of the classic contributions of Tiebout (1956), Olsen (1968) and Oates (1972). The Tiebout model is a highly stylised model in which model individuals are mobile between jurisdictions and these jurisdictions provide different bundles of local public goods and taxes. The individuals then choose according to their preferences where to locate given the "fiscal bundles" provided by these local jurisdictions. If a particular jurisdiction is inefficient in the provision of public goods individuals would move away from it since this would lead to higher taxes. Here the existence of decentralised government is based on differences in preferences among the population whose mobility leads the different jurisdictions to compete for individuals. Each region will then be populated by a relatively homogenous population since individuals select where to live according to preferences and the fiscal bundles offered by the jurisdictions. It can be shown that such a mechanism would lead to an efficient outcome. However, subsequent research which has used more general versions of the Tiebout model show that under more realistic assumptions an efficient outcome is unlikely to be achieved (see Rubinfeld, 1987).[40]

While the Tiebout model is based on the mobility and preference of individuals it is also possible to make a case for decentralised government without assumptions about mobility. One argument is that central provision of public goods typically involves a uniform supply of these goods which ignores local and regional differences in preferences and requirements (see Oates, 1972). Such differences are best addressed at the local and regional level where they are more accurately identified. This is particularly the case if public goods are only of benefit at the local level, i.e. they are not pure public goods. In such a case, the roles should be assigned according to the extent of externalities which allows local governments to better design and target those activities with localised spillovers with more precision and therefore maximise well being (see Olsen 1968). This is encapsulated in the *Decentralisation Theorem* which was put forward by Oates (1972). This theorem states that the provision of local public goods, i.e. those for which the benefits are defined over a restricted geographic area, will never be less efficient if organised at the local/regional level than if organised at the national level.

The central government is then left with the role of providing those public goods which provide a benefit to every inhabitant of the country, such as defence or foreign affairs (see Gordon, 1983).[41] The central government is also more useful if spillovers occur across the boundaries of the local communities which would result in the under-provision of the

[40] The generalisations of the model encompass the inclusion of property market capitalisation of public goods provision, income differences, property taxes, congestion, moving costs and imperfect information (see Rubinfeld, 1987).

[41] The fact that defence is not provided efficiently by decentralised decision making was shown by Olsen and Zeckhauser (1966).

good or service since all the benefits are not taken into account by the lower tiers of government.[42] This inefficiency may be addressed by central government co-ordination of lower tier activities. In general, the literature suggests that the services which can be provided efficiently by lower tiers of government include education, police, fire protection, sanitation, recreation and public health.

Redistribution

The final role of government was identified above as redistribution, both between individuals within the regions as well as between regions generally. The latter encompasses the various regional policies which are aimed at improving aggregate measures of welfare for the poorer regions.

Redistribution between individuals involves taxing the richer section of the population, the revenue of which will then be spent on the poorer section of the population either in direct transfers (e.g. social welfare) or through subsidies (e.g. subsidised housing).

Of course redistribution is only necessary if the population is heterogeneous with regard to income. A version of the Tiebout model where individuals differ according to income but have the same preferences indicates that in such a case a high level of income homogeneity among the populations within the various regions will result, rendering redistribution unnecessary (Rubinfeld, 1987). However, such a clean solution does not exist in practice and thus the population is typically heterogeneous both in terms of income as well as preferences.

The case against decentralised redistribution policies can also be made without reliance on such stylised models as the Tiebout model. For example, if individuals are mobile between jurisdictions, a more generous level of redistribution would draw more poor people into the region if there are no obstacles to internal migration.[43] This would increase the burden on the richer section of the population in that region which then has an incentive to move to a region where the tax burden is smaller. Consequently, there is an incentive for local and regional governments to minimise the level of redistribution which, if all jurisdictions act in this way, would result in too low a level of redistribution, unless central government sets some minimum standard. This outcome is particularly likely if the jurisdictions are small, thus increasing the possibility that its inhabitants migrate across its boundaries to another jurisdiction. Another argument against local redistribution is that if this is funded from the centre then such redistribution measures can be abused for political reasons, resulting in excessive redistribution (Alesina, Perotti and Spolaore, 1995).

However, an argument in favour of decentralised redistribution policies is that there may be greater concern at the local level about the local poor. The existence of such a "warm glow" effect makes redistribution a pure

[42] It is well known that such spillovers result in under-provision of public goods (see Cornes and Sandler, 1996, and Bougheas, Demetriades and Morgenroth, 2000).

[43] Empirical evidence appears to suggest that such mobility is indeed a factor (see Brown and Oates, 1987).

local public good which suggests that there may be some role for local and regional government (see Pauly, 1973). As such centralised redistribution fails to properly reflect local preferences due to the aggregation over preferences nationally (Alesina and Perrotti, 1998). Also the identification of redistribution needs is likely to be more accurate at the local level, particularly if the allocation of resources to individuals involves means testing. Finally, centralised redistribution could lead to larger disincentive effects if rates are set uniformly across space. In such a situation replacement rates may be too high for individuals to seek work, especially if they live in an area with low wages.[44]

In summary however, the balance of the argument appears to be in favour of the view that redistribution should also be carried out largely at the central government level with perhaps a minor role for local and regional government. Furthermore, the role of local and regional government in stabilisation is also limited. However, the above discussion indicates that these levels of government have a significant role to play in the allocation of resources, particularly local public goods.

4.3 Local and Regional Government in Ireland

This section is concerned with the number and functions of the different vertical layers of government. In addition to this a brief outline of issues relating to the financing of sub-national levels of government is provided. This issue is of direct relevance to this paper which is largely concerned with functions of sub-national levels of government, since the division of such functions has a direct bearing on the financing question.[45]

The economic literature suggests that the number of local governments should be decided on the basis of the extent of the benefits of the local public good and the scale economies in the provision of local public goods and services (see Olsen, 1968). Indeed such reasoning suggests that there should be one layer of government for every local public good if these have a differing geographical extent. However, more recently it has been shown that this is not the case and that instead local or regional governments should have jurisdiction over all market areas of all local public goods (Hochman, Pines and Thisse, 1995). This analysis also indicates that the provision of these local public goods should be financed through user charges and land rents (rates).

There are good reasons to suggest that the provision of local public goods should be financed through locally raised revenue. Otherwise, if local public goods provision is financed from central revenues, there is an incentive for local or regional government to extend the level of public services further than if it were financed from local revenues since the cost of this oversupply would be disproportionately borne by the inhabitants of other jurisdictions. Similarly, if central transfers are based on the output

[44] This is a case where government policy results in the type of market failure which government policy ought to remove. A solution to such a problem could involve varying the levels of redistribution according to the local cost of living.

[45] This issue has been dealt with in a number of studies (see Foundation for Fiscal Studies, (1990), Advisory Expert Committee, (1991) and Ridge, (1992, 1994)).

rather than the cost of production of local public goods which is usually not perfectly observed by central government then there emerge moral hazard problems which can result in some jurisdictions attracting higher transfers than are justified (Cornes and Silva, 1998). Thus, if local public goods are supplied through a decentralised government structure, the cost of provision should also, at least to a large extent, be borne at the local level.

Local charges are also justified due to externalities. Thus, for instance, the cost of supplying utilities such as water or waste disposal should be borne locally, since direct charges for these services will provide an incentive for individuals to minimise resource usage, such as water usage or waste production which adds to waste disposal problems.

Redistribution policies can be financed in a number of ways if they are decentralised. First, they can be financed entirely through locally raised revenue, which means taxing the rich in one region to give to the poor of that region (between individuals). This has the disadvantage that already poor regions have a smaller tax base than richer regions, and they will therefore have to tax their richer population more heavily if they want to provide the same level of redistribution as richer regions. As outlined above, this may give an incentive to the richer population to migrate to a neighbouring jurisdiction that has lower tax rates. Second, if redistribution is funded through intergovernmental transfers then this again involves one dimension only (between regions). In such a system the richer regions have an incentive to understate their wealth in order to pay less, resulting in under-insurance. Finally, redistribution through centralised social insurance involves transfers along two dimensions (between rich and poor and between regions). This makes the system less transparent since individuals can not observe whether their contributions go to their local poor or those in another region. In such a situation there will be over-insurance (Persson and Tabellini, 1996b).

Overall 5 layers of government can be identified which are distinguished through different spatial coverage. These consist of:

- 1 Central Government (15 Departments);
- 2 Regional Assemblies;
- 8 Regional Authorities;[46]
- 29 County Councils, 5 County Boroughs, 5 Borough Corporations;
- 49 Urban District Councils, 26 Boards of Town Commissioners.

Overall there are well over 100 governments (in the wider sense of the word) in Ireland of varying extent and power. In addition to these levels of government there also exist semi-state bodies and other authorities, such as Fisheries Boards, VECs, County Development Boards and Port

[46] The regional authorities are made up as follows: Border (Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth); Dublin (Dublin, Dun Laoghaire-Rathdown, Fingal and South Dublin); Mid East (Meath, Kildare and Wicklow); Midlands (Longford, Westmeath, Offaly and Laois); Mid West (Clare, Limerick and Tipperary NR); South East (Carlow, Kilkenny, Tipperary SR., Wexford and Waterford); South West (Kerry and Cork) and West (Mayo, Roscommon and Galway). The regional assemblies are in turn made up of a set of regional authorities: (a) Border, Midlands and West, and (b) Dublin, Mid-East, South-East, Mid-West, and South West.

Authorities that could also be added to this list of governments. Compared to jurisdictions of a similar size to Ireland, the number of regional and local administrations is very limited. For example, the German Federal State of Rheinland-Pfalz (population of 4 million) has no less than 2,344 "governments"![47] Other examples of jurisdictions with more sub-national government include the US State of Colorado (population around 4 million), which has 352 governments.[48] The Netherlands (population of about 15 million) has 12 provinces and 548 municipalities and Denmark (population 5.3 million) has 14 counties and 275 municipalities.

Since the purpose of this paper is particularly aimed at the layers of government below the central level, the functions of these layers are outlined here, starting with those of the highest tier of regional government, the Regional Assemblies which were established in 1999 (Government of Ireland, 1999).

The main functions of the Regional Assemblies are to, promote co-ordination of public services, promote consideration of region wide effects of more local actions and to manage and monitor EC programmes of financial assistance. With the exception of the functions related to the managing and monitoring of EU programmes, the functions are very minor. Indeed it is these roles related to EU programmes that were the fundamental reason for the establishment of the Regional Assemblies, and this is the only clear distinction between the functions of the regional assemblies and the regional authorities. The latter were set up in 1994 (Government of Ireland, 1993) following the recommendation in the Barrington Report (Advisory Expert Committee, 1991) and were given the functions recommended in that report.

Overall the functions of these two layers of regional government do not coincide with those suggested by economic theory since they do not involve the production or supply of public goods except for the possibility of achieving more co-ordination among the local authorities. This latter function however appears to be largely aspirational.

It should also be noted that the Barrington Report (Advisory Expert Committee, 1991) recommended that following a period of five years after their establishment the role of the regional authorities should be reviewed. Such a review was also to include the possibility of direct elections for the representatives on the regional authority which are currently appointed by the local authorities.

The functions of local authority are considerably more extensive and cover the areas of social housing, water supply, sewerage, refuse, pollution, recreation, fire protection, roads (other than national) and planning. These roles involve the supply of local public goods such as fire protection, the supply of congestable public goods such as roads and the supply club goods such as recreation. As such the functions of these jurisdictions are much more in line with those suggested by economic theory.

[47] These consist of 3 administrative regions (Regierungsbezirke), 36 counties (Kreise) and 2,305 municipalities (Gemeinden).

[48] These consist of 14 Planning and Management Regions, 63 counties and 275 municipalities.

4.4 Some Suggested Changes

The previous section makes clear that the two layers of regional government have no significant functions while local authorities have more extensive functions. This suggests that these regional governments should either be abolished or should be given more functions if these are economically appropriate. This section is concerned with the latter. Also, the functions currently carried out by local authorities do not exhaust the list of possible functions. Thus, other roles that could be decentralised include public transport, health, policing, and transport infrastructure other than roads. A number of these functions are already being carried out on a decentralised basis by specific authorities, such as port authorities in the case of ports. However, there appears to be a lack of co-ordination between the different authorities, which should have been fostered by the regional authorities. But, since these have no real powers to enforce co-ordination, the functions should be brought into the remit of the local authorities and regional authorities according to the size of the market area of the goods and services produced. This argument also concords with the results of Hochman *et al.* (1995) mentioned above which show that single function authorities are likely to be led to a globally inefficient outcome.

In many cases there exist significant spillovers of the goods and services provided by local authorities across their boundaries. The scope for such spillovers is increasing with high levels of commuting between counties and between regions. This suggests that the market areas of local public goods have been increasing. This means that there is at least an increasing need for co-ordination or more correctly a re-allocation of responsibilities to the regional layers of government. However, this assumes that the boundaries of the existing regional bodies are drawn appropriately. There is evidence that this is in fact not the case (see Bradley and Morgenroth, 1999). Particularly the Dublin region is not well defined since the functional links of Dublin extend to the surrounding Mid-East region and beyond into counties Louth, Westmeath and Offaly.[49] The drawing up of the Strategic Planning Guidelines for the Greater Dublin Area (Brady Shipman Martin, 1999) are a response to the implications of these functional links. However, the greater Dublin area as defined in that study does not encompass counties Louth, Westmeath and Offaly, which means that spillovers beyond the greater Dublin area are not accounted for. Furthermore, it is questionable whether these guidelines have had any real effect since the regional authorities have no power to enforce them.[50] Overall this suggests that the regional authority boundaries ought to be redrawn on the basis of functional links.

The scope for devolution of additional responsibilities to the regional assemblies is limited due to their large extent which does not appear to coincide with the extent of any local public goods. However, for this

[49] The primary reason for this is the high proportion of commuters from the surrounding counties into Dublin.

[50] This seems to be suggested in the review of the Strategic Planning Guidelines which call for a review of local authority development plans (see Brady Shipman Martin, 2000).

reason these authorities may therefore be more suitable to take on some of the roles of central government.

Assuming the boundaries of the sub-national levels of government are drawn appropriately, which functions should these fulfil? More specifically, which level of government is best suited to deal with health, housing, education, water/sewerage/solid waste, fire protection, roads, public transport, police, industrial policy, environmental protection, redistribution, planning?

Currently the provision of health care is centrally financed but co-ordinated at the regional level through the health boards and the recently formed Eastern Regional Health Authority. As such health care has already been regionalised. However, there is little evidence that the health board and the health authority co-ordinate their programmes with either the local authorities or regional authorities. Indeed the boundaries of the Eastern Regional Health Authority do not coincide with that of the Greater Dublin Area (the Mid-East and Dublin regions). The reason to organise health care at a regional level stems from the fact that health care in general has public goods characteristics with large externalities. However, health care needs are best observed at a local level. Regionalised provision is therefore a compromise between capturing the externalities of provision and observing local needs.

There are a number of changes that should be made to the organisation of health care. As a first step these boundaries should be harmonised. Second, they should be linked with the regional authorities which, if their members are elected, will ensure greater accountability of the health boards. Furthermore, such a change would lead to efficiency gains in the planning of services since this would eliminate the need for separate population and other projections by both the health boards and the regional authorities.

Education is largely a national responsibility although there is local involvement through the Vocational Education Committees (VEC) and Boards of Management. General education policy should remain the remit of central government since education has nation-wide spillovers. Also, different standards of education could be a source of discrimination for people from certain regions.[51] One possible change would involve tying the VECs more closely to the local authorities so as to improve accountability and aid planning.

The provision of social housing has traditionally been the function of local authorities. There is little reason to change this since the benefits of social housing are local and since the assessment of social housing needs is most accurately carried out at the local level. Similarly, fire protection is best provided at the local level, again since the benefits are local and the needs are only locally observed.[52]

Land use planning has largely been the remit of local authorities and in particular county councils. However, the drawing up of regional planning

[51] There is at least anecdotal evidence that such discrimination takes place in Germany where there are differing standards for education in the various federal states.

[52] There should be some national minimum standards.

guidelines for the greater Dublin area mark a departure from this. Furthermore, the National Spatial Strategy which is currently being drawn up it is hoped will impact on some aspects of land use planning at a wider level. In general, there is scope for a wider spatial strategy to be drawn up at the central level which then should be followed in the drawing up of regional plans (already a function of the regional authorities). The county development plans should be consistent with these regional plans and this should be strictly enforced. Furthermore, decisions that deviate from the county development plans should be referred to the regional authorities. Such a division of planning roles would leave the locally specific aspects of planning such as the granting of planning permission with the local authorities while ensuring that the actions of local authorities do not contravene national and regional objectives.

One area where all levels of government should be active is the area of environmental protection. The reason for this is that pollution can have effects which have a different spatial extent. Thus for instance an illegal dump has a negative local effect, while the pollution of a larger water course will have a regional effect while high levels of air pollution may affect the whole country.[53]

There are significant spillovers across local authority boundaries of the provision of water, sewerage and solid waste disposal. For instance there is a move towards larger more regional solid waste facilities such as dumps and incinerators, which can be more efficiently managed than more local facilities. For this reason these services can be most efficiently co-ordinated at the regional level. There is a significant role for private companies to get involved in areas such as solid waste collection the actual production of these services is most efficiently carried out by private sector firms which either compete for business (in the case of refuse collection) or through competitive tendering (e.g. in the case of maintenance of water and sewerage works).

The fact that co-ordination is required has resulted in the setting up of the National Roads Authority, which has responsibility for all national roads, thus centralising responsibility. However, the planning and maintenance of the national roads network separately from the remainder of the road network can not be efficient. Furthermore, the co-ordination of other roads has not been formalised. Given the spillovers of the road network across local authority boundaries the planning and construction of roads is a natural task for regional government, particularly regional authorities, with a co-ordinating role for central government for the national roads network. Given the current travel to work patterns there is also a need to redefine the boundaries of the regional authorities so that spillovers between regions are minimised (the reason for allocating additional roles to the regional authorities). This is particularly important for the greater Dublin region which on the basis of commuting patterns extends beyond the Dublin and Mid-East regions. However, in addition to the co-ordination role for central government this should also become involved in anti-congestion measures such as congestion pricing in the

[53] Indeed, such spillovers provide the rationale for international air quality agreements.

major urban areas (especially Dublin). The reason for this is that such policies are unlikely to be popular with local and regional interests since they involve additional costs for the residents of these areas, while such policies would have wider benefits.

The rationale for the involvement of the public sector in public transport is based on the belief that some public transport services which are socially desirable would not be provided by market action. If such reasoning requires public sector involvement then this should be at the local level in the case of local public transport and at the national level in the case of national public transport, since the spatial extent of the spillovers from local public transport is very limited.

Police and justice are functions which have been decentralised in the USA. In Ireland police and justice are centrally decided upon with services organised along a regional and local level. While a policy of complete decentralisation, that is complete control over policing and justice by a local or regional government, is clearly feasible in as far as certain types of policing such as traffic police have localised effects, there are clearly benefits from central responsibility for the functions since this ensures consistency throughout the country.

Industrial policy should be centrally decided since a decentralised policy is likely to lead to competition between jurisdictions which is unlikely to be efficient.[54] Of course, industrial policy can still have a regional character, and this is efficiency enhancing if it tackles particular market failures, as was discussed above.

Redistributive policies, such as the social welfare system, are run largely on a centralised basis and as argued above this is entirely appropriate. There is however a small role for local government in the administration of means-tested benefits, which is already the case for example regarding the third level grants scheme.

4.5 Summary

In our review of the literature on fiscal federalism we have shown that there is a role for local and regional government in the provision of public goods and services. This review also showed that these levels of government should not be involved in any major way in stabilisation and redistribution policies.

Of the five vertical layers of government in Ireland, the regional assemblies and regional authorities do not fulfil any of the roles suggested by economic theory. Furthermore, there is scope to widen the set of functions currently carried out by sub-national levels of government. This suggests that there should be some rebalancing of responsibilities among these levels of government.

The central government should retain responsibilities for justice and law enforcement, industrial policy, redistributive policies, and education. The regional assemblies are somewhat artificial and should not gain significant powers. More functions should be taken on by the regional

[54] The literature on inter-jurisdictional competition is too extensive to review here. However, the work of Taylor (1992) or Mintz and Tulkens (1986) shows that such competition may be inefficient.

authorities which have an appropriate spatial extent to deal with health care provision, roads and other transport infrastructure, water, sewerage and solid waste. The local authorities should retain their role in the provision of fire protection, social housing and should gain the additional role of providing or co-ordinating local public transport. Finally, environmental protection and planning are areas in which all layers of government should be involved.

This "division of labour" among the layers of government encompasses some of the broad changes that may be required to make the Irish government more efficient. As such these suggestions should not be seen as a definitive list of all the desirable changes. Also, since the changes that are suggested here are very general in nature they do not cover the more detailed small-scale changes that need to accompany these more fundamental changes. Therefore, there is a clear need to conduct further research in this area.

In suggesting these changes I did not take into account the performance of the various layers of government in fulfilling their existing roles since I believe that such issues can be dealt with through proper monitoring and legislation. Similarly, some people might hold the view that the assignment of additional powers to the regional authorities creates yet another layer of government with the potential for inappropriate decisions and perhaps even corruption. Again such issues can be dealt with through proper legislation and controls. Of course, there is also an accountability deficit regarding both the regional assemblies and regional authorities, with their members nominated rather than directly elected by the people. Clearly, if additional powers are given to these bodies then they must also be fully accountable which requires their membership to be directly elected.

It is also important to point out that the public provision of goods and services does not immediately imply that these should also be produced by the public sector. Rather, on grounds of efficiency, the production of many publicly provided goods and services should be carried out by private firms which are awarded the contract to do so on the basis on an appropriate tendering procedure. This leaves government with the direct functions of planning, financing and monitoring functions. Thus, for instance, the design, building and maintenance of roads can be carried out efficiently by private firms, where this is contracted out through a tendering procedure, subject to standards which have been set in advance and which are monitored by the regional authority.

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