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## STABILITY AND GROWTH PACT: BENIGN OR MALIGN NEGLECT?



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Right from its inception the EU Stability and Growth Pact (SGP) has been much maligned. Proposals to either scrap or reform the Pact have been largely ignored. Political tensions, culminating in the decision by the Council of Finance Ministers to set aside the European Commission's proposal on sanctions for France and Germany, have re-ignited the controversy. The wilful neglect, either malign or benign, of the SGP rules places greater onus on reforming budgetary targets to provide the correct balance between fiscal discipline and stabilisation in the expanding European Union (EU). Modifying whilst retaining the existing SGP may be the most politically feasible alternative, even if not the most economically desirable. Modifications should give explicit acknowledgement of countries' debt levels and could focus upon net public investment to allow economies make use of differential growth potentials in deciding upon the sustainable trajectory for their public finances.

### INTRODUCTION

The EU Stability and Growth Pact (SGP) provisions have been under criticism since its inception.<sup>[1]</sup> The Pact was originally intended to provide fiscal discipline and co-ordination in the fledgling European currency union. However, in recent years during the global economic downturn, when the SGP constraints became binding for a number of major EU economies, significant challenges to the credibility of the underlying rules emerged. This political tension has culminated in the November 2003 decision of the Ecofin, Council of Finance Ministers, to reject the European Commission's proposal to sanction both France and Germany for failure to comply with proposed consolidation measures. The Commission has responded by filing a lawsuit in the European Court of Justice seeking to overturn this suspension of EU budget disciplinary steps.

\* The authors would like to thank David Cronin, John Fitz Gerald and Conall MacCoille, among other colleagues, for helpful discussions on the topic over recent years. The views expressed here are the sole responsibility of the authors.

[1] See Buti *et al.* (2003).

While the political stand-off is likely to rumble on over the course of 2004,<sup>[2]</sup> the SGP will continue to be a major issue for the EU as it encompasses ten new Member States. The appropriateness of the SGP for the needs of the evolving Union covering such a wide spectrum of economies at different stages of development was always going to be an issue. The recent wilful neglect of the SGP, either malign or benign, partially opens up the Pandora's Box of questioning the existing rules while not having put in place an alternative. This is a welcome opportunity to reform budgetary targets to provide an appropriate balance between fiscal discipline and stabilisation, while fostering conditions for strong growth in the expanding EU.

## STABILITY AND GROWTH AS IT STANDS

As agreed in Dublin in December 1996, the SGP set out the manner in which budgetary discipline was to be enforced within Economic and Monetary Union (EMU). It was intended to strengthen the original fiscal provisions contained within the Maastricht Treaty, which were set at a limit of 3% for the general government deficit to GDP ratio and at 60% for the target debt to GDP ratio. It was hoped to combine flexibility with discipline, or economic growth with fiscal stability as its title inelegantly captures.

The SGP provisions have two functions as follows: a preventive function, based on a forward-looking assessment to provide early warnings; and a dissuasive function, to encourage corrective action through a series of fines once breaches occur.

The most important and under-acknowledged aspect of the SGP is probably the "close to balance or in surplus" provision. This stipulates that "adherence to the medium-term objective of budgetary positions close to balance or in surplus will allow Member States to deal with normal cyclical fluctuations while keeping the government deficit within the 3% of GDP reference value".<sup>[3]</sup> This particular provision has served to leave considerable ambiguity as to its interpretation.

[2] It is likely that the European Court of Justice may not rule until after the summer which, together with a new European Commission being formed in November, means that any major changes to the SGP are unlikely to emerge in the short term.  
[3] From Council Regulation (EC) No 1466/97 of 7<sup>th</sup> July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies.

For instance, there is no precise definition of the medium term within the provisions nor is there a specific budget balance value relating to this particular provision. It seems reasonable to assume that the medium term relates to the period across the full economic cycle, in which case the interpretation of "the close to balance" provision should be analysed using cyclically-adjusted measures of the public finances. However, the SGP is not explicit in this regard. This has motivated the European Commission to propose in November 2002 that the "close to balance or in surplus" requirements of the SGP are defined in underlying terms throughout the economic cycle. This would require the use of a common methodology to measure cyclically-adjusted budget balances, but the proposals have thus far not been formally accepted.<sup>[4]</sup>

The SGP also outlines how the "excessive deficit procedure" is imposed on those countries that break the 3% deficit limit within EMU and in what form the sanctions are to be levied. Exceptions may be made in the case where the deficit is in excess of the 3% reference value for reasons deemed "temporary and exceptional". Exceptional is where there is an annual fall of real GDP greater than 2%. Falls of GDP less than 2% may also be considered exceptional in the light of further supporting evidence such as the speed of the downturn, but only if the Member State is in "severe" recession implying a fall of at least 0.75% of GDP.

The rules operating under the SGP are focused upon the general government deficit to GDP ratio and, unlike in the Maastricht criteria, the actual debt to GDP ratio has no effective operative role.

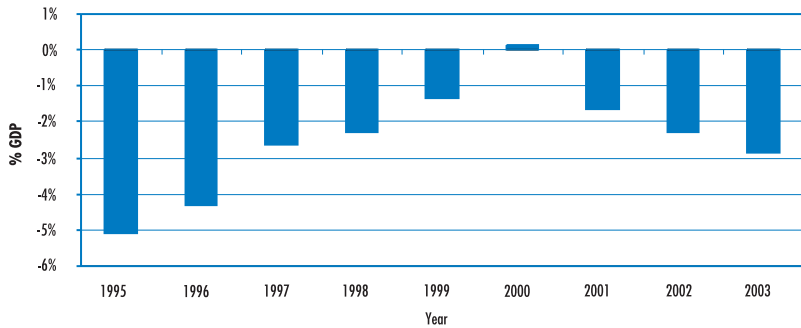
## RECENT FISCAL DEVELOPMENTS WITHIN THE EU

Most euro zone countries experienced exceptional budgetary improvements towards the late 1990s following years of deteriorating public finances. This led to substantial declines in underlying budget deficits, which in turn caused public debt to GDP ratios to fall. Much of this was due to the Maastricht convergence criteria. However, these public finance improvements have not continued into the current decade. As seen in Figure 1, after a considerable reduction in the euro zone general government deficit up to 2000, the public finances deteriorated significantly thereafter to a point where the euro zone general government deficit to GDP ratio is estimated to have been 2.8% in 2003. Much of this was due to cyclical factors, slow progress in structural reforms together with a failure of many countries to take full advantage of the favourable growth conditions when times were good.<sup>[5]</sup>

[4] While not formally accepted, part of the consolidation recommendations from the European Commission to Member States in 2003 were specified in cyclically-adjusted terms.

[5] For an in-depth examination of euro zone fiscal policy developments for the period 1991-2003 see the European Central Bank (2004).

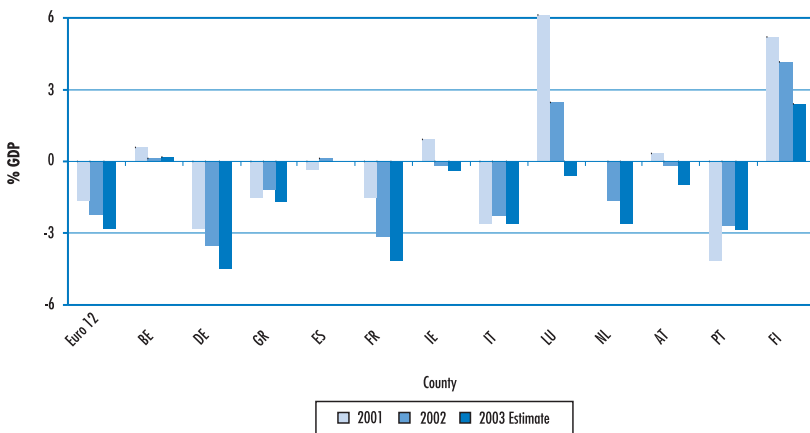
**FIGURE 1: EURO ZONE GENERAL GOVERNMENT BALANCE, 1995-2003**



Source: European Commission Autumn 2003 (AMECO database)

However, this aggregation hides diverging performances across Member States (see Figure 2). Although budgetary positions weakened more or less across the board from 2001/2002 due to the global economic slowdown, weaknesses in the public finances of Germany, France, Italy and Portugal have been particularly stark. Italy has not breached the 3% limit as of yet, although it has been within its safety margin for a prolonged period. Portugal has experienced considerable improvement from its deficit of 4.2% in 2001 but still remains tenuously close to the 3% limit.

**FIGURE 2: GENERAL GOVERNMENT BALANCE FOR EURO ZONE COUNTRIES, 2001-2003**



Source: European Commission Autumn 2003 (AMECO database)

France and Germany have seen continued deterioration, culminating in an estimated deficit of 4.2% and 4.5% respectively in 2003. This recurring deficit in excess of the SGP deficit limits led to the European Commission proposal that both countries be more strident in their efforts to comply with the Pact. The Ecofin rejected this proposal giving rise to the current impasse. Given that France and Germany are likely to be joined by a number of other EU countries in breach of the SGP rules in 2004, the inherent limitations of the SGP in its current form are apparent.

## LIMITATIONS OF THE STABILITY AND GROWTH PACT

There is little disagreement on the need for fiscal discipline in a monetary union. However, it is widely accepted that the SGP has been deficient in providing this role. The case for fiscal co-ordination is quite compelling. In spite of the no bail-out provision in the Maastricht Treaty, potential debt default in one regional economy could add to the risk premium payable by all other Member States. This default premium would seriously raise the cost of capital within the euro zone. Moreover, inappropriate fiscal expansion in a region may affect countries that have pursued more sensible macroeconomic policies by increasing inflationary expectations, together with any subsequent corrective action undertaken by the European Central Bank (ECB). This is particularly the case for the larger euro zone economies whose fiscal policy actions may cause considerable monetary and exchange rate responses that impact upon the wider region.

However, there is evidence that, under EMU, this fear of an inflationary shock in one region as a result of inappropriate fiscal policy may be somewhat overplayed.<sup>[6]</sup> This is because the effects from a fiscal stimulus in one country on inflation in the euro zone will be much smaller than on the inflation rate of the country undertaking the stimulus. Because the ECB targets the euro zone inflation rate, and is not charged with responsibility for regional inflation rates, its response would be very limited. Notwithstanding this, the emerging debate is focused upon how best the SGP should be modified so that it offers the most appropriate incentives for governments in providing sufficient short-term flexibility together with longer-term constraints. In this regard, the European Commission set out five sensible proposals to maintain, yet improve, the functioning of the SGP.<sup>[7]</sup>

[6] See Fitz Gerald and Bergin (2003).

[7] European Commission 2002

One of the main limitations of the SGP is that its focus is on the headline rather than the cyclically-adjusted fiscal balance which gives rise to pro-cyclical fiscal policy. This occurs because there are insufficient constraints during an economic upturn on the pursuit of expansionary policies that then requires tighter constraints during downturns. The SGP is focused only on fiscal discipline in cyclical downturns but is silent on policy behaviour during upswings.<sup>[8]</sup> The first Commission proposal was that cyclically-adjusted budgets would be used to assess the "close to balance or in surplus" condition, though breaches of the SGP still arise from unadjusted fiscal deficits that are greater than 3% of GDP. The use of cyclically-adjusted balances would be a positive development. However, the problem remains that there is no generally agreed method of accounting for cyclical impacts.<sup>[9]</sup>

A second Commission proposal is for countries that are far from "close to balance" to reduce underlying deficits by 0.5% per annum or else be considered to be in breach of the SGP rules. A modulation on the SGP would be to focus not on the overall fiscal balance but rather separately on the expenditure and revenue accounts. Since revenues tend to be quite correlated with the economic cycle, emphasis might be better placed on expenditure targets given that these involve more discretionary power by governments. These expenditure rules would be a useful complement to the "close to balance" objectives.

A third proposal argues that countries avoid pro-cyclical loosening of policies in economic upturns or the avoidance of "bad policies in good times". It has been clear that Member States have failed in the initial years of EMU to correct underlying structural deficiencies that have become exaggerated during the prolonged international downturn in recent years. The ECB in particular has highlighted the poor record of governments in improving fiscal balances during the good times.

The emphasis on the deficit rather than the debt in the SGP fails to account for the long-term sustainability issue by focusing on short-term constraints. This ignores the important issues for any country's public finances such as the age demographics and the economy's stage of development. As the EU enlarges to take on more economies in transition, this deficiency with the SGP will become more significant. In this light, the fourth Commission proposal is that public debt levels ought to be taken into

[8] Fitz Gerald, 2001

[9] The European Commission, for instance, has tended to use a statistical filtering method to derive potential output measures but is being pressed to make use of more economic based methods. Establishing an agreed methodology would be crucial if the SGP were to officially switch to cyclically-adjusted measures.

account when deciding on the required levels of fiscal effort needed to balance budgets. One consequence of the current deficit centric approach is that budgetary policy aimed at avoiding breaches of the 3% limit would lead to significantly different debt levels across countries. This approach can then imply significantly different steady state values for the public debt ratio in each country with consequences for intergenerational redistribution. It can be argued that different debt levels, which imply different deficit levels, could be specified for each country depending upon factors like pension obligations, stages of development and so on.<sup>[10]</sup>

In addition to this debt provision, the fifth Commission proposal suggests that countries with low debt to GDP ratios could borrow to finance investment as opposed to current expenditure in a form of the "golden rule", such as that currently utilised in the UK.<sup>[11]</sup> Restrictions on borrowing for investment purposes, particularly infrastructural provision, can have significant implications for intergenerational equity. Blanchard and Giavazzi (2002) suggest that a modification to the golden rule, borrowing for investment purposes only, would be to restrict borrowing to fund net public investment. Net public investment is net of depreciation (or capital consumption), which would restrict governments to provide for real increases in an economy's productive capacity each year.

The Eurostat decision in February 2004 on the treatment of public private partnerships (PPPs) recommends that the assets involved in a PPP should be classified as non-governmental assets and therefore recorded off-balance sheet for governments, if both of the following conditions are met: (i) the private partner bears the construction risk; and (ii) the private partner bears at least one of either availability or demand risk. While this proposal has some obvious attractiveness in loosening the constraints on government borrowing given the current rules in the SGP, there is a danger that the criterion for project evaluation might be relaxed. These proposals are welcome because they add flexibility to the treatment of government-backed, infrastructural investment but are a means towards an end rather than an end in themselves. If it is the constraints on the SGP that justifies the use of PPPs, then this is an argument for changing the SGP not for treating the accounting of the investment differently.

[10] Pisani-Ferry (2002) shows that using the EU Commission's cyclical safety margins and allowing an 0.5 percentage margin for unforeseen erratic components, like unexpected revenue shortfalls, would imply steady state values ranging from -26% to +47% for the net wealth of the public sector.

[11] Emmerson and Frayne, 2002.



## CAN THE SGP HAVE A FUTURE?

While the European Commission (2002) proposals are moving the reform of the SGP along the right track, there continues to be strong resistance to change and a preference towards a benign neglect. However, there is near universal acceptance that the Pact provides inadequate fiscal rules for an economic downturn. A number of options, as follows, need to be considered to determine whether or not there is to be a future for a revised SGP.

- Introduce institutional change, which could alter how binding the rules are and therefore Member States' incentives to adhere to them.
- Disband the current Pact without replacement by an alternative, thus applying no fiscal rules across the EMU. This may be a risky option and may, in theory, leave the door open to unilateral fiscal decisions negatively affecting the wider EMU area.
- Disband the current Pact and replace it with rules and provisions which are deemed more appropriate for EMU at this juncture. This would most certainly be the most difficult option both in terms of agreement of new provisions and the timescale involved in setting the agreed terms into EU legislation, which might require a number of referenda. In turn, the problem of what to do in the interim remains, especially if it occurs in a period where public finances are under particular strain.
- Amend the terms or even the interpretation of the current Pact. This latter option seems the most reasonable as it can take the form of "add-ons" to the Pact which may be compatible with the current treaty and therefore easier, in the short run at least, to implement.

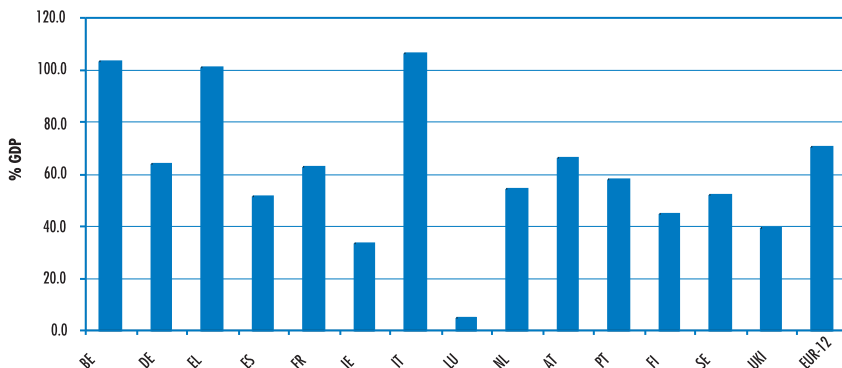
The most sensible "add on" to the current SGP rules is to tackle the issue of sustainability by having a "Debt Sustainability Pact" as proposed by Pisani-Ferry (2002). Since the SGP is focused exclusively on deficits, with the by-product of increasing the incentive for creative accounting tricks that blur transparency, the need to give more weight to the level of public debt is persuasive. The level of debt sustainability is primarily determined by the growth potential of an economy and the initial existing debt level. Economies that borrow to finance public investment from a low debt position are being overly restricted by the SGP if their growth potentials are higher than the existing members of the euro zone. This is the case for the acceding countries about to join the EU, who have substantially lower debt to GDP ratios than incumbent members (see Figure 3). Given the importance of economic growth for public finance sustainability, there is a danger with the SGP that economies may be restricted or delayed in reaching their potential growth, which in turn could make attainment of their fiscal targets even more difficult.

The debt to GDP ratio is held stable in a monetary union when the deficit to GDP ratio (d) is equal to the debt to GDP ratio (b) times the nominal growth rate of GDP (g).<sup>[12]</sup>

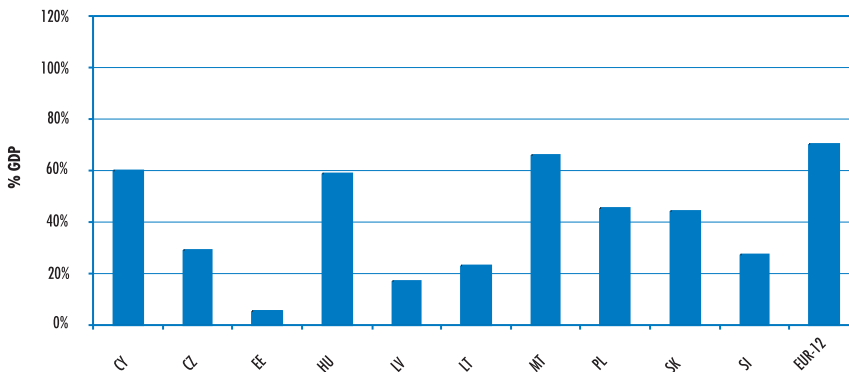
$$d = b \cdot g$$

The Maastricht convergence ratios of 3% for deficits (d=0.3) and 60% for debt (b=0.6) is consistent with a nominal growth rate of GDP of 5% ( $g = \frac{d}{b} = 0.03/0.6 = 0.05$ ).

**FIGURE 3 (a): GROSS DEBT AS % of GDP in 2003, EURO ZONE ECONOMIES**



**FIGURE 3 (b): GROSS DEBT AS % of GDP in 2003, EURO ZONE ACCESSION ECONOMIES**



[12] Let  $D$ , the government deficit, be financed either by increasing government debt ( $\Delta B$ ) or by printing more money ( $\Delta M$ ) such that  $\Delta B + \Delta M = D$ . Under EMU, the option of monetary expansion is eliminated ( $\Delta M = 0$ ), therefore  $\Delta B = D$ . Expressing  $B$  and  $D$  as a percentage of GDP ( $Y$ ) we get the deficit to GDP ( $d = D/Y$ ) and the debt to GDP ( $b = B/Y$ ) ratios. Using the latter we get  $B = b \cdot Y$ . Using total differentiation, we get  $\Delta B = b \cdot \Delta Y + Y \cdot \Delta b$ . Dividing both sides by  $Y$  we get  $\Delta B/Y = b \cdot g + \Delta b$  where  $g = \Delta Y/Y$  is the nominal growth rate of GDP. Using  $\Delta B = D$ , then  $\Delta B/Y = D/Y = d$ . The debt sustainability rule in this framework is  $\Delta b = d - b \cdot g$ . In order to stabilise the debt ratio ( $\Delta b = 0$ ), the sustainability rule is  $d = b \cdot g$ .

While a nominal growth rate of 5% - made up for instance of a combination of 2% inflation plus 3% real output growth - may help stabilise debt ratios for developed economies, it can be particularly binding for the accession countries. New entrant countries can expect significantly higher growth rates in the medium to long term due to convergence forces. In fact, the 10 accession countries currently have a population of nearly 20% of the EU-15 population but only have 5% of the EU-15 total GDP. There is obviously large scope for higher growth rates as these countries catch up to living standards in the wider EU.

If an EU-15 nominal growth rate of 5% were to be assumed, as implied by the debt sustainability condition, together with a constant population share of the EU-15, then the acceding countries would require a nominal growth rate of over 14% per annum in order to converge in terms of GDP per head by 2020. With this possible magnitude of growth rate the acceding countries on average could run consistent deficits in excess of 8% per annum and still maintain debt ratios of 60% of GDP. In fact, Figure 3 shows that on average the debt to GDP ratios in the accession countries, at less than 40%, is less than that of the euro zone average of over 60%. Even at this substantially lower debt ratio the acceding countries could run deficits of close to 6% of GDP as they converge and still maintain their current low debt ratio.

The Debt Sustainability Pact add-on could give countries the choice to opt out of the Excessive Deficit Procedure. Instead, countries could agree to keep their debt to GDP ratios below some numerically agreed value. In addition, to aid transparency and place the SGP firmly in a medium-term perspective, countries could be required to submit a debt programme specifying the benchmark for the anticipated debt progression over a five-year period. This could shift the focus from monitoring deficits on a year-by-year basis to taking a medium-term perspective on longer-term fiscal sustainability. The monitoring of the separate deficit or debt pacts would best be done in a non-partisan way by the Commission; however, when it comes to applying sanctions, the Ecofin Council of Ministers would still need to be involved.

## CONCLUSIONS

The Stability and Growth Pact (SGP) has from its initiation attracted strong criticism. The credibility that it was intended to deliver, by encouraging fiscal discipline, continues to be severely tested during the downturn in the European economy which has seen a number of countries close to or above the 3% deficit limit. The SGP emphasis on the government deficit encourages pro-cyclical fiscal policy but its main deficiency lies in its inability to distinguish between high and low indebted countries and between those with widely different potential output growth rates.

Within the SGP, the target debt level has been dropped with a focus firmly placed on the deficit ratio. The interactions between debt and deficits can become quite complex making it difficult to specify the joint rules implied under the SGP. The need for fiscal discipline and co-ordination within a monetary union, if agreed upon, can still be aided by the use of rules such as those contained within the SGP. This would encourage the search for a modification rather than an abandonment of the SGP. The wilful neglect, either malign or benign, of the SGP rules places greater onus on reforming budgetary targets to provide the correct balance between fiscal discipline and stabilisation in the expanding EU. Modifying the existing SGP may be the most politically feasible alternative, even if not the most economically desirable.

Explicit acknowledgement of countries' debt levels should play a pivotal role in any reform or modification of the SGP. This might involve creating a "Debt Sustainability Pact" alongside the SGP to provide Member States with an "option" to exceed the deficit limits without incurring fines when the debt levels are sufficiently below agreed target debt levels. Moreover, focus upon net public investment would be desirable as it would not constrain countries from undertaking necessary and desirable infrastructural investment while allowing economies to make use of differential growth potentials in deciding upon the sustainable trajectory for their public finances. These "add ons" may also have the advantage of not opening a Pandora's Box by trying to reform the SGP just at the point where the EU is rapidly expanding.

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## THE US FISCAL POSITION: COLLAPSE OF THE SURPLUS AND ITS CONSEQUENCES



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In the last four years the United States economy has experienced a remarkable deterioration in its fiscal accounts. While in the year 2000 Congress projected an almost complete elimination of all government debt by the end of the decade, the most conservative current projections are that the debt to GDP ratio will be 40% by 2010. The fiscal deterioration has taken place through a substantial rise in spending, but a much bigger drop in revenue. However, fears that Europe could end up paying towards the future costs of current US policy are largely misplaced. The US deficit is a US problem and the burden will be borne by a future generation of US taxpayers.

### THE CURRENT US FISCAL POSITION AND FUTURE PROJECTIONS

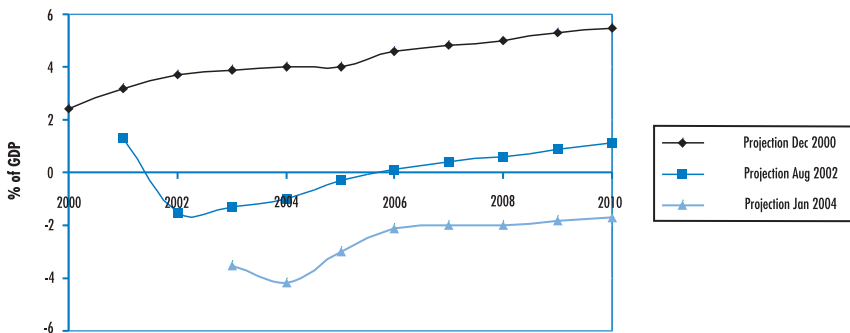
The Congressional Budget Office (CBO) publishes annual updates on the federal budget, including projections for a 10-year period, based on current legislation regarding spending and taxation and a given forecast of GDP growth. Figure 1 illustrates the CBO's forecasts of the budget surplus from 2000 to 2010. The actual budget surplus in 2000 was 2.4% of GDP. Strong continuing surpluses were forecast throughout the decade, moving to over 5% of GDP by 2010. The Figure also contains more recent updates and forecasts, from 2002 and the latest release made in January 2004. There is a remarkable collapse in the surplus between 2000 and 2002 and an even more remarkable deterioration between 2002 and the most recent numbers. For instance, the difference between the year 2000 forecast for the current year (2004) and the current forecast is 8.2% of GDP – almost a trillion dollars! Since the 2000 projections, the total budget deterioration for the 2003-2010 period is \$6.5 trillion or 57% of this year's GDP.

Another perspective on the changed budget position is the ratio of federal debt to GDP. The 2000 projections predicted a sharp decline in the debt ratio – from 35% at that time down to 5% in 2010. This even led to a discussion about how the US

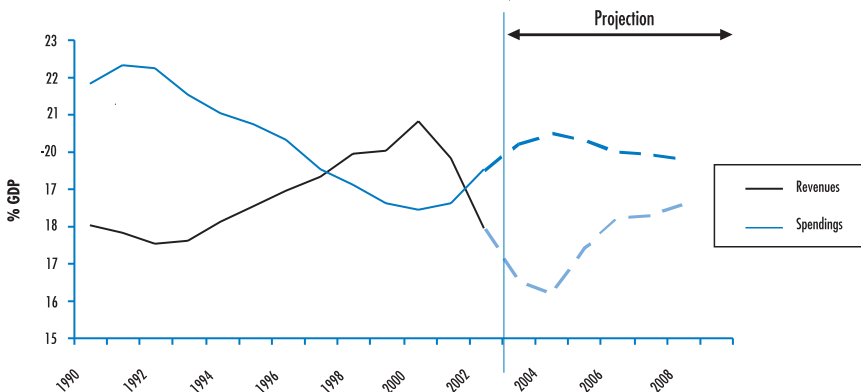
financial system would adapt to the complete drying up of new supplies of government bonds. In fact, they need not have worried so much, as the current forecast is that the debt ratio will converge to about 41% of GDP by 2010.

What accounts for the scale of the turnaround in the fiscal accounts? By simple arithmetic, the government deficit must equal expenditure less revenues, so a deterioration in the deficit must be due to a rise in expenditure, a fall in revenues or some of both. In this case, as shown in Figure 2, the greatest factor by far is a sharp fall in revenue. While there has been a rise in spending since 2000 – with the total rising from 18.4% of GDP to 20% of GDP currently - there has been a very steep drop in revenues, from 21% of GDP in 2000 to only 16% this year.

**FIGURE 1: BUDGET PROJECTIONS SINCE 2000**



**FIGURE 2: REVENUES AND EXPENDITURE, 1990-2008**





Both the rise in spending and the fall in revenues are partly due to cyclical effects – as the economy goes into recession, mandated spending (e.g. unemployment benefits) rises and tax revenues fall, automatically. The US did fall into recession in 2001. But there are other factors behind the turnaround in the deficit. There has been an increase in discretionary spending as well as a series of legislated tax cuts. The tax cuts have been the most widely publicised aspects of the Bush Administration fiscal policy. However, according to CBO estimates, they currently account for only about a quarter of the budget deterioration. Another quarter can be ascribed to the rise in discretionary spending (for instance, increases in defence expenditure and spending on homeland security), and the remainder, about 50%, to "economic effects", which basically arise from the weaker economy. As time goes on, it is these discretionary and legislative changes in spending and taxes that will account for the scale of the fiscal imbalance.

The return to high and growing budget deficits has sparked a heated political debate in the US. Many economists have issued warnings about the dangers of leaving the deficit unchecked. The Administration's response is that the deficit is high, but in relation to GDP it is smaller than in the mid-1980s or even the early 1990s; in any case, it is scheduled to be cut in half by 2006 and effectively to return to surplus by 2012. Unfortunately, there are clear reasons to think that the projections made in Figure 1 are substantial underestimates of the true deficit. The revenue projections are based on the assumption that the legislated tax cuts will be gradually reversed, with all being reversed by 2011. In addition, other tax and spending assumptions underlying the projections are highly unlikely to come about; in fact some assumptions are at variance with stated government objectives.

The Administration has stated repeatedly that it will fight to make the current tax cuts permanent and to remove the force of the Alternative Minimum Tax - a rule which in the next few years would effectively claw back the benefit of the current tax cuts to many middle income taxpayers. Rivlin and Sawhill (2004) have revised the CBO projections to take account of lower tax revenue and higher spending rates that are almost certain to come about. They forecast a much worse fiscal position than the official one; budget deficits remaining over 3% of GDP well into the next decade. Moreover, even these estimates add in the surplus on social security account. By reasonable standards of accounting this should not be included in the current budget figures, since these funds are being held to offset the fully predictable bulge in retirements starting early in the next decade. When the social security surplus is subtracted, deficits of over 5% of GDP are found, at least until 2014.

It is this pessimistic prediction for the path of future fiscal policy that most alarms economists. The current deficits are high but quite manageable. Moreover, they have helped to solidify the recovery from the 2001 recession. But the real issue is the unending sequence of structural deficits projected forward (when realistic budgeting assumptions are used). These result from a permanent sharp fall in revenues, even after the economy has fully recovered from the recession. Given the short time left before the major demographic bulge - as the baby-boomers begin retiring, drawing down the social security surplus, increasing the dependency ratio and pushing up the costs of health care - there is a strong case that the US should be running budget surpluses. The long-term imbalance has led the IMF (2004) to issue a recent warning about the sustainability of US fiscal policy. Over a long horizon, using an intergenerational approach to the fiscal accounts, they calculate that the present value of the fiscal gap (the present value of differences between expenditure commitments and revenues) is about five times current GDP and would need a major immediate increase in taxation or reduction in services to bring into balance.

The US government budget deficit is mirrored in the current account deficit. Despite a weak economy and a falling dollar, the current account deficit has not fallen significantly over the past few years and currently stands at around 5% of GDP. There has been a revival of discussion about the "twin deficits hypothesis", which suggests a causal link between the government budget deficit and the current account deficit. While the evidence for this is somewhat sketchy (see below), since the current account deficit remained high during the 1990s when the fiscal budget went back into surplus, it is self-evident that the external deficit reflects a low rate of national saving in the US economy. Some commentators argue that the combination of unsustainable fiscal policy and high current account deficits leaves the US economy open to an "Argentina-style" collapse in confidence.

## "CROWDING OUT" AND THE COSTS OF BUDGET DEFICITS

Though not unanimous, there is widespread agreement that persistent budget deficits have welfare costs in the long run, although the nature and extent of these costs are not fully agreed upon. The main cost of government deficits is due to what is called the "crowding out" effect. According to this argument, the reduction in government saving causes a fall in the whole economy's saving (or national saving), which will either reduce investment and the future capital stock or increase the economy's current account deficit and leave it with higher foreign debt. In either case, the economy as a whole is worse off, as there is less income available for the average citizen.

A dissenting view, most often identified with Barro (1974), argues that pure deficits have no real effects, because the economy's savers will forecast the implicit increase in future taxes that result from any present reduction in taxes, so that national saving will be unchanged. This is the so-called Ricardian equivalence theorem of deficits. But it rests on quite extreme assumptions about the workings of capital markets and bequest linkages across generations. The consensus view seems to be that deficits reduce national saving, but not fully.

If deficits "crowd out" net wealth, how large is the cost for the economy? Following Elmendorf and Mankiw (1998), a simple calculation for the US economy can be undertaken. The difference between the 2010 debt ratio as originally projected in 2000 and the current baseline CBO projection for 2010 is approximately 35% of GDP. Imagine that this increase in government debt "crowds out" capital one for one – of course this is an extreme case of non-Ricardian equivalence, but it helps to give some intuition. Since the capital output ratio in the US economy is about 2.5 and the share of capital in national income is about 30%, the gross marginal product of capital (which in a competitive market should be equal to the share of capital divided by the capital-output ratio) is estimated to be about 12%. The capital depreciation rate is about 6% so the net return to capital is 6%. A rise in the debt to GDP ratio of 35% which reduced physical capital one for one would then cause a fall in output of just over 2% (.06 multiplied by .35).

This is by no means catastrophic, but it is still a large number and it is a permanent cost - although to the level of GDP, not the growth rate. Furthermore, it is likely to be an underestimate. Based on more plausible projections of the debt ratio rising to 50% of output, the fall in permanent GDP would be equal to 3%. In addition, the GDP growth projections behind the CBO estimates are on the high side (over 3% up to 2010) and the actual numbers could easily fall below this. Going further, if there are significant positive externalities to capital accumulation not captured by owners of capital (as suggested in the literature on endogenous growth), then the costs of "crowding out" could be much higher than suggested above.

What difference would it make if the "crowding out" took the form of a reduction in net foreign assets, rather than a reduction in the capital stock? In fact, if an open economy is taken, where world interest rates are fixed, the welfare effects would be equivalent. Arbitrage between domestic and foreign capital markets would equalise the returns to domestic investment and net foreign assets. A rise in government debt which fully "crowded out" net foreign assets would reduce GNP, while GDP would be unchanged. If the real return on net foreign assets were again 6%, GNP would fall by the exactly the same amount.

These examples are extreme because they assume full "crowding out". In reality, government debt does not fully "crowd out" the capital stock, because it is likely to bid up real interest rates and increase saving. Nonetheless, the example is educational since it helps to clear up one confusion that sometimes arises about the effects of government deficits. Deficits do not have to push up interest rates to be costly; in fact, in a small open economy - absent a risk premium effect - deficits will have welfare costs without any effects on interest rates.

However, in the US economy it is unrealistic to imagine that "crowding out" would take place without interest rate effects. The US is clearly not a small open economy. If there is no evidence at all that US deficits affect real interest rates, it is more likely that Ricardian equivalence applies – and deficits are fully offset by private savings, leaving national savings unchanged. Thus, a lot of debate has taken place over the impact of US deficits on real interest rates. If deficits raise real interest rates, there must be a negative effect on the long-run capital stock; and as a result, labour productivity and real wages will be lower in the long run.

Many studies have failed to find any statistically significant effects of budget deficits on real interest rates.<sup>[1]</sup> Empirically, this is a very difficult link to establish because of both problems of simultaneity (that is, real interest rates cause deficits as well as the other way around) and because the effect must depend critically on unobserved expectations of future deficits and other variables. Gale and Orzag (2003) argue that, when adequate measures of expected future deficits and interest rates are taken account of, a rise in the deficit to GDP ratio by one percent raises the long- term real interest rate by about 60 basis points. Many other estimates are closer to 30 basis points and there is a wide degree of uncertainty in the estimates.

What figure would be implied in the example given above for the US economy? Again, take the example of a 35% rise in the debt to GDP ratio. Following the estimate of Bernheim (1987), a suggestion that private savings increase by about half the rise in the deficit would imply a fall in the capital stock of about 17% times the output capital ratio or 6.8%. If the marginal product of capital is 12%, and we assume a Cobb-Douglas production function, this leads to a rise in the real interest rate of 57 basis points - very close to the estimates of Gale and Orzag (2003), although the experiment is somewhat different.

[1] For example Evans 1988.

To summarise, there is substantial evidence that deficits are not neutral and that they tend to "crowd out" capital and push up interest rates. Hence, the current US deficits are likely to bring long-run welfare costs. However, given the projected debt ratio, which is based on the expected path of real interest rates and growth rates of real income in the US, these costs do not look alarmingly high. It should be noted that they are not so high because of the assumption that they will be corrected by tax increases within a five-year period. If this did not take place, of course the costs would rise even more. This aside, unless there is a clear reason for shifting the tax burden from the current working generation to the future generations, who will face a higher dependency rate in any case, there seems little economic rationale for the present position of US fiscal policy.

## OTHER FACTORS IN THE DEFICIT DEBATE

While the case against full Ricardian equivalence seems almost irrefutable, the implications of non-Ricardian behaviour are not always obvious. Mankiw (2000) develops a model where some households are fully forward looking and, in response to a budget deficit, they increase their savings by exactly the amount necessary to offset future taxes. On the other hand, some households spend all their income whether because they are myopic or liquidity constrained. Mankiw shows that in this case there is "crowding out" in the short run but not in the long run! In the long run the capital stock is determined only by the savings decisions of far-sighted consumers and will be pinned down at the rate whereby the marginal product of capital is equal to the rate of time preference of these consumers. As a result of this, there is no effect of government debt on the long-run capital stock at all and no aggregate "crowding out" in the long run. But in this case the major effect of higher public debt is distributional. The tax burden to finance the debt will fall heavily on the short-sighted consumers, who have not increased their savings rates to match the future tax increases implied by the initial deficit. Moreover, since these short-sighted consumers will be lower down the income distribution, the effect of deficits on their long-run real income could be much higher than the examples given above. This raises an important real world concern about budget deficits in general: if the effective burden of the government debt falls on the low end of the income distribution – on those agents who do not in fact hold the public debt - the standard aggregate estimates of the cost of deficits may be seriously misleading.

Although the "crowding out" effect undoubtedly implies a long-run cost of government budget deficits and public debt, it is important to emphasise the short-run macroeconomic benefits of having a fiscal policy which is flexible enough to operate counter-cyclically. It is perfectly reasonable to design fiscal rules so that budget balance is achieved only over the business cycle, rather than on a year-to-year basis. However, this is easier said than done. In a political economy sense it is much easier to run deficits than surpluses. As a result, as many have argued, a discretionary approach to fiscal policy is likely to lead to excessive deficits and public debt. Many economists therefore called for a framework of fiscal rules which would govern the application of government fiscal balances.<sup>[2]</sup> Interestingly, while there has been a revolution in the theory of monetary policy, incorporating modern dynamic general equilibrium theory into Keynesian frameworks in a way which can be used for practical purposes,<sup>[3]</sup> the academic literature has yet to do this with respect to fiscal policy, integrating the short-run stabilisation benefits of budget deficits against the long-run dangers of high public debts.

## THE TWIN DEFICITS

As is clear from the above discussion, an important part of the fiscal policy mechanism in an open economy is the impact of deficits on the current account. There is much literature on the twin deficits, that is, the government budget deficit and the current account deficit. Evidence from the US in the 1970s and 1980s seemed to support the link. The US deficit to GDP ratio peaked in the mid-1980s, at the same time as the peak of the dollar, with rising current account imbalances. But this same relationship broke down in the 1990s. As the budget deficit persistently fell into the late 1990s, the current account deficit rose sharply to 4% of GDP in 2000.

Figure 3 illustrates the US current account, budget deficit and change in the effective exchange rate over the 1990s. There is clearly not a simple direct relationship between the budget deficit and the current account; and the exchange rate (as well as other factors) must also be taken into account. Nevertheless, there is evidence that on average countries with higher government budget deficits also have higher current account deficits. Figure 4 illustrates this for a sample of 27 OECD countries over the 1986-2002 period. There is a clear positive association between the two deficits.<sup>[4]</sup>

[2] For example, Von Hagen 2002.

[3] For example, Woodford 2003

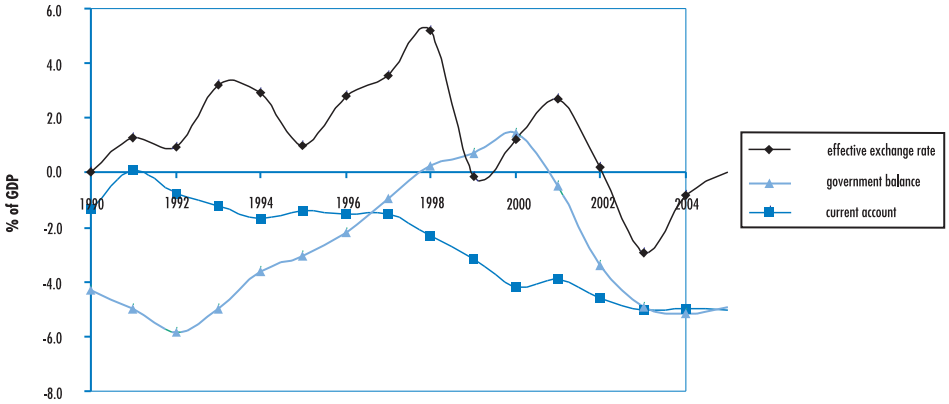
[4] The regression estimates of the current account deficit ratio on the deficit to GDP ratio are as follows:

$$\left( \frac{CA}{GDP} \right) = 1.12 + 0.68 \left( \frac{GS}{GDP} \right) \quad R^2 = 0.29$$

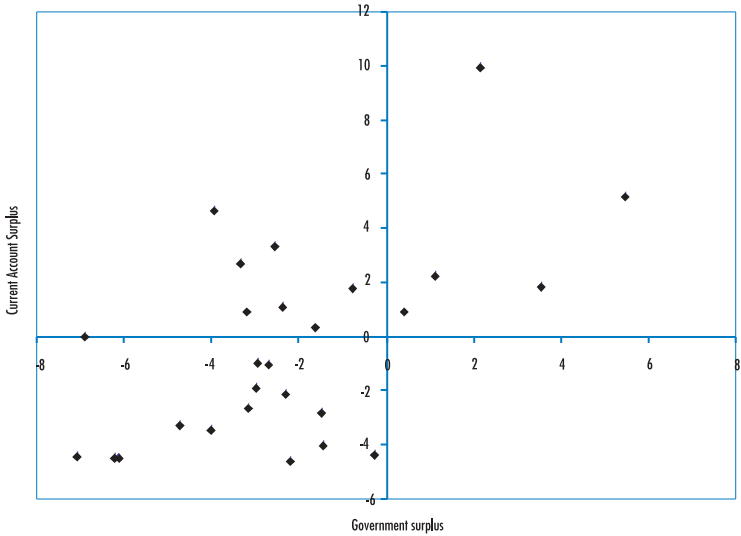
(1.51) (3.63)

The coefficient is high and very significant.

**FIGURE 3: TWIN DEFICITS**



**FIGURE 4: GOVERNMENT AND CURRENT ACCOUNT SURPLUS**



## INTERNATIONAL EFFECTS OF US DEFICITS

One of the main European fears about the effects of the US deficit is that it will push up world real interest rates and reduce investment and growth in Europe. In an integrated world capital market one would expect a strong link between US real interest rates and those in the rest of the world. What evidence is there of an international link between deficits and real interest rates? The IMF (2004) show a high positive correlation between real interest rates across G7 countries. However, there is much less robust evidence of a direct effect of US deficits on real interest rates in the rest of the world. Using a number of procedures, the IMF study estimates a relationship between a measure of the world public debt to GDP ratio and national real interest rates for 11 industrial countries. The most successful one is a pooled regression, which imposes the assumption of an identical linkage between world public debt and real interest rates for all countries. The estimates suggest that the projected increase in the US debt to GDP ratio could raise world interest rates by between half and one percentage point. But the significance levels of these estimates are open to question, since the assumption of identical structure across all countries is hard to defend. Moreover, the estimates seem to be a priori implausible, because they are higher than the upper bound of the estimates of the impact of the US debt ratio on US interest rates.

However, even taking these estimates as given, it is unclear whether a US deficit-driven rise in world real interest rates would have a significant impact on European welfare. Europe as a whole is a net creditor so a rise in the world cost of borrowing would not have direct negative wealth effects.<sup>[5]</sup> Moreover, although it may reduce investment in Europe somewhat, it would increase the return on net foreign investments. From a theoretical viewpoint, Europe would in fact be likely to gain from this. Only if there were some substantial positive externalities to capital investment, not captured by individual decision-making in European capital markets, would there be a clear a priori case that an externally-driven rise in world real interest rates would be costly. The key difference between the US and Europe, with regards to US fiscal policy, is that US residents must shoulder the whole burden of the debt, in the absence of the esoteric case of complete Arrow-Debreu contingent securities trading whereby US taxpayers have diversified away the risk of higher future taxes. Moreover, in the current climate the US deficit has undoubtedly been of benefit to the European economy, since the recovery from the recent recession has been much slower and less pronounced in Europe.

[5] See Lane and Milesi Ferreti, 2001.



What about the exchange rate and the current account? To the extent that the high US deficit is a cause of the current account deficit, then a higher current deficit must involve a greater future adjustment and a sharper future reversal in the current account. How much this reversal will take place through a lower real value of the dollar (even more than has taken place in the last two years) and how much through a reduction in domestic absorption is not precisely known. Again it should be noted that from a theoretical viewpoint it is not a priori obvious that an appreciation of the euro against the dollar as part of the adjustment to the US current account represents a welfare cost. But even if that proposition were accepted, the modest estimates of the adjustment in GNP presented above suggest that the required adjustment in absorption and therefore in the real exchange rate would be quite small. While European exports to the US are large, they are small in relation to intra-European trade (for instance, German exports to the US in 2002 were 3.5% of GDP), so a lower US growth rate would only have a small direct effect on European demand.

### A SUDDEN STOP FOR THE US ECONOMY?

While the majority of the literature on deficits and "crowding out" suggests that the long-run effects of government deficits occur gradually, as the debt to GDP ratio builds up, some writers have argued that this may significantly underestimate the possible negative effects of the loss of control in fiscal policy.<sup>[6]</sup> The experience of many emerging market economies over the past decade has been that poor fiscal and monetary policies may precipitate a collapse in the confidence of financial markets and lead to a sharp and sudden crash. In such an event external creditors simply stop lending to the economy, which is then forced to rapidly move from an external deficit to surplus; Calvo (2001) has christened these events as "sudden stops". Rubin et al (2004) remark that the current position of the US economy displays some uncomfortable similarities to some of the emerging markets of the 1990s – a high and seemingly endless string of budget deficits and a very high and unsustainable current account deficit. This continual reliance on inflows of capital from the rest of the world inevitably puts the US in a vulnerable position. However, unlike the case of small emerging market economies, a sudden collapse in confidence in the US economy could have major negative consequences for the rest of the world – probably bringing a big drop in the US dollar and a jump in world real interest rates.

[6] Rubin et al, 2004.

This is a dramatic scenario but is probably not grounded in reality. In the absence of a major political crisis, there is essentially no chance at all that the US government would default on any of its debt. At the same time, the Federal Reserve Board has extremely strong credibility (built up over two decades) in following a path of low inflation and it is inconceivable that it would accede to a policy of inflationary finance to reduce the real burden of foreign debt. Moreover, because the US borrows in its own currency, a fall in the real exchange rate has a much smaller direct effect on its economy – there is no "currency mismatch" that has characterized the dynamics of financial crises in most emerging markets. In a similar vein, since most goods bought and sold by the US are invoiced in US dollars, the US is largely insulated from the inflationary effects of currency movements. In fact, uniquely in the world, the US economy can absorb huge changes in its real exchange rate and terms of trade with little or no macroeconomic repercussions. In summary, the US deficit is a US problem and the burden will be borne by a future generation of US taxpayers.

The recent deterioration in the US government budget is in some measure due to the weak economy and is mirrored in the rise in government deficits in Europe. But the US case is different in that there has also been a sharp increase in the structural budget deficit. The tax cuts have been an important contributing factor in this increase. Almost all realistic projections find that the current US fiscal policy is unsustainable. It seems inevitable that, over the next decade, either taxes will have to be raised or social security, medicare and other spending programmes will have to be substantially cut back. Whichever of these happens, from the point of view of inter-generational equity it is hard to rationalise the present fiscal policy stance.

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## PRICING AND INVESTMENT DECISIONS IN IRISH EDUCATION



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Irish third-level graduates benefit significantly from their education in the form of higher earnings. This private "rate of return" is higher in Ireland than in most other OECD countries. This implies a strong case in equity terms for tuition fees. The abolition of fees in 1994 did not increase equality of access to higher education as intended, but other labour market changes in the late 1990s affected the outcome - notably the increased earnings prospects for second-level school leavers. Also, the low achievement of some socio-economic groups at primary and secondary levels is a factor which makes third-level "free" education an ineffective policy in social terms. The return of tuition fees is advocated, together with improved student support schemes: in particular student grants should be subject to a much more gradually tapered means test. Higher education institutions which charge cost-related fees should be freed from government-imposed restrictions on intake, especially into medicine.

### INTRODUCTION

The OECD is in the midst of one of the most significant reviews in recent history of the Irish education sector. This review will need to see through the increasingly muddied and jumbled mix of issues, perceptions and misperceptions that have grown up around the sector particularly over the last year.

A key issue that has emerged recently is the issue of third-level fees. While the Minister has placed this firmly in the "rainy day" category, various groups – most recently the Higher Education Authority (HEA) in their submission to the OECD review group – have raised the fee issue and the possible inevitability of the reintroduction of fees of some description. This is clearly a political minefield; witness the near collapse of the Blair Government in Britain in January 2004 over their plans. All the more reason therefore that some efforts are made to understand where policies such as this deliver, or fail to deliver, on objectives.

\* Much of the work on rates of return in this paper is based on joint work between Harmon and Kevin Denny and Ian Walker. Their input and role in this work is considerable and we thank them. The research assistance of Vincent O'Sullivan is also noted. The usual disclaimer applies.

This paper is a contribution to this debate. It is largely confined to higher education because there is more scope for pricing at that level; at third level policy since 1995-96 has been to supply undergraduate education in the public sector at a close-to zero price but to ration the number of places, using points as a surrogate price. Two and three-year "sub-degree" Certificate and Diploma programmes - the mainstay of the Institute of Technology (IT), formerly the Regional Technical College (RTC), sector - have always been free of tuition fees, largely because the EU policies under which they were developed required it. The paper outlines the evidence on the benefits of education to the individual and to society and examines the impact of a policy such as the abolition of fees in terms of assessing who actually benefits from such a change.

### PRIVATE RETURN TO INDIVIDUALS FROM SCHOOLING

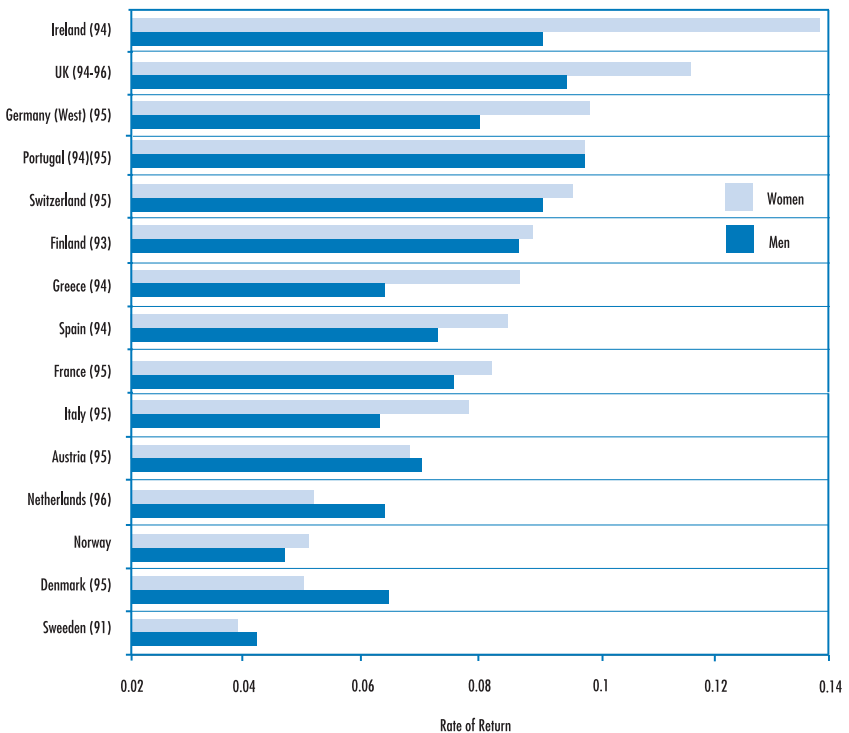
The first reference point is the payoff that education brings to individuals and to society. From a well-developed theoretical foundation, the estimation of the return to a year of schooling for the individual is now one of the most robust findings in empirical economics. This return is typically referred to as the "private" return as opposed to a "social" return which would take into account the costs and benefits of education to the economy, including the private return.

The standard format for econometric modelling of this issue is based on an earnings equation which generally models earnings (hourly or weekly) as a function of education (measured usually by years of education), experience (often proxied by age but possibly an actual measure of on the job experience) and a series of individual, geographical and if appropriate time-specific controls. In this model earnings foregone by not entering the labour force after completing a given level of education are the opportunity costs of remaining in fulltime education at the next level.

The evidence on private returns to the individual is compelling. Despite some of the subtleties involved in estimation there is an unambiguously positive effect on the earnings of an individual from education. Multivariate regression analysis based on Ordinary Least Square (or OLS) suggests a return to a year of schooling of between 7% and 9% when examined across countries. For Ireland standard estimation of the return to education gives returns of around 9% to 11% for males and around 14% for females. The international estimates are somewhat simplified in that they use gross wages as the dependent variable and ignore the impact of tuition fees or of student aid on rates of return.

Figure 1 is a summary of the returns broken down by gender. For some countries like the UK, Ireland, Germany, Greece and Italy there is a substantial variation in returns between genders - the returns to women are significantly higher than the returns to men. Scandinavia is characterised by relatively low returns. Ireland is at the top of the estimated returns in this cross-country review.

**FIGURE 1: PRIVATE RETURNS TO INDIVIDUALS FROM SCHOOLING IN EUROPE, MEN AND WOMEN (YEAR CLOSEST TO 1995)**



Source: Harmon, Walker and Westergaard-Nielsen (2001)

The size of the rate of return to education seems large relative to the returns on other investments. Ireland is no exception in relation to this point. Evidence comparing the net after-tax rate of return on schooling to the pre-tax real return on equity and government bonds illustrates this point well.<sup>[1]</sup> With average returns for Ireland of about 10% based on figures calculated in the mid-1990s, the equivalent average annual return on equities was 7.9% and bonds 1.9%.<sup>[2]</sup> Across most of the EU the corresponding returns to schooling were 9.7% compared to 7.7% for equities and 2.4% for bonds.

## EDUCATION AND ECONOMIC GROWTH

Given the level of these private returns, there would need to be significant returns to society over and above what is accruing to the individual in order to justify state subsidies to higher education. In the economist's jargon one needs to see evidence of "externalities" to motivate the support of the taxpayer to individuals in the form of free higher/further education. If all society gets from the investment are higher paid individuals, it might be logical to suggest these individuals make some contribution to the costs of their education without belittling in any way the very positive outcome that this represents.

The growth literature tends to emphasise the impact on growth from education. If one considers the issues relating to education and growth, and in particular for the Irish economy in the last decade, a key aspect of the debate on the remarkable growth experienced during that period is the role played by education. In a basic growth model the rate of growth in the economy can be decomposed into the parts attributable to the growth in conventional inputs (physical capital and labour) and a residual component due to technological progress. Walsh (1998) reports how up to half of the recorded growth in some economies must be left to this residual, but that as this, in effect, measures the way in which a country can adopt modern technology via the educational standards of the labour force, Ireland's record here is in fact a good one. Walsh shows that the contribution of what is labelled Total Factor Productivity (TFP) to growth rates over the period 1960-1997 is more important in Ireland than in the EU generally. Durkan, Harmon and FitzGerald (1998) reach a similar conclusion by refining the growth in the labour force to take account of the changing composition of the education of that group. Whereas the labour force increased by 1.7% a year between 1986 and 1996, the education-adjusted labour force changed by 2.7% per annum.

[1] de la Fuente, 2003

[2] Computed over the period 1950-2000: short-term returns may be unreliable because of financial market volatility



However, while acknowledging the role of education in Ireland's recent economic improvement, Walsh points out that a number of other factors are as important: fiscal stabilisation and restoring investors' confidence in the economy; moderation in labour costs; reductions in the overall burden of taxation; avoidance of over-valuation of the exchange rate; increased flexibility in the labour market; and successful industrial policies especially in relation to foreign direct investment. In other words, education could be seen as a necessary condition to encourage growth but is of itself not sufficient. Moreover, it is not always clear that cross-country differences in education are a cause rather than a result of high income levels or past income growth.

### ABOLITION OF FEES A FAILED EXPERIMENT?

The evidence on private returns is compelling and the evidence on social returns is, at best, unclear. Given this to be the case, a policy shift such as the 1994 move to free third-level education could perhaps be justified on the basis of expressed objectives of improving access to higher education; and in particular with the objective of decreasing the inequality of participation as evidenced in several HEA studies.<sup>[3]</sup>

Recent data seem to indicate that the policy has failed in these terms, as inequalities on participation have not decreased in recent years. Indeed, the most recent HEA study has been interpreted as showing that the long-run diminution in inequality (often under-emphasised in reporting the results) has been halted. However, this would seem to be an unwarranted and simplistic conclusion. The 1990s saw significant changes in the youth labour market which could have been expected to have an effect on foregone earnings and therefore on the demand for education. This is not to imply that rates of return actually fell, but that the impact of fees on private costs tells only part of the story. In particular the front-end loading of costs relative to return may have implications for the impact on demand by social class.

Table 1 uses data from School Leavers surveys between 1994 and 1998 (when the surveys were unfortunately discontinued). It takes those who graduate from second level with a Leaving Certificate and who enter the labour force, the annual unemployment rate one year later, the estimated earnings of Leaving Certificate labour force entrants and the *expected* wage (wage multiplied by the probability of employment) to show the following.

[3] Surveys of third-level entrants undertaken by Clancy in 1980, 1986, 1992 and 1998

**TABLE 1: PERFORMANCE OF LEAVING CERTIFICATE GRADUATES**

Year	% Unemployment	Gross Wage (€)	Expected Gross Wage(€)
1994	28.5	7,622	5,448
1998	8.6	8,471	7,739

Between 1994 and 1998, the annual gross wage of Leaving Certificate Labour Force entrants rose by about €850 or 11.1%. However, adjusting for the fall in unemployment, the expected gross wage increased by about €2300, an increase of 42%. This increase is roughly equivalent in size to the saving in fees, so if there was "no effect" coming from the abolition of fees this is no surprise: there was very little net change in the total private cost of education (fees plus foregone earnings).

Furthermore, the following considerations come into play.

- For those on lower incomes, who never had to pay fees in the first place, the labour market changes would have had a net negative effect on demand and participation.
- The higher one's rate of time preference, the greater the negative effect of increased post-secondary school expected earnings on the demand for higher education. If time preference rates vary across social classes this effect may be further magnified.
- There are some indications that, because of a fairly low income thresholds for grant eligibility, and sharp tapering-off of eligibility with respect to income, fee abolition may have been of benefit to lower-to-middle income families (that is, not poor enough to benefit from the means test for fee-grants). Given that the total number of places was rationed, abolition of fees may have led these people to "crowd out" prospective entrants from lower-income families who had previously passed the means test.

The abolition of tuition fees from 1994 onwards has been an expensive experiment. The cost has been recently (2002/03) estimated at around €211m or about 15% of all government expenditure on third-level education. The net cost (compared with the situation pre-1994 when some students qualified for means-tested fee grants) is close to 10% of the higher education budget. When tuition fees were abolished, the cost was offset by a restriction on covenanting income, which was calculated to make the policy largely self-financing. However, this is potentially misleading: whatever about the politics of the move, the resources saved by restriction of covenanting could have been used to finance a variety of interventions.

From an economic point of view the full opportunity cost of the funds devoted to fee remission is what matters, not the precise taxation measures used to finance them. The cumulative cost in 2003 prices is about €1.5 billion (there are no consistent or complete data on the annual costs over the period 1994-2003). The overall effectiveness of the experiment has not been evaluated with the degree of rigour which is warranted, given the amounts involved.

## ADJUSTING THE SUPPLY OF PLACES

A well-functioning market for higher education would see the supply side adjusting to price signals. The nearest things that can be observed to "prices" are the points requirements for courses, given that tuition fees are zero (and even pre-1994 were an administered price). Is there any evidence that the supply of places has adjusted to the points "price"? For many years there has been a conscious attempt to increase the number of places in relation to perceived manpower requirements, the most recent being the increase in the ICT-related course provision during the past decade or so. However, these measures were based on manpower forecasts and not on rate-of-return criteria. Moreover, the abolition of tuition fees was to some extent a move in the opposite direction to a normal market response. Prior to 1994, tuition fees were charged for degree courses (at the time these were almost synonymous with university courses) and were not charged in the former RTC sector for Certificate and Diploma courses. Degree courses have in general attracted higher points at entry than Certificate/Diploma courses. Abolition of tuition fees therefore lowered the relative price of courses for which demand was highest, which is exactly the opposite of a normal efficient market adjustment.

Much of the expansion of the 1980s is to a significant extent accounted for by an increase in RTC/IT intake, whereas traditionally high excess demand areas, especially medicine, had their intakes largely frozen. There appears to have been little feedback of the type which would have produced a normal market adjustment. In the 1990s the increase was more evenly distributed across the system but many the restrictions remain, especially in medicine. During the past two years the downturn in the ICT sector has led to a dramatic fall in applications for computer courses. This is often depicted as causing a future shortage of ICT personnel, but do those who plan the increased intake know something that thousands of students and their parents do not? Or are students making long-term career choices on the basis of short-term cyclical labour market signals? Having free tuition does not help the market to adjust: if fees in ICT courses were free to move with the economic cycle, some of the large quantitative shifts in numbers demanding places could have been dampened.

## SUGGESTED RESPONSES

This paper has outlined some of the summary evidence on rates of return to individuals from education and has considered some of the wider issues. A number of responses as follows appear appropriate.

- (i) Introduce cost-related fees for all undergraduate courses. At present nearly all undergraduate tuition fees are paid directly to higher education institutions by the Department of Education and Science under the so-called "free fees initiative". These fees are an estimated 60% of unit costs in Arts, Law, Medicine and Business; 50% to 55% in Engineering and 25% to 30% in the very high cost areas of Veterinary Medicine and Dentistry. If institutions were allowed to charge a fee related to standard system-wide unit costs for an area of study, high-cost (inefficient?) courses would come under pressure.
- (ii) Use the savings to finance extra student loans and grants. Some of the policy initiatives proposed in the Department of Education's *Supporting Equity in Higher Education* study are modest, such as: extending grant thresholds by about €5,000 and introducing tapered tuition fees for those whose family incomes are between €115,000 and €130,000. The sums involved are small (less than €20m for each of the two measures compared with the estimated "free fees" cost of €211m and €1.4 billion of government expenditure on all higher education). A radical, across the board re-introduction of fees would yield a much higher revenue and enable a correspondingly radical change in student support measures.
- (iii) Have a gradual tapering of grant eligibility with respect to income (say between €30,000 and €130,000). Some of the current (and proposed) tapering is much too steep: for example, it appears that, between a family income of €29,000 and €32,000, there is a loss of maintenance grants of €2,500. If a student from a family with an income of €30,000 were eligible for a full fee subsidy and a full maintenance grant, amounting to €10,000 in total, and if the subsidy were withdrawn at a rate of 20% with respect to income, then the €10,000 would be lost at an income of €80,000. Remembering that income tax at the margin would be as much as 42% (+PRSI), the total effective marginal tax rate is 62% (+PRSI). So a withdrawal or tapering rate of <20% might be warranted.

- (iv) Target grants on social need and loans on prospective earnings if possible. One option might be to continue with grants to students but to recoup at least some of the costs through a graduate tax levied at a low rate. An alternative, income-contingent loan scheme would achieve a closer relation between individual repayments and sums advanced by way of student aid.
- (v) If warranted, use the changes to transfer resources to earlier interventions at first and second levels but this should not be based on *ad hoc* measures.
- (vi) If institutions can earn fees based on marginal costs, remove quantitative restrictions. This would also require that the HEA's funding formula interacts with fee policy in a way which produces appropriate incentives for institutions. A glaring example is in medicine: intake of Irish students was limited in the 1980s when there was a perceived surplus of medical graduates. The limits are still in place.

The closing view is that the debate on these issues took place at entirely the wrong part of the argument. The simplistic argument is that free fees helped students from poorer backgrounds to gain access to higher education; so reintroducing fees would reverse this. It is based on the idea that students from poorer backgrounds are primarily financially constrained, which is a widely-held belief that has little empirical support; for example, higher education was free in the UK until 1997, but Professor Alison Wolf of the Institute of Education in Britain has shown that over the last five decades participation rates for students from lower socio-economic backgrounds has been a fraction of those whose father is a manager or professional.

Studies by Nobel Laureate in Economics, James Heckman, and by researchers at the Institute for the Study of Social Change at University College Dublin have shown that at all levels of education the decision to remain in school is more influenced by family characteristics than current financial situations. Heckman in particular has pushed for early interventions. If money is not that significant (at least not directly), the main constraints for staying on in education are academic ability (in as much as the state examination system measures this) but more crucially taste or preference for schooling. Therefore, the fees debate is simply taking place at the wrong part of the argument. The *Supporting Equity in Higher Education* (2003) study acknowledges that there is much more to inequality of access to higher education than student aid and student fees. Much of the inequality can be attributed to differential performance well before third-level entry: for example, in 1999 the proportion of children of higher and lower professionals getting less than five "D" grades in the Leaving Certificate was 9%, for children of manual workers it was 28% and for unemployed it was 51%. Changing

this relationship between family background and secondary school performance is more likely to deliver the sort of policy changes the Minister for Education and Science wants - an increase in achievement of children at risk.

Furthermore, choices in education investment must not become issues for "soft" argument. Policy should be shaped from coupling the best findings in empirical research with excellent and informative baseline data - economics, and microeconometrics in particular, has a huge amount to offer.

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## FROM FARMING POLICY TO FARMER POLICY: THE EVOLUTION OF THE CAP



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This article briefly reviews research results relating to costs of agricultural policies worldwide and in the EU. It traces the evolution of EU agricultural policy and discusses some of its effects with special reference to Ireland. Changes under the Mid-Term Review (MTR) are of a profound nature and will expose EU agriculture more than heretofore to market forces. Taken in conjunction with likely changes in world trading rules, there will be major implications for farm structure, volume of farm output, agricultural exports and imports. The Common Agricultural Policy (CAP) is now more of a social policy for farmers and less of a farming policy.

### GLOBALISED EFFECTS OF THE CAP

Tokarick et al., (2002) estimated the global static or immediate welfare gains from the removal of all agricultural policies worldwide at \$128 billion. The largest gainers would be the major agricultural producers (Australia, Canada and New Zealand) and the countries with the most distorted markets (Japan, Korea, Norway, Switzerland, EU). The gain for industrial countries is estimated at \$98 billion (0.43% of GDP) while that for developing countries is \$30 billion (0.51% of GDP). However, they state that the dynamic gains from the removal of agricultural protection could far exceed the magnitude of the static gains. Dynamic gains arise from adjustment of economic sectors.

In its original form the European Union's (EU) CAP offered very significant protection to EU agriculture and enhancement of the incomes of EU farmers. It did this largely through the use of import levies and tariffs, control of internal supply, payment of export subsidies and, increasingly since 1992, direct payments. The direct impact for the EU of all of these was to raise agricultural and food product prices. As a country in which agriculture was and, to a lesser extent, still is relatively important, Ireland has gained very substantially in financial terms from this policy. However, gains for some may be costs for others.

\* The author wishes to acknowledge the contribution of Con Lucey, Chief Economist with the Irish Farmers' Association, to the section on the "Likely Future Impact of CAP Reform".



The immediate costs of the CAP are as follows:

- the monetary transfer, amounting to half the EU budget, from tax payers to farmers and administrators in support of EU agriculture;
- higher consumer prices in the EU because of a protected market;
- depression of world prices because of the supply of EU subsidised output on world markets (this effect is reducing significantly as EU farm exports to world markets decline);
- higher costs for both factor and non-factor inputs used in EU agricultural production.

Longer-term costs of CAP arise largely because of resource misallocation. Protection induces countries to produce commodities to an extent that is not consistent with their comparative advantage status thus giving rise to relatively inefficient production and to a foregoing of economic growth.

The general thrust of research results is that the CAP historically has had a major influence on the production of agricultural products both within and outside of the EU, on international trade in agricultural products and it has led to structural changes in economies. The CAP stabilises farmer prices relative to world prices and raises EU farmer incomes by \$70-\$80 billion a year. The consequent enlargement of the EU agricultural sector is claimed to have had negative effects on other sectors of the economy: loss of competitiveness in manufacturing, lower manufacturing output and exports, lower economic growth and higher unemployment – including the claim that the CAP was responsible for a loss of one million jobs in the EU manufacturing sector alone.<sup>[3]</sup>

### **LOCALISED EFFECTS**

Agriculture in Ireland is still relatively important. Matthews (2001) states that: "Conventional estimates of the economic contribution of agriculture and the agri-food sector suggests that overall it still accounts for around 10% of total employment, GNP and exports....". He showed that, while the net economic contribution of Irish agriculture in the year 2000 amounted to IR£1.6 billion, the sum of IR£1.2 billion of that contribution derived from net EU transfers through budget and trade effects. Harte (2002) showed that one element in the subsidisation of EU agriculture, namely direct payments, comprised over 70% of the farm income for all farming systems in Ireland in 2000 and varied from 20% for dairying to well over 100% for cattle and sheep systems.

[3] Borrell and Hubbard, 2000

The monetary benefits accruing to Ireland because of the CAP have been prolonged and significant. The effect has permeated rural Ireland and provided improved quality of life for many. However, even in Ireland the CAP has not been without its negative effects. There is a growing taxation burden on Irish taxpayers and one can question the equity of payouts among farmers and as between farmers and other groups.

O'Connell (1973) showed that the CAP would militate against increased employment in Irish food processing, against product diversification and against the development of markets and marketing expertise. As recently as 2003, EU Commissioner Franz Fischler criticised the lack of product diversity of the Irish dairy industry but did not acknowledge the role of the CAP in contributing to this and to a similar outcome in the Irish beef processing industry.

As well as raising prices the CAP has stabilised them. This has obviated the need for free market mechanisms which can also provide stability. While one accepts that government must be the means by which agricultural incomes are raised through taxation transfer where the need is perceived, it is more difficult to accept that government must be the main means through which stability is achieved. Free market operations such as futures markets, forward contracting, crop insurance and others are likely to be more cost efficient in this regard.

## CHANGES IN POLICY DIRECTION

### ***MACSHARRY REFORMS, POST 1992***

In its original form the CAP was almost wholly oriented to increasing the prices that farmers received for agricultural products. The MacSharry reforms instituted a move away from this and towards the payment of subsidies on land area for cereals and on ownership of animals in livestock farming. These were known as Direct Payments (DPs).

While the MacSharry DP system for animals was designed as a headage payment, it worked out largely as a relatively flat area payment. It was accompanied by extensification payments to encourage the less intensive use of land in beef farming. Together, these two policies worked effectively as an area payment, as farmers adjusted either their cattle numbers or their area farmed or both to give very similar payments per acre across all farm sizes with the exception of the largest size category on which there was a payment cap.<sup>[4]</sup>

[4] Dunne and O'Connell, 1998

Much of the value of the direct payments in beef production became capitalised into the price of factors specified in the compliance criteria, namely eligible animals and land. In certain circumstances, farmers seeking to maximise their extensification payment revenue had a very strong incentive to acquire extra land even at relatively very high rental. Apart from impacting on the profitability of beef production itself, this also impacted on the availability of land for and profitability of other enterprises such as dairying, cereals, sheep and forestry.

Some unintended effects may also have arisen from these policy changes. Matthews (1999/2000) estimated Total Factor Productivity growth in Irish agriculture in the period 1960-98 as 1.7% per year but as only 0.7% per year post-1992. He suggests that the inefficiencies associated with the post-1992 policy may have led to a once-and-for-all reduction in productivity – a seriously negative outcome.

### ***CAP MID-TERM REVIEW, POST 2003***

Given the undesirable performance outcomes of the post-1992 CAP policy, as described above, and others such as the high levels of financial and other cost involved in complying with the associated bureaucracy, it is not surprising that ideas about policy change began to emerge. On foot of the finding that the post-1992 system in the EU beef sector effectively worked out as an area-based system, Dunne and O'Connell suggested that it would be more logical to use area-based criteria directly and to make actual payment conditional on the provision of valued public goods relating to the environment and other aspects.<sup>[5]</sup> Under this system market forces would determine production and the direct payments themselves could be used to provide a more targeted method of income support. There could be a national envelope to allow Member States to address local weaknesses, exploit local strengths and to provide a basis for competitive marketing strategy via product differentiation.

They further suggested that perhaps a better approach to a complete area-based system might be a mix of payment per farmer and a reduced payment per hectare. This, they argued, would reduce the capitalisation process which had heretofore given rise to inflated land prices and rentals and would provide a stronger social dimension to meet local needs especially in the poorer regions of the EU. The process could be implemented on the basis of an annual, sample-based, all-farm audit.

Very much along these lines, the EU Commission published its Mid-Term Review proposals in July 2002 and in January 2003 adopted a package of proposals to reform the CAP.

[5] Dunne and O'Connell, 1998 *ibid.* and 2000

Among other things, the reforms included the following:

- a payment or entitlement attached to the farmer who establishes it independent of current production (decoupling);
- the entitlement to be based on the average amount of subsidy per hectare received in 2000-2002 and the number of hectares of land farmed (whether owned or rented) in 2000-2002;
- the payment to be conditional on environmental, food safety, animal welfare and condition of farmland criteria, (public goods);
- major price cuts for dairy products;
- stronger rural development policy;
- farmers to receive a single yearly cheque.

In June 2003 modifications were agreed which give EU Member States a degree of choice in the implementation of decoupling. The analysis which follows is written in the context of full Irish decoupling which seems likely at this time.

### LIKELY FUTURE IMPACT OF CAP REFORM

The general thrust of the current round of CAP reform is to move towards having EU farm production decisions based on returns from the market rather than on political decisions and subsidy payments. An industry organised on a free-market basis can provide greater efficiencies in many respects compared with the alternatives. As Lamb points out with regard to the world's largest economy: "Consumers have benefited from loosing the beneficial forces of the market place in sector after sector of the US economy. What markets have done for so many other sectors of the economy, they can do for the food and farm system as well."<sup>[6]</sup>

While the efficiency argument in favour of the free market may be generally acceptable, it might be qualified in respect of the specific and indeed unique (in relation to the importance of incoming EU revenues) situation of a country like Ireland. Here agriculture is still a relatively large sector comprised mainly of small-scale operators which is of significant benefit in maintaining the economic and social fabric of the Irish countryside. At the very least one would want a measured pace of movement towards an alternative policy to ensure that whatever replaced the existing system left the country both nationally and regionally at least as well off in economic and social terms as under the previous policy.

[6] Lamb, 2002

More specifically, as a result of the implementation of the Mid-Term Review of the CAP, it is likely that EU agricultural production and exports will decline and imports will increase. Long-term, structural EU food surpluses will not be a problem. EU farm product prices may be more variable than in the past. Given that farm production is not tied down by the conditions attaching to receipt of DPs (????), farmers will have more freedom to engage in other activities both on and off-farm. It is likely that there will be more diversity in products and a growth in the commercial exploitation of geographic and localised factors through farmer branding and in other ways.

EU taxpayers will not benefit, as there is no planned reduction in the EU agricultural budget. EU consumers will enjoy some reduction in food prices. However, given that EU farmers probably receive no more than 30% of the average consumer Euro spent on food, a relatively large farm-level price reduction of 20% will result in only a 6% reduction in consumer food prices. Thereafter, consumer food prices will probably continue to increase as the marketing sector continues to add more services and as unit costs in the marketing sector increase, such costs being driven as always by factors which are quite unrelated to agricultural costs, prices or farm incomes.

### ***IMPACT ON IRISH AGRICULTURE***

Recent research on the effects of decoupling in Ireland showed that, in the medium term, beef and lamb production would decline, (prices would increase), milk production would be largely unaffected and production of all other commodities would increase.<sup>[7]</sup> The result for milk arises because production is taken as continuing to be constrained by the EU dairy quota regime in existence since 1984. However, the Mid-Term Review did not just introduce decoupling of direct payments. It also introduced a reduction in dairy product support prices as a result of which it is likely that milk price will decline by approximately 20% over the 2003 level. In itself this will be likely to have an effect on the structure of the industry and possibly on the production level.

Available projections are based on modelling exercises. Models are built on historic data. Decoupling is a totally new policy approach for which no historic data exist as to how Irish producers might react. Projections therefore must be treated with caution and there is urgent need to institute some good farm-level research to elicit likely production responses in the context of the proposed new policy environment.

Lucey (2003) expects a major revamp of structure in dairy farming. On the basis of farm-level milk prices and dairy farm incomes declining, he states the following: "This is going to force a major structural change among Ireland's 27,000 dairy farmers.

[7] Matthews et al. 2003, FAPRI 2003

Medium-sized dairy farmers, with a 45,000-gallon quota, will no longer be viable. The choice will be stark, either invest in increased scale against an uncertain future or get out now." The questions of land and finance availability will undoubtedly pose problems.

Best placed will be those dairy farmers who, having been constrained by the quota system, engage extensively in dry-stock production with attendant cattle premiums. As milk prices decline and in the context of the quota losing its relevance, they will probably reduce their dry-stock enterprise while keeping their base period subsidy entitlements and extend their dairy enterprise on their existing land or through purchase/rental of land.

The Irish dairy processing sector will have cheaper raw material to process but so also will other EU countries' dairy processing sectors, so Irish competitiveness will not improve. The reduction in dairy product intervention (support) prices will pose difficulties for Irish dairy processors. The same forces which in the past have led Irish dairy (and beef) processors to make extensive use of the intervention system will still be there post-2003 and post-2007 even if the intervention system is not. The Mid-Term Review did nothing to change the extreme westerly island location of Ireland, the economics of seasonal milk production in Ireland, nor did it even acknowledge the disadvantages for Irish processors in trying to break into EU and especially continental EU markets or the more recent issue of re-nationalised EU markets.

Product development, foreign market investment and strategic alliances would seem to be at least part of the necessary response of the Irish dairy processing sector to the new policy environment. A reducing and disappearing intervention system may also mean that we can no longer afford the "luxury" of flouting market requirements with a highly seasonal production pattern.

The prices of feeder cattle and calves were inflated because of the capitalisation of part of the direct payments on adult cattle into the prices of younger stock. With decoupling, the prices for calves and feeder animals will fall. This, of itself, will reduce the incomes of suckler farmers, dairy farmers and others who did not receive premia on such animals but who benefited through the capitalisation effect on the sale price. It will increase the incomes of finishers who will now not part with any of their premium income in the prices they pay. In rough geographical terms, there will be a movement in income and purchasing power from the west of Ireland to the east.

A general decline in farm product prices will cause a decline in farm input usage and prices. The extent of price decline will be determined by the size of the reduction in farm product prices and by the elasticity of supply of the farm inputs. The price effect is likely to be modest and less than the usage effect.

### ***IMPACT ON LAND USE AND VALUE***

The effect on the agricultural land market and on the scale of farming is more difficult to work out at this stage. The extensification system by which farmers received extra subsidy for using more rather than less land to produce an animal was an important driver of increased land prices and its removal should in itself lead to lower land prices and rentals. However, a farmer's ability to draw down his full base period EU receipts under the new system will still be dependent on him continuing to hold his base period acreage whether that acreage was owned or rented. This will act in the direction of pressuring many farmers to hold on to their 2000-2002 land area thus curtailing an increase in market supply of land.

On the one hand this policy change puts pressure on farmers to increase scale for economic survival. On the other this particular aspect of it will act as an impediment to increasing that scale. An alternative approach, which would at least reduce this problem, would have been to adopt Dunne and O'Connell's suggestion to pay a proportion of the entitlement to the farmer simply because he was a farmer in the base period and let the land market run free, or at least more free.

With an increased demand, possibly from dairy and cereal farmers wishing to increase scale of production, the effect could be quite different in different regions of the country since these enterprises are relatively confined to certain geographic locations. It is likely that there will continue to be significant distortion in land prices post-2003.

In relation to the sale and renting of land, farmers will have the option of selling or letting land with full but extremely varying entitlements attached thereon or selling/renting with no entitlements or selling the entitlements for a capital sum totally separate from the land. Farmers could sell their entitlement for a capital sum and rent out their land without entitlement or possibly put their land into forestry. This could be an attractive possibility for smaller, older and part-time farmers. This would increase the labour supply seeking non-farm employment and would have a positive effect on afforested area. There could be a large increase in the variability of land prices arising from the variability in the level of premium entitlements attached to it.

## FROM FARMING POLICY TO FARMER POLICY

However implemented in Member States, the changes wrought under the Mid-Term Review represent a sea change in the evolution of the CAP. Farming is moving from being a subsidised activity but farmers are still to be subsidised. Whether farmers like it or not, it will undoubtedly and increasingly be seen as a social policy. As a social rather than a farming policy, the basis on which the need for such a policy is assessed will shift away from income from farming towards the income of farming families or households. EUROSTAT (2003) the European Union Statistical Office states: "An income measure which aims to be a proxy for the standard of living of the agricultural community, though clearly not an exact one, will need to cover income from all sources, not just that from farming activity. It will focus on the household or family unit rather than the farmer (agricultural holder) alone."

In the longer term the importance of purely agriculturally-generated income in farm households has been declining. In 1999, 2000 and 2001 an off-farm job existed on 45% of farms. On 64% of farms in 2001 the farmer and/or the spouse had some source of off-farm income, be it from employment, pension or social assistance.<sup>[8]</sup> As the data in Table 1 show, 'Farm Households' are in a relatively strong position.

**TABLE 1: BASELINE AND PROJECTED EMISSIONS OF GREENHOUSE GASES FOR IRELAND, MILLION TONNES**

Item	Urban Areas	Rural Areas			State
		Farm Households	Other Households	All Rural Households	
<b>Total Direct Income (A)</b>	642.19	568.79	462.43	483.80	585.41
<b>Total State Transfers (B)</b>	80.12	67.06	87.58	83.46	81.32
<b>Gross Income (A+B)</b>	722.31	635.85	550.02	567.26	666.72
<b>Total Direct Taxation (C)</b>	136.60	66.40	65.56	63.28	97.18
<b>Disposable Income (A+B+C)</b>	585.71	569.45	470.76	490.59	551.60

Source: Household Budget Survey 1999-2000; Final Results, Central Statistics Office, Dublin.

[8] Teagasc, 2001



The disparity between purely farming income and non-farming income in terms of average industrial earnings is well documented. However, as the data in Table 1 illustrate there is no similar picture in relation to household incomes. Even ignoring the relative asset/net worth situation of different household types, farm households have an average weekly disposable income greater than other rural households, all rural households and the average household in the Irish State, but still slightly less than that of urban households.

Income comparisons can be quite complex exercises and may require a great deal of qualification. Nevertheless, if one uses household income as a criterion of welfare, it is apparent that farm households are in a relatively strong position. Given the increasing "social nature" of the CAP, others in society and especially other rural dwellers and households are likely to increasingly question the basis in equity for and the extent of monetary transfer from taxpayers to farmers.

While change can be stressful and EU farmers have probably had more than their fair share of policy changes and indeed reversals, it is likely that, once they get over the initial shock, they will realise they are better off having their businesses directed by market forces rather than by politicians and bureaucrats. There will be much less bureaucratic stress and cost. Ultimately, efficient and energetic farmers will be able to forge ahead. On-farm operational factors will be understandable because they are dictated by market forces rather than by political expediency. Farmers will be able to get back to applying science and knowledge to what they want to do; that is, produce food and food raw materials.

Apart from changes occurring at farm level as discussed above, the Mid-Term Review will also drive change further along the food chain. However space does not permit a discussion of this.

## CONCLUSIONS

There are significant costs and economic inefficiencies associated with agricultural policies worldwide. An important contributor to these costs and inefficiencies has been the EU's Common Agricultural Policy. Dismantling the CAP would bring significant benefits to well-developed, low-cost agricultural producing countries and to the EU itself and some benefits to lesser developed countries.

For 30 years Ireland has benefited very substantially in monetary terms from the operations of the CAP. However, even for Ireland the CAP has had some negative consequences and has created distortions and anomalies in relation to aspects of food processing, resource pricing and productivity growth in agriculture.

The most recent reform of the CAP, the Mid-Term Review, sets out to largely decouple direct payments from current production and to compensate farmers with payments based on their EU payments receipts in the base period 2000-2002. Thus EU agriculture will be exposed to market forces in a way not heretofore experienced. As a consequence, EU agricultural production and exports will fall and imports will increase. The direction of change is relatively easy to discern. The much more difficult questions are the extent and speed of such changes, especially when they may be further reinforced by the outcome of World Trade negotiations in relation to more liberal world trade and by currency exchange rates such as the recent and significant strengthening of the euro against the US\$.

For Ireland some of the consequences are likely to be a reduction in the volume of beef and lamb output but increases in the output of some other agricultural products. Dairy product prices will decline, as will the incomes of dairy farmers. Significant restructuring of dairy production is expected. The pig, poultry and horticultural industries have long ago absorbed the impact of unsubsidised production and have nothing additional to fear on that particular front. Their growth rates will continue to be determined largely by economic, technological and generally market-driven factors.

The intensity of agricultural activity will decline for many farmers and farming activity will cease altogether for some. This will cause some increase in the labour force available for non-farm employment. It is likely that significant distortion of land prices will still remain arising from restrictive conditions attaching to receipt of the new decoupled payments.

In addition to the Mid-Term Review, freer international trade is looming with the possibility of significantly reduced protection of EU agriculture against low-priced food imports from the rest of the world. Questions arise in relation to the expected duration of decoupled payments. Are they to be paid in perpetuity or is there a definite phasing-out period in mind? While there is currently no provision for index linking of entitlements to allow for inflation, will this continue to be the case? Do the EU bureaucrats plan on eventually opening up EU agriculture to world competition without

any subsidisation? Given the huge differences in scale and cost structures between European farms and those in places such as South America, Australia, New Zealand, North America (even though US agriculture is still heavily subsidised), how feasible is it to talk about totally unsubsidised farmers in the EU or in Ireland?

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