4 Modelling the future to 2020

This chapter models solutions for meeting the government's child poverty targets ...

The government's target is to cut child poverty to half its 1998/99 level by 2010 and to 'end' it by 2020. This chapter reports on the results of policy simulations co-ordinated by the Institute for Fiscal Studies (IFS), looking first at what the consequences of current policy are likely to be for child poverty and second what kinds of policies can be modelled that would enable the targets to be reached[51].

... but can only take some factors into account, to demonstrate the scale of the task rather than give an exact prescription.

The results presented in this chapter are based on micro-simulation modelling, which attempts to predict the distribution of household income – and therefore relative poverty – given forecasts of key demographic and economic trends, and details of future tax and benefit policies. The modelling was carried out by Mike Brewer and James Browne at the IFS, in partnership with Professor Holly Sutherland, and made use of demographic and economic forecasts provided by Professors Phil Rees and Paul Gregg.

This exercise is constrained by what it is possible to model: that is, where a particular policy has a reasonably predictable effect on household incomes. Some policies – such as improving education levels of tomorrow's parents – may be fundamental to the long-term reduction in child poverty, but their results cannot readily be projected. Although this chapter estimates the cost of only using tax credits, benefits and welfare to work policies to reduce child poverty, since these have a quantifiable impact, the report is not arguing that the government should rely exclusively on these policies.

Figure 9 shows which factors are inside and outside the model, and relates these to the wider picture of what kinds of trends will have an impact on child poverty. It starts by showing the context: a fairly even division between two groups facing poverty, the minority of children without workers in their households with a very high risk of being poor, and the much larger number of children in working families with a smaller risk of being poor. For the first group, most of the factors reducing poverty risk can be modelled because they depend on state transfers. For the second group, there are many more imponderables, since a number of factors can affect earnings, over which public policy only has limited influence. The third key issue is the relative size of the two groups – how many children have workers in their households. Public welfare to work measures affect this, and the model projects their impact based on certain assumptions. It also projects

Figure 9 Modelling reductions in child poverty

the effect of some predictable characteristics of parents, likely to affect poverty rates (see below). However, the impact of many other factors on the chances that parents will be in work remain highly unpredictable.

Thus, like any economic forecast, the results in this chapter are subject to considerable uncertainty whose importance is unknown, and these uncertainties are much greater for 2020 than for 2010. We do not attempt to predict the ups and downs of the economic cycle, or economic shocks, and so results must be understood as an illustration of what would happen ‘on present trends’, rather than a firm prediction of the future. Changes in the characteristics of the population are important for child poverty, and some key changes have been reflected in the forecasts. In general, their impact is favourable. Lone parents are becoming older and better qualified on average, which reduces their risk of worklessness and poverty. The ageing population is likely to slow growth overall in the long term, and this will make it relatively easier for poorer groups without market income to 'keep up' with rising living standards, and hence contain or reduce relative poverty.

Another thing to bear in mind is that the model presented in this chapter is 'static': it does not take account of the ways in which individuals move in and out of poverty, only giving snapshots of the characteristics of the whole population at given points of time. Ultimately, the goal should be to limit the damage caused by poverty during the course of people's lives, and to tackle the processes that create it. Thus the 'static' population profiles described by the model show only one part of the picture. Another is the extent to which individuals remain vulnerable to the recurrence of low income, for example if they are in insecure jobs or if their incomes have only been raised just above the poverty line.

Box 8: Definition and measurement of child poverty targets

As in Chapters 1 to 3, poverty is here defined as being below 60 per cent median household income, so for poverty to fall, poorer groups' incomes must not just rise in real terms, but must rise faster than the median. However, the formula for adjusting household income according to family composition ('equivalisation') is different in this (future-oriented) chapter than in the previous ones, because from 2007, the government will be adopting a new, internationally standardised definition. (This is the OECD scale rather than the 'McClements scale' hitherto used in the UK.) For child poverty, this uses a *before* housing costs measure, which was 26 per cent in 1998/99 with a target for 2010 of 13 per cent, rather than 33 per cent and 16.5 per cent respectively for the *after* housing costs measure reported above. The choice of measure makes little difference to the *number* of children taken out of poverty by any particular policy. However, because more children are in poverty before than after housing costs, the choice of a before housing cost measure produces higher *percentage* reductions than if an after housing cost measure were used, and therefore makes it easier to reach the targets, expressed as percentage reductions.

Various interpretations have been put on what it means to 'end' child poverty. Getting the numbers all the way to zero is generally seen as unrealistic: in a 'snapshot' survey, some people always have very low or even negative incomes, which can for example be caused by a temporary business loss. Here we have used the ambitious criterion of getting child poverty below about 5 per cent, which is around the lowest ever achieved in any European country. This would be a cut by over 80 per cent in the number of children in poverty compared to 1998/99.

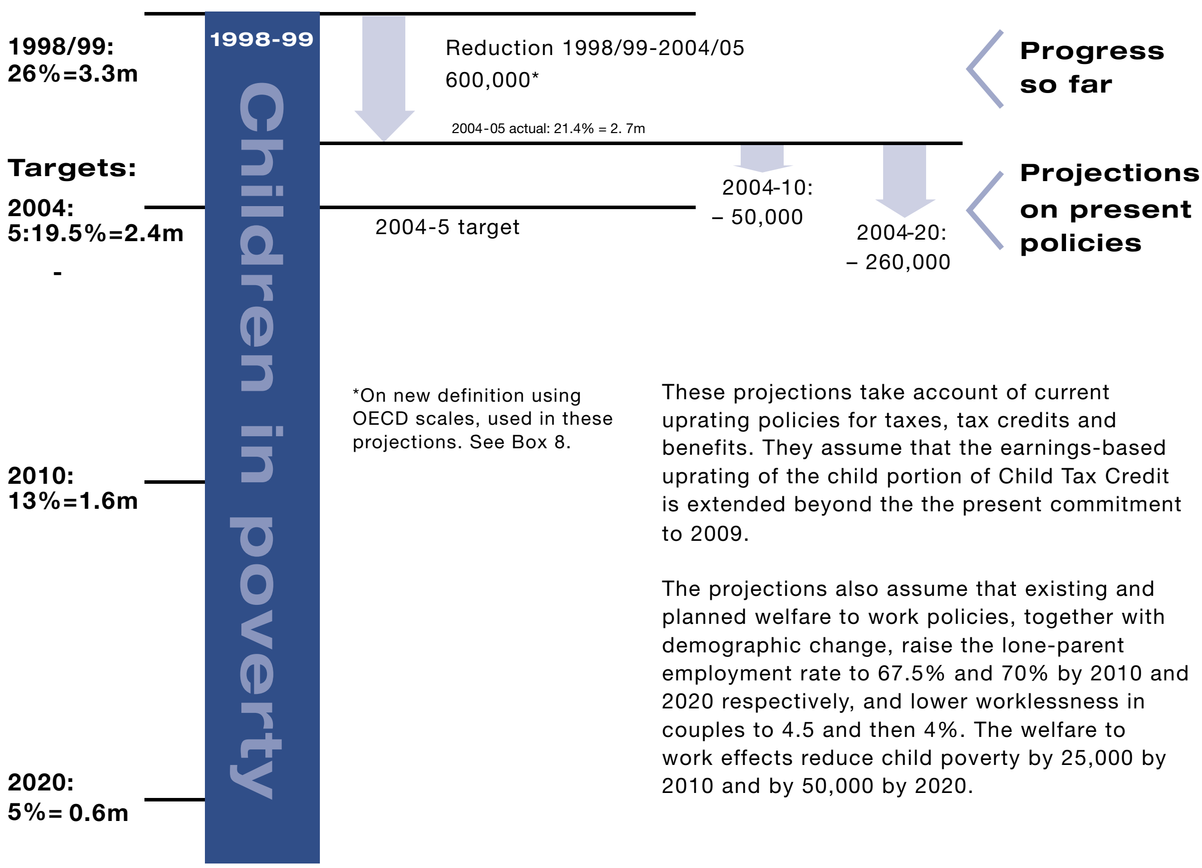
The 'steady as she goes' scenario

What would happen to child poverty in 2010 and 2020 if present policies were continued? These policies include:

- The measures mentioned in Chapter 3 to improve employment.
- The pledge, so far to the end of the present Parliament, to increase the child element of Child Tax Credit (that is, the portion targeted on low-income children) in line with earnings. We assume here that this policy is continued, which would require £1.8 billion more to be spent per year in 2020 than currently budgeted for.
- The uprating of most out-of-work benefits, of Child Benefit and of the Working Tax Credit in line with prices.
- The freezing of the family element of the Child Tax Credit.

Present policies will contain child poverty but not reduce it.
The consequences of these policies are shown in Figure 10. The results show clearly that even if current policies succeed in expanding employment as well as putting more in real terms into the Child Tax Credit, child poverty will not continue on its steady downward trend of the past few years. There will be a small numerical fall in the number of children in poverty, but this will fall far short of meeting government targets. Indeed, by 2010 the

Figure 10 Child poverty with existing policies



percentage of children in poverty will be slightly higher than in 2004-05, but with a small fall in the child population, the absolute number in poverty will be about 2 per cent lower. This compares to a 41 per cent fall needed to reach the target. By 2020 child poverty will have fallen by 8 per cent, compared to the 78 per cent fall needed.

Thus, tax and benefit policies combined with welfare to work are only just enough to prevent poverty from rising again, and not nearly enough to cut it by around a million by 2010 and a further million by 2020. To maintain and increase the momentum of recent falls in child poverty, more is needed.

Box 9: Percentage-based targets and the number of children in poverty

The child poverty targets have been interpreted in terms of the reduction of the *percentage* of children in poverty. With a falling child population, this means that the *number* of poor children has to fall, for example, by slightly more than 50 per cent by 2010 in order for the percentage to halve. For presentational purposes, the following discussion and graphs are expressed mainly in terms of the number of children in poverty. The targets, however, are based on percentages in poverty, multiplied by the child population in the relevant year.

The reason for the lack of further progress, on current policies only, is clear. With incomes overall growing steadily, the family incomes of poor children have to grow substantially faster in order to cross the relative poverty line. Some will do so by moving into work, but as explained in Chapter 3, in future this is unlikely to make more than a small contribution relative to the targets. The commitment to raise the per-child element of the Child Tax Credit, which goes to low-income families, in line with earnings, will stabilise rather than raise this portion of family income in relative terms. But if other parts of their income fall in relative terms, poverty could deepen. This remains a risk for all families, since Child Benefit is uprated relative to prices rather than earnings, but most particularly for out-of-work families who depend heavily on Income Support, which also rises with prices.

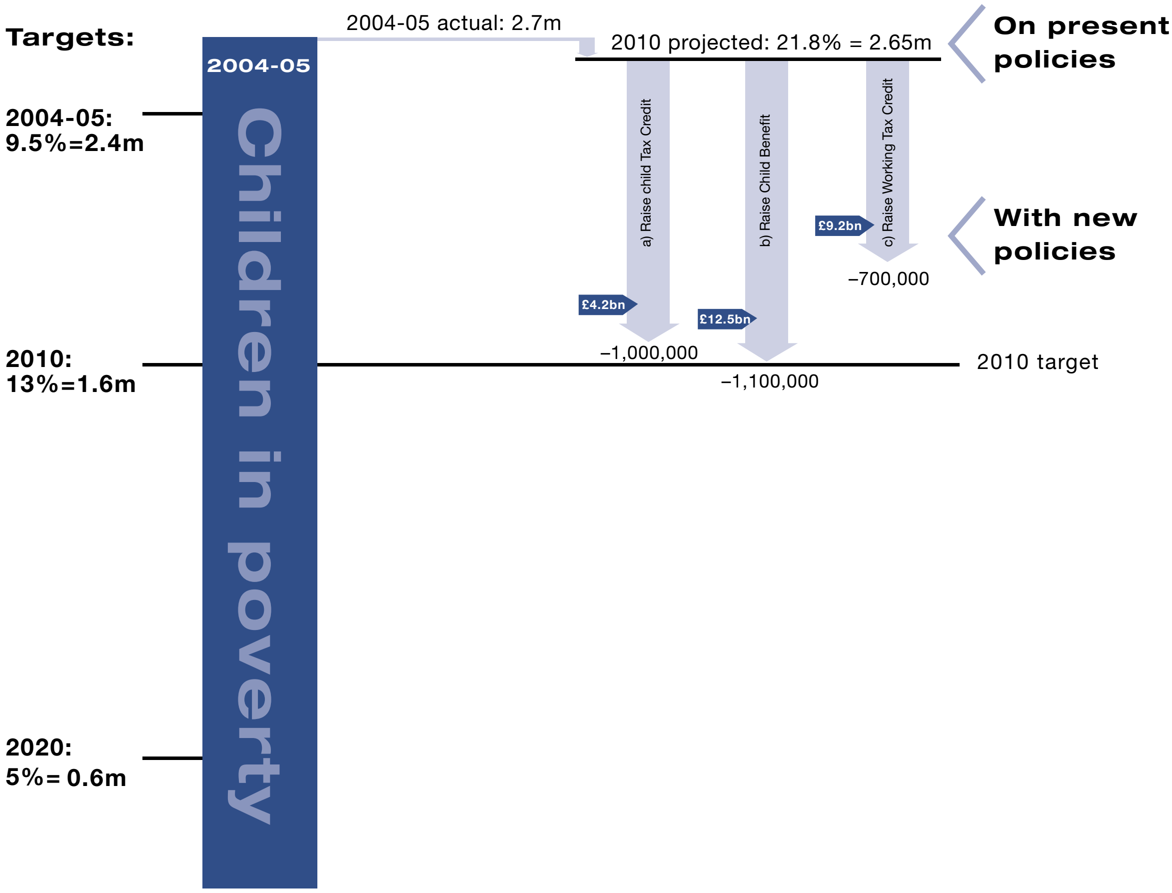
The cost-effectiveness of three individual policies to 2010

Increases in taxes or benefits can reduce poverty effectively, but only using Child Benefit is not cost-efficient.

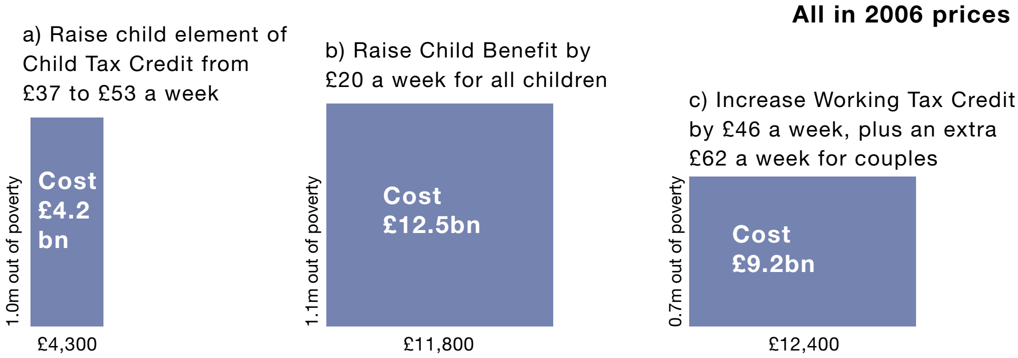
Over the long term, a variety of policies that improve employment as well as pay prospects for parents, together with a gradual improvement in the generosity of tax credits and benefits, could continue to make inroads into child poverty. However, in order to get back on track to meet the 2010 targets, more immediate and drastic measures would be needed, transferring more resources to families with low incomes. Figure 11 shows the cost-effectiveness of three alternative policies seeking to reduce poverty to below half its 1998/99 level by the end of this decade.

Figure 11 Projected fall in child poverty 2004-10

(i) with individual policies



The cost-effectiveness of these three policies for reducing child poverty by 2010



Width of bars shows cost per child taken out of poverty

The most cost-effective single mechanism to reduce child poverty is raising the child element of the Child Tax Credit, which is targeted at low-income families both inside and outside work. This payment is presently £37 a week per child and rising with earnings. Increasing it much faster than earnings – by almost half in real terms by 2010 – would cost £4.2 billion, and would bring child poverty almost to the 13 per cent target. On the other hand, to meet the target using Child Benefit, paid at the same rate to all families regardless of income, would cost three times as much. A third mechanism that would contribute to a decline in poverty is raising the Working Tax Credit. If this went up steeply for all parents, and the rate for couples were raised to reflect the greater needs of two adults rather than one[52] (which does not happen today), some progress could be made in bringing poverty down. However, it is expensive to do this using Working Tax Credit on its own, and half of children in poverty – those without working parents – would remain unaffected by this change. In the illustration, therefore, this policy does not succeed in hitting the 2010 target.

Policy packages for 2010

In practice, any one of these policies is likely to seem unbalanced. Putting too much emphasis on one measure can create distortions. For example, the most cost-effective single measure, raising the targeted portion of the Child Tax Credit, could have work incentive implications by bringing many more working families into a means-tested tax credit system with sharp withdrawal rates as income rises. Is it possible instead to find a cost-effective package using several policies?

Figure 12 shows three possible combinations of policies with similar costs, each of which would meet the 2010 target. The cost of each combination of policies is also similar to the lowest-cost single measure discussed above, the rise in the child element of Child Tax Credit. Although they involve rises that are less narrowly means tested than relying on that element alone, a different form of targeting – by size of family – helps to ensure a reasonable amount of the new money finds its way to children in poverty.

One option is to use all three of the above measures ...

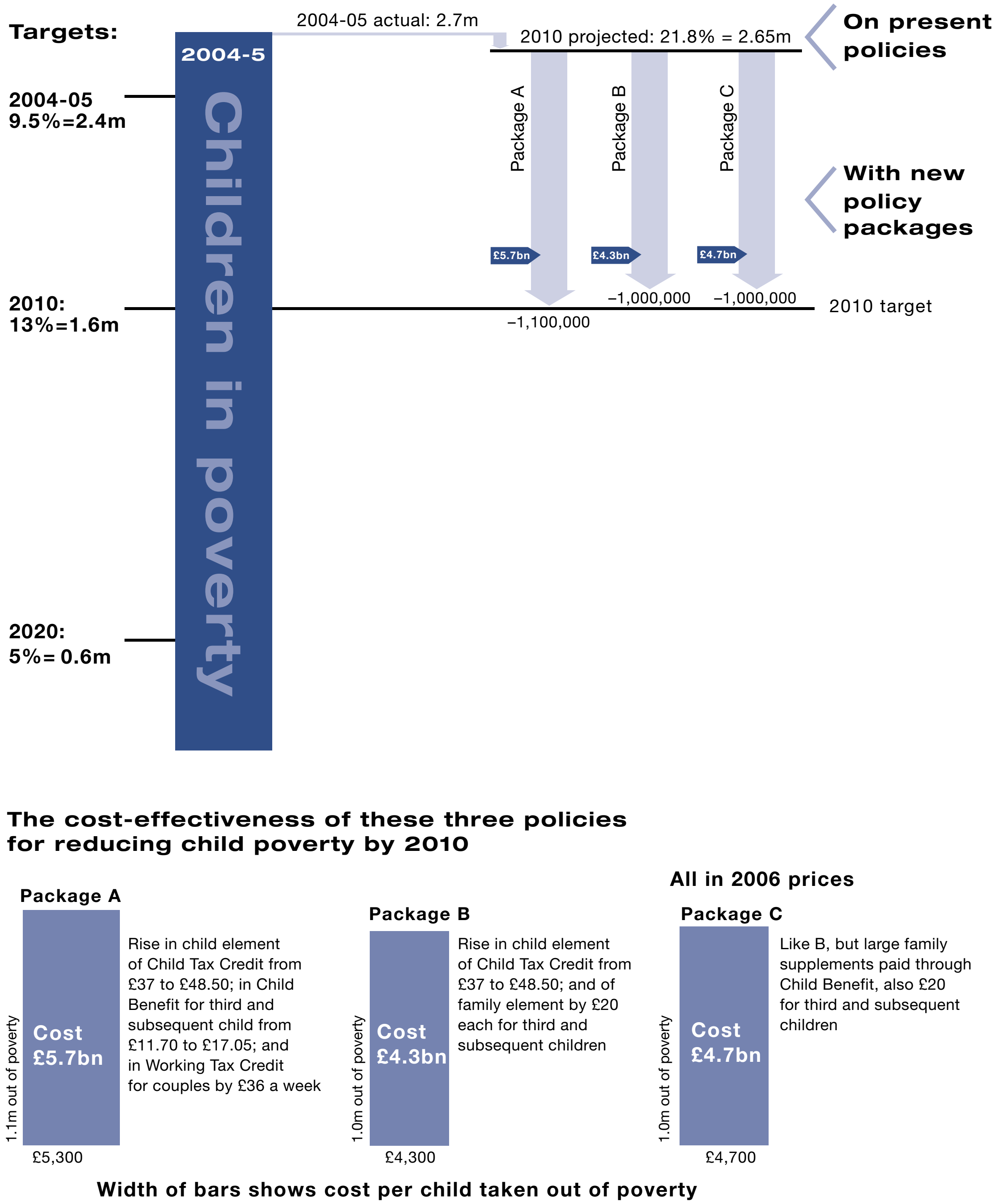
Package A suggests rises in all three of the tax credits/benefits mentioned above. Both the child element of Child Tax Credit and Child Benefit for the third and subsequent children would rise faster than earnings (although not as fast as in the previous, single-policy illustrations), and a one-off increase in Working Tax Credit for couples would give extra resources to provide for a second adult, as discussed previously.

... but extending the 'progressive universalism' of the Child Tax Credit looks promising ...

Package B would involve rises only in the Child Tax Credit, but would use its two elements for two different purposes. The child element would, as in Package A, help low-income families more by rising relative to earnings. But a greater rise would be given to children in large families, by increasing the 'family element' of the credit by £20 a week for the third and for each subsequent child. This element goes to nearly 90 per cent of families with children, so larger families with all but the highest incomes would gain. This would help maintain the principle of 'progressive universalism', which gives a certain level of benefits to people with particular needs regardless of their incomes, but more for the least well-off. The targeting of large families regardless of income as well as poor families in this package has advantages. It reduces work disincentives, and increases the degree

Figure 12 Projected fall in child poverty 2004-10

(ii) with policy packages



to which large families can rely on a certain level of child support that will not fluctuate with their incomes. Moreover, because of the relatively high poverty rates experienced by larger families, it is just as cost-efficient as using the child portion of Child Tax Credit only in lifting children out of poverty.

... although another option would be to focus more on Child Benefit.
Package C is similar to Package B, but uses Child Benefit rather than the Child Tax Credit to give more to larger families. This involves a very large rise in Child Benefit for the third and subsequent children: it would rise from £11.70 now to £35.74 in 2010, rather than to £13.05 if it only rose in line with prices. Although this is not much more expensive than Package B, it seems unlikely that such a large increase would appear just, especially since it would go to all families with large numbers of children, including richer ones. However, this option illustrates how at least some of the task of reducing poverty could be achieved by raising Child Benefit for larger families, without adding substantially to the cost of poverty reduction.

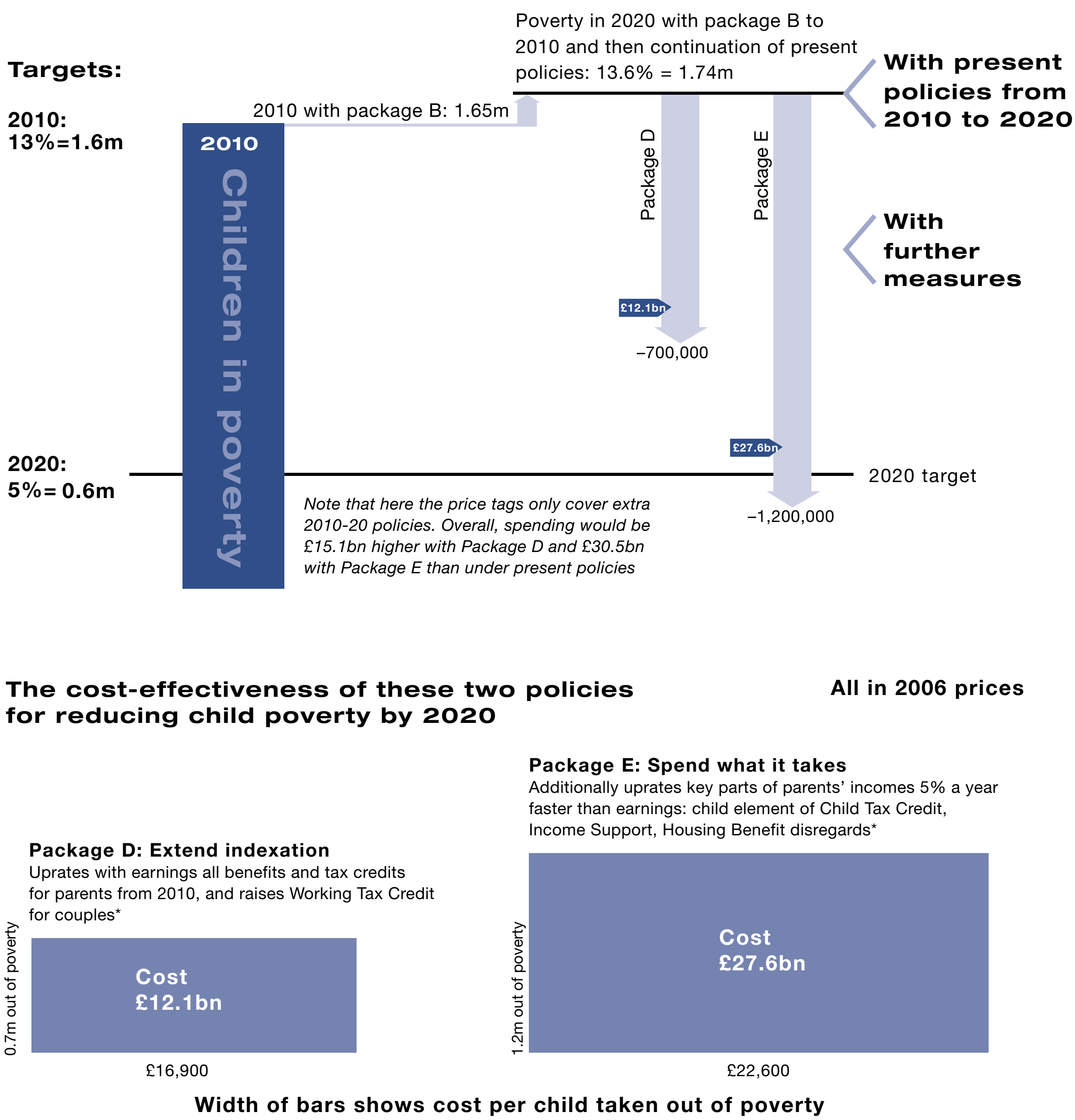
These 2010 options are expensive but affordable.
The extra cost of these strategies for halving poverty by 2010, around £4 to £5 billion in today's money, is considerable but not unaffordable, if the country puts a priority on keeping this historic mission on track. In 2006 prices £4.5 billion is equivalent to about 0.3 per cent of GDP in 2010. The UK economy grows by this amount, in real terms, every month and a half. Moreover, this extra £4 to £5 billion is relative to current policy, which is based on only uprating most benefits and tax credits with prices, and therefore on redistributing a declining share of a growing national cake to people on low incomes. Hitting the poverty target in 2010 would cost about £1.7 billion more than the cost of uprating all benefits and tax credits for parents in line with earnings growth. It therefore only represents a very small increase in the share of national income devoted to supporting the income of families with children.

Policy packages for 2020

Between 2010 and 2020, progress will require even more vigorous efforts ...
Achieving the target of taking all or nearly all remaining children out of poverty by 2020 will be a much harder task. The modelling work found that simply increasing benefits and tax credits brings diminishing returns in reducing poverty as it falls further, to the extent that by the time child poverty approaches 5 per cent, it costs tens or even hundreds of thousands of pounds in extra spending to take each extra child out of poverty. This is partly because tax credits fail to reach some families, who do not claim them. If take-up rates rise, on the other hand, it is possible to increase tax credits and benefits to the point where child poverty falls below 5 per cent, at a high but not absurd cost. Therefore, in suggesting packages for 2010-20, the modelling has assumed that the government adopts measures to improve take-up, and succeeds in reducing non-take-up of tax credits by half during this period.

Two packages for reducing poverty between 2010 and 2020 are illustrated in Figure 13. These packages assume as a starting point that Package B, the lowest cost option for reaching the 2010 target, has been implemented, and then existing policies are carried forward for the next decade. This would include earnings uprating not just for the income-targeted child element of Child Tax Credit as now, but also for the new supplement

Figure 13: Projected fall in child poverty 2010–20



** Both of these packages also assume that the government makes extra efforts to improve tax credit take-up, and by 2020 succeeds in halving the present rate of non-take-up. Without this assumption, spending on tax and benefits yield sharply diminishing returns, and it is virtually impossible to reach the target poverty level.*

targeted at large families. However, simply continuing these policies would not only fail to achieve any further reductions in child poverty but would lead to a small rise – by about 90,000, to 1,740,000 children. As at present, keeping part of children's income in line with earnings is not enough to stem a rise in relative poverty if other parts are falling behind. This effect would be all the more important once poverty had been halved by 2010, as this would bring some non-working families just above the poverty line, increasing the number who might fall below it if the relative value of Income Support continues to fall. (It also demonstrates how 'lifting a child out of poverty' is not a permanent achievement, and if they remain close to the poverty line, they remain vulnerable over time.) Another reason why progress is difficult after 2010 is that credible assumptions about employment entail a slowing down in the reduction in worklessness, given that such a large proportion of the remaining workless households are either disabled or are lone parents with young children (see Chapter 3).

… and would require benefits to be uprated at least as fast as earnings …

Against this background, it would be ineffective to rely only on tax credits and benefits specifically directed at the needs of children to reduce child poverty to the 2020 level. For example, even if Child Tax Credit were *doubled* relative to earnings, at a cost of £20 billion, child poverty in 2020 would still be nearly 9 per cent, compared to the 5 per cent target. Some progress is also needed in maintaining or raising the relative value of the rest of parents' incomes. A mixed package involving the uprating of all the main benefits and tax credits going to families with children, at least in line with earnings would provide a more balanced and (relatively) more cost-effective means of reducing poverty.

… with much greater rises needed to get close to the 2020 target …

A first step in the right direction (Package D) could be taken by increasing in line with earnings all tax credits and benefits for families with children, as well as uprating Working Tax Credit for couples as discussed above. This would get child poverty down to 8.4 per cent – lower than at any time in Britain since relevant data became available in 1960. But to get below the 5 per cent target would also require key benefits and tax credits to rise much faster than earnings, an extremely costly policy, illustrated in Package E. (If there were full tax credit take-up, rather than a halving of non-take-up as assumed here, child poverty under this package would fall below 3 per cent.) The marginal cost of getting each of these last 500,000 children out of poverty[53] would be nearly twice as high as for the previous 700,000, which in turn costs nearly four times as much per child as for the previous million, taken out before 2010.

Note that the final option would involve roughly a doubling in real terms of the relevant benefits and tax credits between 2010 and 2020. This would make payments to poor families with children look very generous indeed, especially in contrast to benefits for those without children that had been going up only with inflation. For example, a single woman on Jobseeker's Allowance would receive £55 a week, but if she had a baby and became a lone parent, her income would rise to nearly £200 (not including the temporary baby premium) in 2006 prices.

… and although we can afford the cost if we want to …

Even the very high costs of these measures need to be put in perspective. Package D would require us to spend 0.7 per cent more of our GDP in 2020 on tackling poverty than without this package, and Package E would require us to spend 1.6 per cent more. In the whole 14-year period between now and 2020, this would increase spending by 1.8 per cent of GDP compared to current policies extended over that period. The bill is in fact 1.9 per cent of GDP higher than spending under current commitments, which only promise to continue uprating the child element of Child Tax Credit with earnings during the current Parliament. Spending this extra 1.9 per cent of GDP would make the difference between reducing child poverty to under 5 per cent and seeing it start to rise again.

These extra costs would have to be incurred by an economy that tends to grow by about 2.5 per cent a year in real terms. So solving the problem primarily through fiscal means would pre-empt less than one year's worth of the economic growth expected over the next 14 years. This would, it is true, require an increase in the proportion of income raised in taxation. However, one aspect of current budgetary practice, as opposed to Treasury budget projections, would yield most of the cost of these measures through higher taxes. Uprating tax allowances only with prices rather than earnings gradually increases the proportion of income raised in tax, yet the long-term Treasury forecasts assume that they will be indexed to earnings. For this reason, if current budgetary practice is followed, tax revenues will by 2020 be £23 billion more (in 2006 prices) than is currently assumed.

... a more plausible scenario combines redistribution with improved market incomes.

Nevertheless, the escalating marginal cost of getting children out of poverty through tax and benefit policy in the 2010-20 scenarios is an important signal of the need for a multifaceted strategy that benefits from but does not rely solely on these measures. A key long-term requirement is to increase substantially the amount that parents earn from work. This would have the double advantage of lifting more families out of poverty with the help of market incomes and reducing the cost of the tax credit system and so releasing resources to raise benefits for those remaining out of work. It is interesting to note that even as the poverty rate falls below 10 per cent in the model discussed here, a third of poor children still live in single-earner couples. Helping such families to do better in the labour market is an important part of the overall equation.

In considering the above models, some account must be taken of work incentives ...

To interpret the above modelling results, some further considerations need to be taken into account. The first is that the projected movements in benefits and tax credits could have some consequences on work incentives and hence on behaviour, with potential knock-on effects. In most cases the results above do not take account of such behavioural changes, although for the 2010 policy illustration of raising the Working Tax Credit, a positive effect on employment has been assumed. However, the effect of raising the Child Tax Credit by the large amounts suggested in the packages would be to give means-tested tax credits to more families, and these families would face high marginal withdrawal rates as their income rose. This could in particular deter couples from having second earners, and the estimated effect would be to reduce by 90,000 the number of couples where a second person works. This would not have a drastic feedback effect on poverty (many of those affected would have been taken out of poverty by the higher tax credits), although it could deter a number of families from improving their living standards further.

... and of the sensitivity of the model to various uncertainties.

A further consideration in interpreting the model is the extent to which its results would be different if some of the assumptions built into it turned out to be wrong. Higher rents and council taxes would reduce relative poverty, since people receiving benefit support to help pay for these items are better protected from the effects than the median household against which their incomes are being compared. Similarly, if real earnings grow more slowly, relative poverty tends to fall since many benefits rise at a given rate regardless of what happens to earnings. A failure of the demographic changes forecast by the model to materialise might cause poverty to be higher than expected. While all these variations would have an effect, the impact is not dramatic. Within plausible variations, the effect of any one factor is generally less than one percentage point in the poverty rate under policy scenarios to 2020. Thus, the model gives a good general idea of the impact of the policies under review.