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## Broadening the VAT Base

Value added tax (VAT) is an important and, on the whole, well-designed tax. But in the UK, zero rates are applied to an unusually wide range of goods and services. There may be convincing arguments to justify a few of these departures from uniformity, but not most. For the reasons we have set out in Chapters 7 and 8, we favour a broadening of the VAT base in the UK, applying the standard rate to a wider range of goods.

This is not simply a preference for textbook tidiness. Moving towards a more uniform rate would increase consumers' welfare by distorting their spending decisions less. People would make choices based on relative prices that reflect the underlying costs of producing the goods rather than differences in tax rates. Our calculations suggest that if almost all zero and reduced rates of VAT in the UK were removed, the government could (in principle) compensate every household to leave them as well off as they were before and still have about £3 billion of revenue left over.<sup>1</sup>

Removing zero and reduced rates in isolation would raise considerable revenue and would inflict proportionately larger losses on low-income families than high-income ones. The challenge is to design a reform package that would spend the proceeds on direct tax cuts and benefit increases in a

<sup>1</sup> Authors' calculations, assuming a 17.5% standard rate of VAT. The welfare gain would rise with the new standard rate of 20%. The estimation assumes that uniformity would be optimal, in the sense that it ignores the point made in Chapter 6 that it may be efficient to tax time-saving goods more lightly and goods that require lots of leisure time more heavily in order to reduce overall disincentives to work; taking this into account could either increase or reduce the estimated welfare gain from base-broadening.

way that is both broadly distributionally neutral and, importantly, would avoid worsening work incentives. In this chapter, we show how this challenge can be met. Note that even in the absence of a net financial giveaway, households should feel significantly better off as a result because the basket of goods and services they could buy after the reform would be worth more to them than the one they could buy before the reform.

We also look at a second potential reform which would use the proceeds of base-broadening to raise net revenue for the Exchequer and to redistribute more resources from better-off households to less-well-off households. But this has much less to recommend it since it would deal a double blow to work incentives, unwinding some or all of the welfare gains generated by the more uniform VAT rate. This is a point that has been missed in much previous literature. Designing a reform that avoids these work incentive effects and that does in fact increase welfare is not straightforward.

Note that we are not suggesting—nor are we modelling here—a completely uniform system of indirect taxation. As we have seen in Chapter 6, there are good reasons for taxing the consumption of alcohol, tobacco, and petrol more heavily than the consumption of other goods, and here we assume no changes to the structure of the excise duties applied to them. We also maintain the current tax-advantaged treatment of childcare, because to do so helps offset the disincentives to work created by other taxes. For the purposes of this chapter, we are also assuming no change to the treatment of the various VAT-exempt goods and services, most notably financial services, which were discussed in the previous chapter.<sup>2</sup> Housing is addressed separately in Chapter 16.

### 9.1. SPENDING THE PROCEEDS ON DIRECT TAX CUTS AND BENEFIT INCREASES

The central component of both reform packages we look at is a broadening of the VAT base such that goods and services now subject to zero and

<sup>2</sup> In part reflecting the complexity of both modelling and introducing such changes, and in part reflecting the fact that many exempt goods have ‘administered’ prices.

reduced rates of VAT—principally food, passenger transport, books and other reading matter, prescription drugs, children’s clothing, and domestic fuel and power—would be taxed at the standard rate after the reform. Our calculations in this volume assume the standard rate of 17.5% which applied for nearly 20 years until January 2011. (The arguments for more uniformity are only reinforced by the introduction of the 20% rate.) If people continued to buy the same goods and services, they would pay an additional £24 billion in VAT<sup>3</sup> and the aggregate price level would increase by a one-off 3.4%.<sup>4</sup>

In our first reform, we look at the consequences of spending that £24 billion on a range of direct tax cuts and benefit increases, so as to create a package that has minimal effects on work incentives and is broadly distributionally neutral in the sense that the gains and losses for households with different levels of incomes and spending would, on average, be relatively modest. Specifically, we model the following changes to the tax and benefit system in place at the end of 2009–10:

- an increase of 3.4% in all tax allowances and thresholds and in rates of all benefits and tax credits (this would happen automatically following the changes to VAT, as allowances, thresholds, and rates are indexed to inflation);
- further increases of 3.4% in the main means-tested benefits (but not tax credits), 2% in the Basic State Pension, and 10% in Child Benefit (making total increases of 6.9% (because of rounding), 5.4%, and 13.4% respectively);
- a £1,000 increase in income tax allowances, which would take 1½ million people out of income tax;
- a £4,530 cut in the basic-rate limit for income tax and the upper earnings limit for National Insurance contributions (leaving them £2,000 below their current nominal level, given the other changes above);
- a 2p cut in the basic rate, and a 1½p cut in the higher rate, of income tax.

<sup>3</sup> Source: HM Revenue and Customs statistics.

<sup>4</sup> Source: Authors’ calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on updated data from the 2007 Expenditure and Food Survey.

Spending the proceeds in this way offsets the regressive impact of broadening the VAT base, while avoiding harm to work incentives. On its own, broadening the VAT base weakens work incentives, as it reduces the amount that can be bought with the proceeds of working, in much the same way as would an increase in income tax rates.<sup>5</sup> Redistributing the revenue in a way that left the package more progressive in its overall impact—by increasing means-tested benefits, for example—would tend to exacerbate this weakening of work incentives (see Section 9.2). The reform package described above seeks to alleviate this in particular through the increases in tax allowances and reductions in tax rates.

Assessing the distributional implications of a move from direct to indirect taxation of this sort is not straightforward. On average, in any given year, this reform package leaves people with low spending better off and those with high spending worse off—which looks progressive. But at the same time, on average, it leaves people with low incomes worse off and those with high incomes better off in any given year—which looks regressive.

It is in the nature of indirect taxes that they bear heavily on those with high expenditures. And while there is a correlation between expenditure and income levels, it is not by any means perfect. In any shift from direct to indirect taxation, people who spend a lot relative to their income in any given year will lose and people who spend little relative to their income will gain. The important point is that, for many people, the amount they spend in a particular year is probably a better indicator of their lifetime living standard than the level of their income in that year. While some people are persistently poor, many have volatile earnings, are temporarily unemployed, are studying, are taking a break from the labour market to raise children, or are retired but with access to significant savings. In these circumstances, their spending may be high relative to their current income because they are borrowing in the expectation of income being higher in the future (such as students) or they are drawing down savings accumulated from past earnings (such as pensioners).

<sup>5</sup> There is also an income effect from a simple increase in VAT, but of course our compensation package offsets that effect fully.

Of course, over a lifetime, a person's income and spending must be equal (bequests, dying in debt, and inheritances aside).<sup>6</sup> One cannot have spending greater than income forever. Those who are losers in the current year, because they are spending a lot relative to their income, will often experience corresponding gains in future years when their income is high relative to their spending. They may well be able to adjust their saving patterns to smooth this out themselves.

It is particularly notable that right at the bottom of the income distribution, income looks like a rather poor measure of welfare. Many households in the bottom tenth of the income distribution have spending patterns (and other characteristics) that are more similar to those of households near the middle of the distribution than to those of other low-income households.<sup>7</sup> Of course, there are still people with low incomes and relatively high spending who are genuinely poor: those who are in danger of getting into unmanageable debt and those who have no future prospect of increased incomes, for example.

Given this disparity between income and expenditure in any given year, our first reform is designed to ensure that, particularly for low-income groups, their percentage rise in income from the compensation measures would at least match their percentage rise in expenditure as a result of the VAT increase. This is a natural way of thinking about the problem and is a similar principle to that embodied in the standard indexation of benefits: benefits are increased in line with economy-wide inflation to maintain their purchasing power. If the cost of living increases by 5%, then benefit income is increased by 5%. Benefit recipients enjoy the same percentage increase in their benefits as in their cost of living, even though the cash increase in income would not cover the cash increase in their costs if their spending were higher than their income. In fact, what we do matches household circumstances much better than standard RPI indexation of benefits. In the

<sup>6</sup> In our discussion of the taxation of wealth in Chapter 15, we argue for maintaining a tax on wealth transfers, albeit on a fairer basis than under the current inheritance tax.

<sup>7</sup> Studies that have examined the use of expenditure rather than income for looking at distributional outcomes include Goodman, Johnson, and Webb (1997), Blundell and Preston (1998), Meyer and Sullivan (2003 and 2004), Goodman and Oldfield (2004), Brewer, Goodman, and Leicester (2006), and Brewer et al. (2009).

first place, it directly relates average percentage increases in incomes for each part of the income distribution to that group's actual price increase, as opposed to the population average; and second, we seek to increase the whole of income in line with the relevant price increase, not just benefit income.

Where the compensation package does not cover the increase in spending, adjustments to saving and borrowing could help to smooth out the change. There are two important groups for whom this may not be true, however. First, those who are credit constrained may not be able to borrow more to pay for their higher immediate costs, unless the expectation that their future income will be taxed less makes it easier for them to obtain credit. Second, as a transitional issue, those who have already gone through their period of high income and low spending, and are now in a period of low income and high spending, may see a rise in their costs but have no expectation of an increased income in future.

Shifting from income taxes to consumption taxes in effect imposes a windfall tax on 'old capital': the purchasing power of people's existing assets is reduced. This is highly efficient—since the assets already exist, the revenue they provide does not involve discouraging any new activity—but it might reasonably be seen as unfair on those who lose out. Such windfall losses (or gains) for old capital are an issue we have to confront many times in tax reform. In this case, those over pension age are the obvious group who might be in this position, although in fact our modelled reform is designed so as to not leave pensioners worse off on average.

This discussion of how to think about the difference between spending and income as measures of welfare is rather important in understanding the impact of our proposed reforms. Our presentation in Figures 9.1 and 9.2 reflects the discussion.

Figure 9.1 sorts the population by income decile from the lowest-income tenth to the highest-income tenth. The bars, measured against the left-hand axis, show the percentage rise in spending as a result of the VAT rise (left side, light shaded bar) and the percentage rise in income as a result of the compensation package (right side, dark shaded bar). The line, measured against the right-hand axis, shows the pounds-per-week cash gain or loss as a result of the reform.

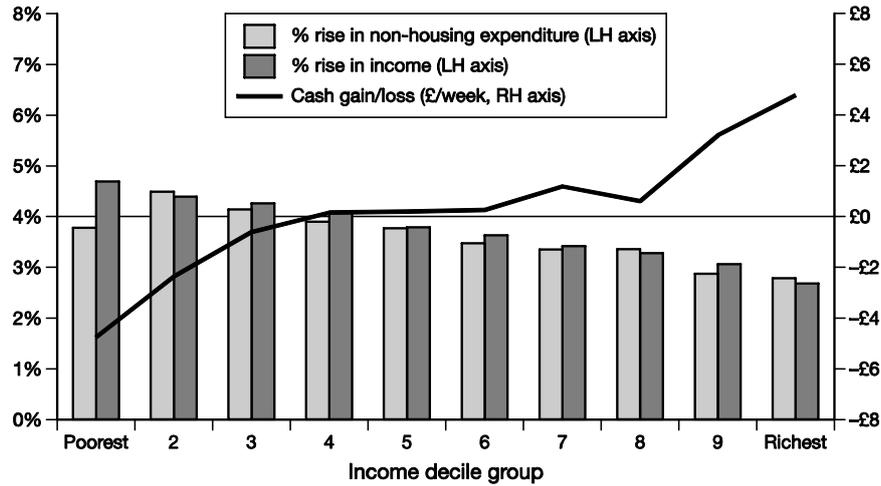


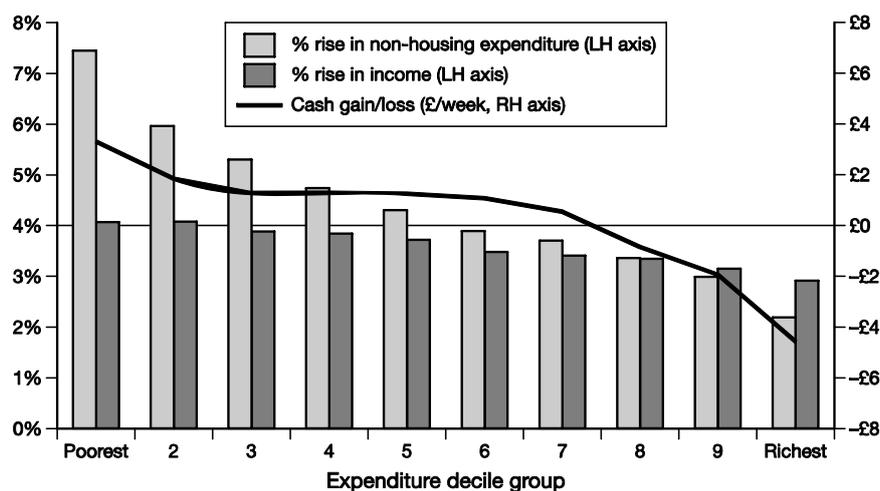
Figure 9.1. Effect of reform by income decile

Note: Income decile groups derived by dividing households into ten equal-sized groups according to their disposable income adjusted for household size using the McClements equivalence scale.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on updated data from the 2007 Expenditure and Food Survey.

Looking at this line first, we see the familiar effect of an indirect tax rise. Even with compensation, the two lowest income deciles make significant cash losses, whilst the highest income deciles make cash gains. The reform looks decidedly regressive. But the bars tell a somewhat different story. For each decile group, the percentage rises in income and spending are much the same, except in the bottom decile where income rises rather more than spending. So, on our test as to whether income rises as much as spending in percentage terms, the reform looks very slightly progressive.

Note in passing that the lowest income decile sees a smaller percentage rise in spending than the second, third, or fourth deciles. This must be because people in this group devote a smaller proportion of their budget to zero- and reduced-rated goods than those in the deciles immediately above them. Arguably, this is further evidence that they do not, on average, have the lowest living standards, since one would usually expect those with the lowest living standards to spend the largest proportion of their budgets on 'necessities', which tend to be subject to zero or reduced rates.



**Figure 9.2.** Effect of reform by expenditure decile

Note: Expenditure decile groups derived by dividing households into ten equal-sized groups according to their non-housing expenditure adjusted for household size using the McClements equivalence scale.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on updated data from the 2007 Expenditure and Food Survey.

Now consider Figure 9.2, in which the population is ranked not by income but by spending level. Here, the group on the far left is the group with the lowest spending and that on the far right is the group with the highest spending. The pattern is completely different from that in Figure 9.1. This time, it is the lowest decile that enjoys the greatest cash gain and the highest decile that sees cash losses. On the other hand, spending in the lowest decile rises by a much bigger percentage than does income. (This reflects the fact that people in this expenditure group have low spending relative to their income and do not benefit as much from the benefit increases aimed at those on low incomes.) So, while this group becomes better off in cash terms, it appears to become worse off in the sense that its cost of living is rising faster than its income.

Though complicated, it seems to us that this pattern could be described as broadly distributionally neutral on average if we consider income and spending together as a guide to lifetime resources. It is also broadly neutral between different types of household. There is no significant redistribution between the main demographic groups—so, for example, neither lone parents nor pensioners gain or lose significantly on average—and the

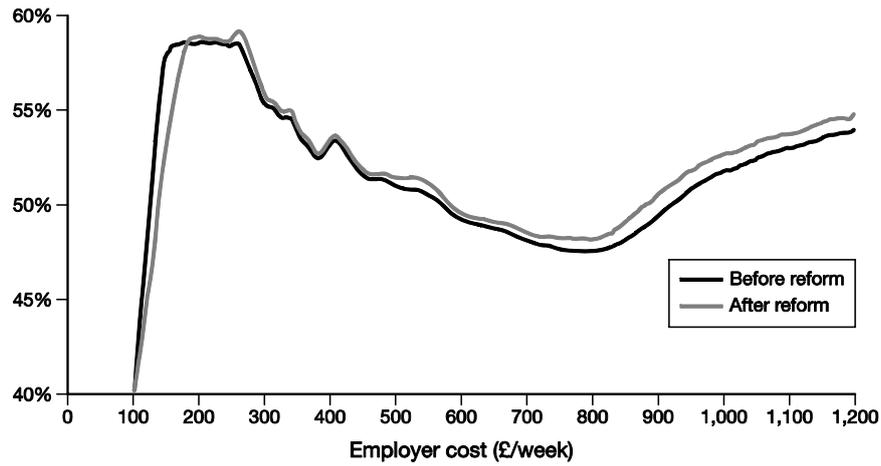
distributional patterns *within* each demographic group roughly match those shown in Figures 9.1 and 9.2.

Whatever its average impact may be on different income bands, spending bands, and family types, when we disaggregate them this reform has large effects on individual households in any given year. Indeed, barely one in ten households are broadly unaffected (with a cash gain or loss of less than £1 a week), while around half of households gain or lose more than £5 per week. There are more winners than losers in every demographic category, but there are nevertheless almost 10 million households losing more than £1 per week, of which nearly 6 million are losing more than £5 a week. The political difficulties of such a reform are obvious.

Some of these gains and losses arise, no doubt, because our compensation package is imperfectly designed. However, the two principal reasons for such large, widespread gains and losses are more fundamental:

- First, households that are currently spending a lot relative to their incomes are likely to lose out, and vice versa. But, as we have noted, this state of affairs cannot be permanent: such households must spend less relative to their incomes at other times, so to a large extent the distributional effects over a lifetime will balance out. This element of the gains and losses is in part an artefact of taking a snapshot view of the population.
- Second, at any given level of overall income and expenditure, some households will buy more zero- and reduced-rated goods than others. Those with a strong taste for such goods will lose out (over a lifetime, not just in a single year), while those who prefer standard-rated goods will gain. In one sense, imposing these gains and losses is the purpose of the reform. Why should the tax system favour people who like reading magazines more than listening to music, or who buy their children more expensive clothes and less expensive toys than others? Unless the government wishes to defend such preferential treatment *given overall levels of income and expenditure*, the gains and losses implied by removing these inequities should be positively welcomed.

While a degree of distributional neutrality was one aim of the compensation package, avoiding damage to work incentives was another.



**Figure 9.3.** Effective marginal tax rate before and after reform

Notes: Kernel regression (lowess) estimates. Employer cost = Gross earnings + Employer NICs.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2007 Expenditure and Food Survey.



**Figure 9.4.** Participation tax rate before and after reform

Notes: Kernel regression (lowess) estimates. Employer cost = Gross earnings + Employer NICs.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on uprated data from the 2007 Expenditure and Food Survey.

Figures 9.3 and 9.4 show how the reform has minimal effects on work incentives.<sup>8</sup> Figure 9.3 shows that effective marginal tax rates (EMTRs) for workers change little, on average, at any level of employer cost (that is, gross earnings plus employer National Insurance contributions), with only slight rises for the highest earners and slight falls for the lowest. Figure 9.4 shows that pre- and post-reform participation tax rates (PTRs, which measure the incentive to enter paid work) would be even more closely aligned. On average, the PTR rises by only half a percentage point and the EMTR by less than a quarter of a percentage point.

In fact, this reform package closely replicates the existing pattern of work incentives by earnings not only overall but for each type of worker (single people and one-earner and two-earner couples, with and without children).

Having spent the entire proceeds of broadening the VAT base on measures to compensate poorer households for the increase in living costs they would suffer and to avoid weakening work incentives, it is important to remind ourselves what the point of the exercise was in the first place. Even though the government would not be offering a net financial giveaway, people should feel an improvement in their material well-being because the basket of goods and services they could buy after the reform would be worth more to them than the basket they could buy before the reform. This is because the government is no longer spending its money encouraging them to buy more of some goods and services than they actually want.

## 9.2. RAISING REVENUE AND REDISTRIBUTING MORE

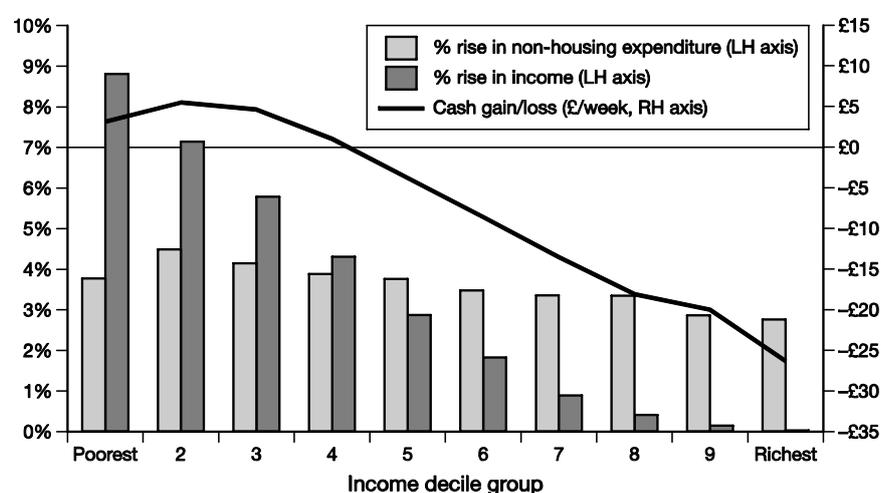
If a government wished to raise additional revenue, and did not believe that the sort of reform described in Section 9.1 would give it the ‘political permission’ to do so by generating an offsetting welfare gain, then it could design the reform package explicitly to raise net revenue. It could also design the package explicitly to be more redistributive.

<sup>8</sup> The measures of work incentives used here are defined and discussed in Chapters 3 and 4.

One way to do so would simply be to accompany the VAT-base-broadening with a 15% increase in all the main means-tested benefits and tax credits.<sup>9</sup> This costs only about £13 billion, whereas the base-broadening raises £24 billion, so the reform package in total raises net revenue of £10 billion (after rounding), or just under £400 per household per year.

Not surprisingly, a revenue-raising reform creates more losers. Whereas in our previous reform there were more winners than losers, now only a third of households gain, 2% are unaffected within £1 per week, and almost two-thirds lose. Almost three-fifths of households lose more than £5 per week (15 million compared with 6 million in Section 9.1).

The pattern of gains and losses across the income and expenditure deciles would also be dramatically different, as illustrated in Figures 9.5 and 9.6, which are comparable to Figures 9.1 and 9.2. This second reform is much more redistributive—offering cash gains on average to the bottom three income deciles and substantial cash losses to the top deciles.



**Figure 9.5.** Effect of alternative reform package by income decile

Note: Income decile groups derived by dividing households into ten equal-sized groups according to their disposable income adjusted for household size using the McClements equivalence scale.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on updated data from the 2007 Expenditure and Food Survey.

<sup>9</sup> This is the package illustrated in Crawford, Keen, and Smith (2010).

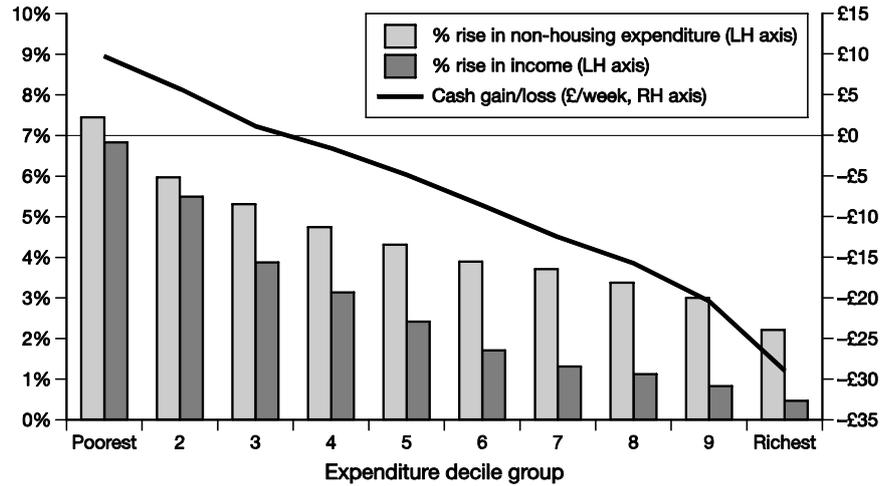


Figure 9.6. Effect of alternative reform package by expenditure decile

Note: Expenditure decile groups derived by dividing households into ten equal-sized groups according to their non-housing expenditure adjusted for household size using the McClements equivalence scale.

Source: Authors' calculations using the IFS tax and benefit microsimulation model, TAXBEN, run on updated data from the 2007 Expenditure and Food Survey.

So we have a reform that, like our first package, involves a broadening of the VAT base. Unlike our first reform, it raises money from the better-off while redistributing to the least-well-off and adds £10 billion to the government's coffers. But the price of doing so is a double hit to work incentives, because the weakening of incentives implied by the VAT extension itself is exacerbated by the weakening of incentives created by a major increase in the generosity of means-tested benefits. Therefore we cannot claim an overall efficiency gain.

On average, effective marginal tax rates rise by 2.8 percentage points and participation tax rates rise by 3.3 percentage points as a result of this reform, with the biggest increases being for low earners. To put this in context, our simulations suggest that such a weakening of work incentives could result in total employment levels falling by several hundred thousand.

This illustrates nicely the difficulties in designing effective tax reforms. Broadening the VAT base increases economic efficiency and increases consumers' welfare. And it is easy to target direct tax and benefit reforms that, on average, compensate those on low incomes and that leave behind money for the government. But if not very carefully designed, these reforms

can create a new inefficiency and source of welfare loss—in this case, weakened work incentives. Our first reform showed that it is possible to achieve the degree of redistribution and the strength of work incentives that we currently have and to get rid of the undesirable distortion of consumption choices that our current VAT system imposes. But VAT-base-broadening does not in itself provide an escape from the fundamental trade-offs between work incentives, redistribution, and revenue-raising. Broadening the VAT base can generate an efficiency gain, which, like the other efficiency-enhancing tax reforms described in this volume, allows the government to raise more revenue without reducing overall welfare. However, beyond this efficiency gain, it cannot be used to raise net revenue without either hurting the poor or weakening work incentives (or both).

### 9.3. CONCLUSIONS

There is a strong case for broadening the VAT base and moving towards a uniform rate. This would increase consumers' welfare by distorting their spending choices less. We have illustrated one possible reform package, designed to broaden the base of VAT by moving goods from zero and reduced rates to the standard rate. This would inevitably raise the cost of living, but we can design a set of compensating changes to the direct tax and benefit system so that the overall reform package would avoid worsening work incentives and would be broadly distributionally neutral. This distributional neutrality is achieved by ensuring that gains and losses for households with different levels of incomes and spending would, on average, be relatively modest.

But achieving distributional neutrality in this sense would not avoid creating large numbers of winners and losers at the level of individual households. Some will be affected because they happen to have a preference for the zero- or reduced-rated goods that the government is currently trying to encourage them to buy: our proposal gets rid of an anomaly that currently favours those who prefer these goods and punishes those who prefer goods that attract VAT at the standard rate.

Beyond the fact that a shift to a more uniform system of VAT is both feasible and desirable, two really important conclusions flow from the analysis in this chapter.

First, any reform needs to be very carefully thought out and structured if we are not to lose any efficiency gain from a more uniform VAT to worsened work incentives. We have been very careful to design a package to avoid this happening and have illustrated the dangers of ignoring these considerations.

Second, it is really important to think carefully and clearly about what we mean by progressivity and redistribution. The reform package shifts the structure of the tax system away from direct taxation and towards indirect taxation. This inevitably means that households that have high spending relative to their income in any given year will also lose, and vice versa. That is why the reform leads to different patterns of cash gains and losses when viewed by income decile and by expenditure decile. It is a regressive reform when household welfare is measured by income, but progressive when welfare is measured by expenditure. Of course, over the lifetime of a household, income must equal expenditure (bequests, dying in debt, and inheritances aside). So high spending relative to income cannot be sustained indefinitely. Those households that lose in the current year because they are spending a lot relative to income will often experience corresponding gains in future years when their income is high relative to their spending. They may well be able to adjust their saving patterns to smooth out this fluctuation.

The bottom line is that a carefully designed reform of the current UK VAT system could offer a golden opportunity to unlock a significant improvement in consumer welfare. Unfortunately, any government contemplating such a reform may fear that the electorate will fail to give credit where credit is due, given the intangible nature of the welfare gain, a problem exacerbated by the fact that a significant minority of households would suffer financial losses.