Institute for Fiscal Studies

The changing composition of public spending

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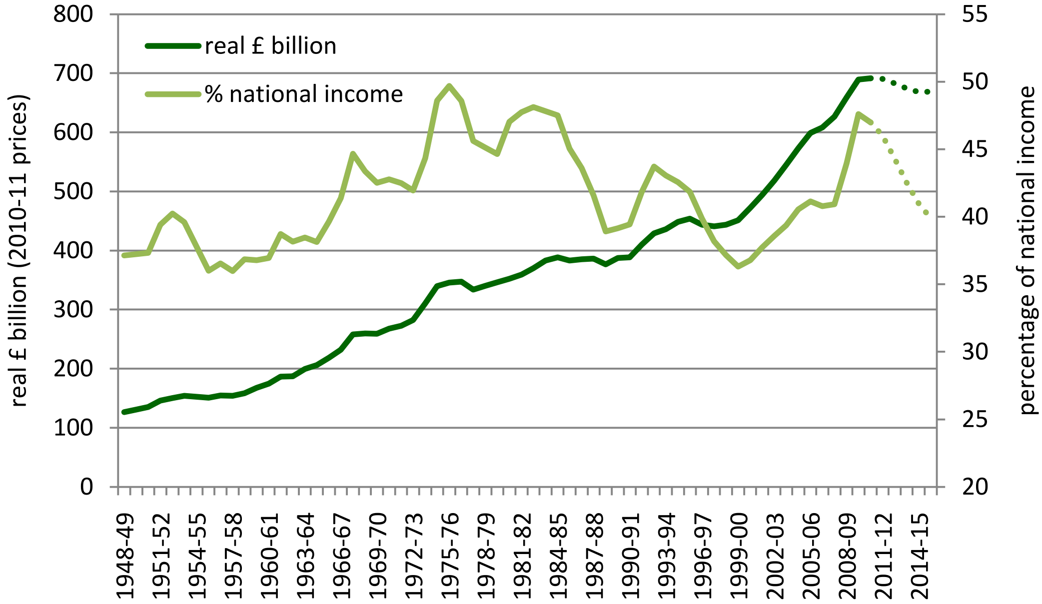
1. Introduction

The total level of public spending peaked at very nearly 50% of national income in 1975–76, fell to a low point of just over 36% by 1999–2000, then rose gradually to 41% of national income in the mid 2000s. It shot up rapidly during the recent recession, reaching 47.6% of national income by 2009–10. It is now set to fall rapidly to 39.9% by 2015–16, assuming this government's planned spending cuts are implemented (and assuming economic growth pans out as forecast).

Figure 1. Total public spending, 1948–49 to 2015–16



Sources: See http://www.ifs.org.uk/ff/lr_spending.xls

This pattern is plotted by the lighter line in figure 1. The movements up and down reflect both real increases in government spending and the pattern of the economy. When national income falls, as it did dramatically in 2008–09, spending as a proportion of national income obviously rises. The darker line plots real terms spending (that is, after adjusting for economy-wide inflation) in billions of pounds. It follows a smoother, ever increasing pattern, and shows that spending hit a high of nearly £700 billion in 2010–11. It is noticeable that the slope of this line also became steeper from the turn of the century as discretionary spending increases kicked in.

As the economy recovers, and the new government's spending cuts bite, total public spending is set to fall and in 2015–16 is forecast to take up much the same proportion of national income as it did in around 2003–04.

But the fact that total spending will take up the same sized slice of the national pie does not mean that it will be used in the same way. What we look at here is not at the level of spending, but at how its composition has changed over time, and how it might change going forward. Two recent publications from government throw light on this issue. The 2011 Public Expenditure Statistical Analyses Command Paper, published in July by the Treasury, shows how spending has changed by function over time, and gives some indication of how it is likely to change through to 2014–15 – the end of the current spending review period. On the same day, the Office for Budget Responsibility (OBR) published its Fiscal Sustainability Report. This showed how demographic pressures might change the composition of spending going forward to 2060–61.

Our analysis is quite revealing. At the time of the OBR publication there was much commentary on the fact that spending on pensions and health look like taking an increasing portion of public spending going forward. What we show here is that that will be no more than a continuation of a long-running trend which has already seen these parts of government spending growing as a share of the total. In 1990–91 health spending accounted for 12.2% of total public spending but by 2010–11 its share had grown to 17.5%. Over the same 20 year period, spending on pensions increased from 10.6% of the total to 12.6%.

The obverse of this, of course, is that other areas of spending must have become relatively less important. Defence is one of the most notable, falling from 9.6% of total spending to 5.7% over the last 20 years. Over a slightly longer time scale the role of the state has changed more substantively; in the late 1970s much more significant amounts of money were spent on housing and support for business than are spent today.

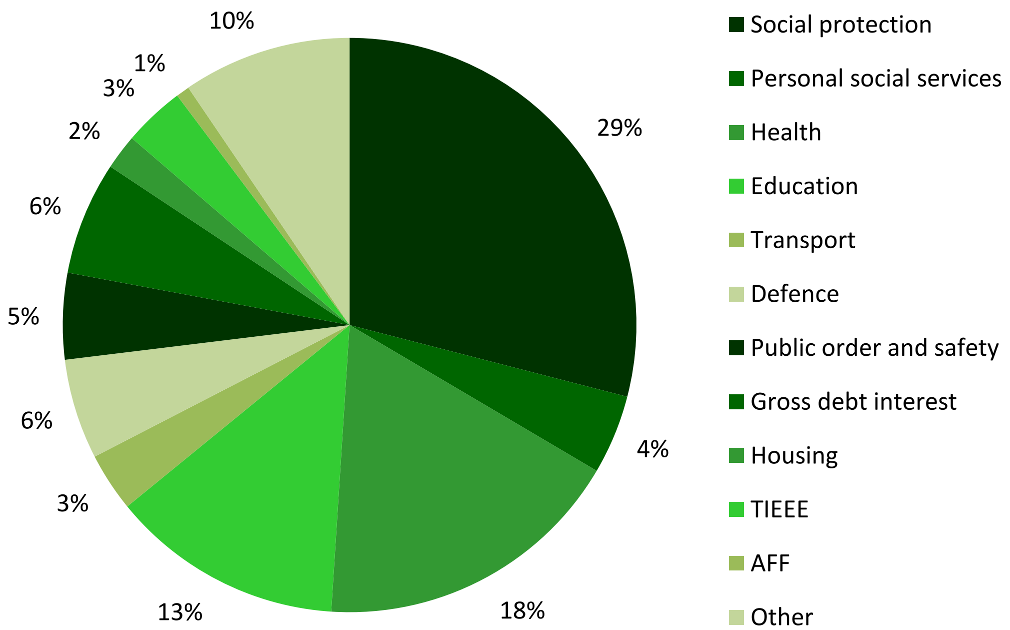
Over the past 30 years or so the role of the state has changed to accommodate increased spending on health, pensions and other areas of social protection. Spending on defence, housing, and direct intervention in the economy to support business, has taken the strain. The question then arises: are there other areas from which the state can withdraw in order to accommodate increased spending on health and pensions going forward? Or will total spending have to rise?

2. What is the current composition of spending?

Figure 2 shows how spending was distributed among the main functions in 2010–11. The spending pie has many slices, but just three – social protection, health and education – take up 60% of the total.

The single biggest component is social protection spending – that is social security benefits including tax credits and state pensions – which accounts for nearly £3 in every £10 spent by the state (or a total of £200 billion). Of this £3, about £1.35 went on pensions. The majority of the remainder is accounted for by housing benefit, disability and incapacity benefits, income support, and tax credits. All these payments are in effect direct transfers from one set of individuals to another.

Figure 2. Composition of total public spending in 2010–11



Notes: TIEEE is spending on trade, industry, energy, employment and the environment. AFF is spending on agriculture, fisheries and forestry. Other includes spending on public and common services, international services, recreation, culture and religion, EU transactions and accounting adjustments.
Source: Table 4.2 of HM Treasury, *Public Expenditure Statistical Analyses 2011*, Cm. 8104, July 2011, http://www.hm-treasury.gov.uk/pespub_pesa11.htm

The second biggest element of spending is health. At around £120 billion in 2010–11 it accounted for 18% of total public spending. The large majority of health spending of course goes on the NHS. After health comes education, accounting for 13% of the total. The majority (over 70%) of education spending is on schools, though spending on each of higher education, further education and pre-school remains important.

Defence, public order and safety, personal social services and transport account for 6%, 5%, 4% and 3% respectively. Housing accounts for a relatively minor 2% of total spending, while spending on trade, industry, energy, employment and the environment all together account for just 3% of total spending.

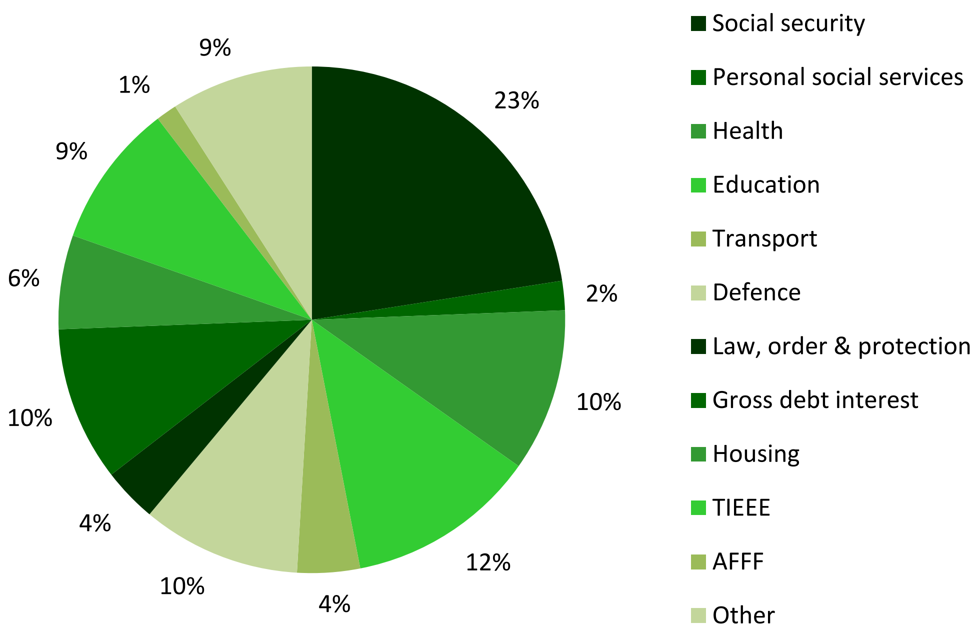
3. Changes in the distribution of spending 1979 – 2015

3.1 Total spending 1978-79 to 2010-11

Figure 3 shows the equivalent pattern for 1978-79. Definitions are slightly different, reflecting changes in definitions and the organisation of government over time. But note that this time social security, health and education account for only 45% of total spending between them. The elements of spending that were much bigger in 1978-79 were housing, defence and what we have called TIEEE, that is spending on trade, industry, energy, employment and the environment. Between them they accounted for a quarter of spending in 1978-79 and just 11% in 2010-11.

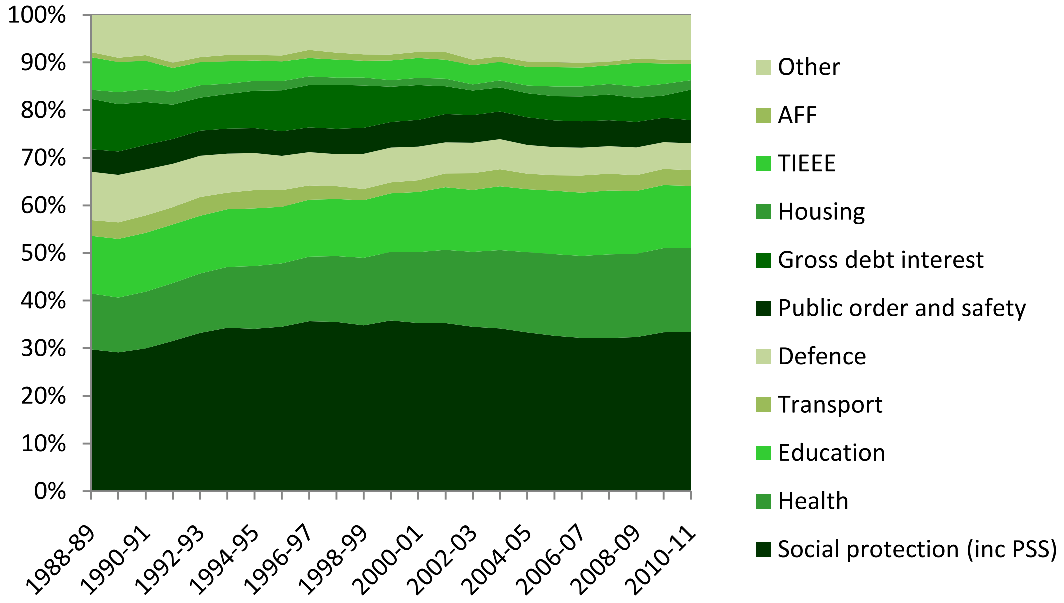
Figure 3 shows the composition of 'general government expenditure' in 1978–79.

Figure 3. Composition of General Government Expenditure in 1978–79



Notes: TIEEE is spending on trade, industry, energy, employment and the environment. AFFF is spending on agriculture, fisheries, food and forestry. Other includes overseas spending (including overseas aid), National Heritage, miscellaneous expenditure and other accounting adjustments.
Source: Table 3.2 of HM Treasury, *Public Expenditure Statistical Analyses 1997–98,* Cm. 3601, March 1997.

Figure 4. Composition of total public spending 1988–89 to 2010–11



% of total spending	1988–89	1998–99	2010–11
Other	7.8	8.3	9.5
AFF	1.0	1.3	0.8
TIEEE	6.9	3.5	3.5
Housing	1.9	1.7	2.0
Gross debt interest	10.6	8.9	6.4
Public order and safety	4.7	5.4	4.9
Defence	10.2	7.4	5.6
Transport	3.3	2.4	3.3
Education	12.1	12.1	13.1
Health	11.7	14.2	17.5
Social protection	29.8	34.8	33.5

Source: Table 4.2 of HM Treasury, *Public Expenditure Statistical Analyses 2011*, Cm. 8104, July 2011, http://www.hm-treasury.gov.uk/pespub_pesa11.htm

Figure 4 shows the composition of total public spending between 1988–89 and 2010–11 (with a table showing the composition in three specific years: 1988–89, 1998–99 and 2010–11). We take the patterns from 1988-89 in this chart in order to ensure complete comparability over time. To put this in the context of the longer period note that the biggest changes between 1978–79 and 1988–89 were an increase in the proportion of spending accounted for by social security (up from 25% in 1978–79 to 29.8% ten years later) and a decline in the proportion accounted for by housing. In 1978–79 housing accounted for 6% of total spending, but by 1988–89 this had fallen to 1.9%. (Some of this is directly offsetting spending: a cut in the direct subsidy for social housing was replaced over this period by increased spending on Housing Benefit. But most of the change reflects sharply reduced investment in social housing).

Spending on benefits continued to grow as a proportion of total spending over the period between 1988–89 and 1998–99. Mostly this reflected continuing increases in the numbers receiving some of the main benefits, especially those in respect of disability and lone parenthood. While the number of pensioners also rose over this period, there were two offsetting effects on the costs of pension payments. The linking of the level of the basic state pension to growth in prices (rather than earnings) from the early 1980s kept an effective lid on the costs of pensions. On the other hand the gradual maturation of the State Earnings Related Pension (which was only introduced in 1978) put some upward pressure on costs. But overwhelmingly the increased cost of social protection over this period came from increased spending on those under state pension age and not in work.

Over these ten years, spending on health also took up an increasing share of the total, rising from 11.7% in 1988–89 to 14.2% in 1998–99. By contrast, spending on defence declined in relative importance, falling from 10.2% of spending to 7.4%, as did spending on supporting industry.

Looking at the period between 1998–99 and 2010–11 there are some similarities with the earlier period and some differences. The big "winner" over the last decade was health, continuing its previous trend of increasing as a share of total spending. In real terms spending on health doubled from £63 billion to £121 billion, an average annual real growth rate of 5.6%. This has, of course, been a largely deliberate policy, and in part this big increase can be seen as time specific. There was an attempt to catch up with the average levels of health spending seen internationally and to tackle what had come to be seen as unacceptable service standards, most obviously manifest in very long waiting times for various operations. In part it also reflected ongoing inflationary and demographic pressures within the health care system.

By contrast, spending on social protection fell as a proportion of the total, despite major increases in the generosity of some benefits – in particular, tax credits for those in work and benefits for low income families with children. The two forces that offset these tendencies towards increased spending were first the more general continued uprating of benefits, including state pensions, in line with prices, and second some quite significant falls in the numbers in receipt of certain out of work benefits, including incapacity benefits and, over this period, lone parent benefits.

Defence spending continued to fall as a share of the total – from 7.4% in 1998–99 to 5.6% in 2010–11.

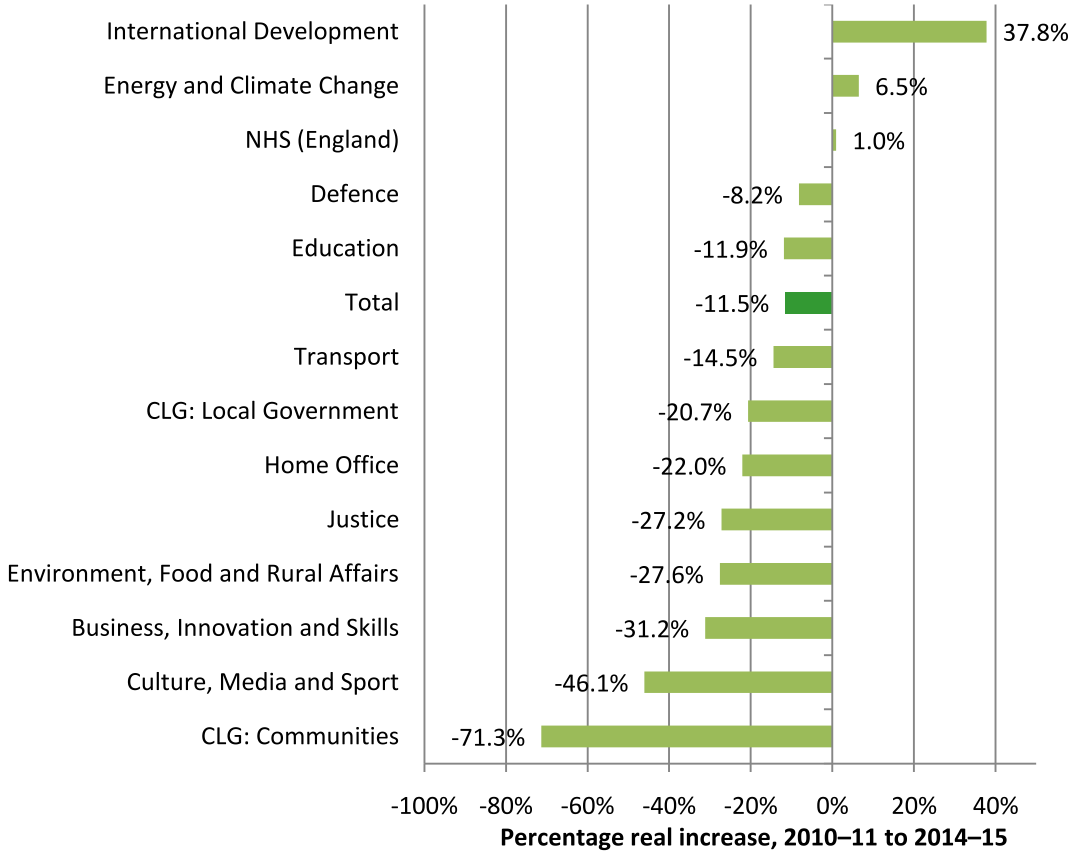
Note that in all of this we have said little about education spending. It has remained remarkably constant over time as a share of total spending. Of course since 2000 or so this is consistent with large real increases in education spending. But note that over time the fact that the share of education spending in total spending has not risen is itself quite striking given that there have been very dramatic increases not only in the numbers in higher education, but also in the numbers staying on in any form of education post 16. Particularly in higher education these greater numbers were absorbed through some dramatic reductions in spending per student since the 1970s, though that has been fairly stable over the past decade or so[1].

3.2 Public service spending to 2014-15

We can also peek into the near future. While outturn data for spending by function stops in 2010–11, we nonetheless know quite a lot about this government's plans for spending on various functions over the spending review period to 2014–15. Figure 5 shows plans by department over the spending review period. (These are plans for public service spending and exclude so called *annually managed expenditure* (AME) of which spending on social security is by far the largest element). Very sharp falls in spending on local government, the Home Office and Ministry of Justice are apparent. Education spending is due to fall, though by a bit less than the average, while health spending is "protected". What is apparent is that, while these cuts are severe overall, they largely follow a familiar pattern. Education spending will continue to move with the average, spending on housing (CLG communities is largely housing), environment and public order will fall and, relatively speaking, health will do well. Note that while significant cuts in future defence spending are envisaged, over this period defence does somewhat better than the average.

[1] More details on education spending can be found at http://www.ifs.org.uk/bns/bn98.pdf

Figure 5. Changes in DEL spending by department between 2010–11 and 2014–15



Notes: Figures show the real-terms percentage change in the department's budget by 2014–15, from its 2010–11 outturn level. The 2010–11 outturn for defence is adjusted to remove £4.6bn allocated from the Special Reserve for operations in Iraq and Afghanistan. Culture, Media and Sport includes the 2012 London Olympics.

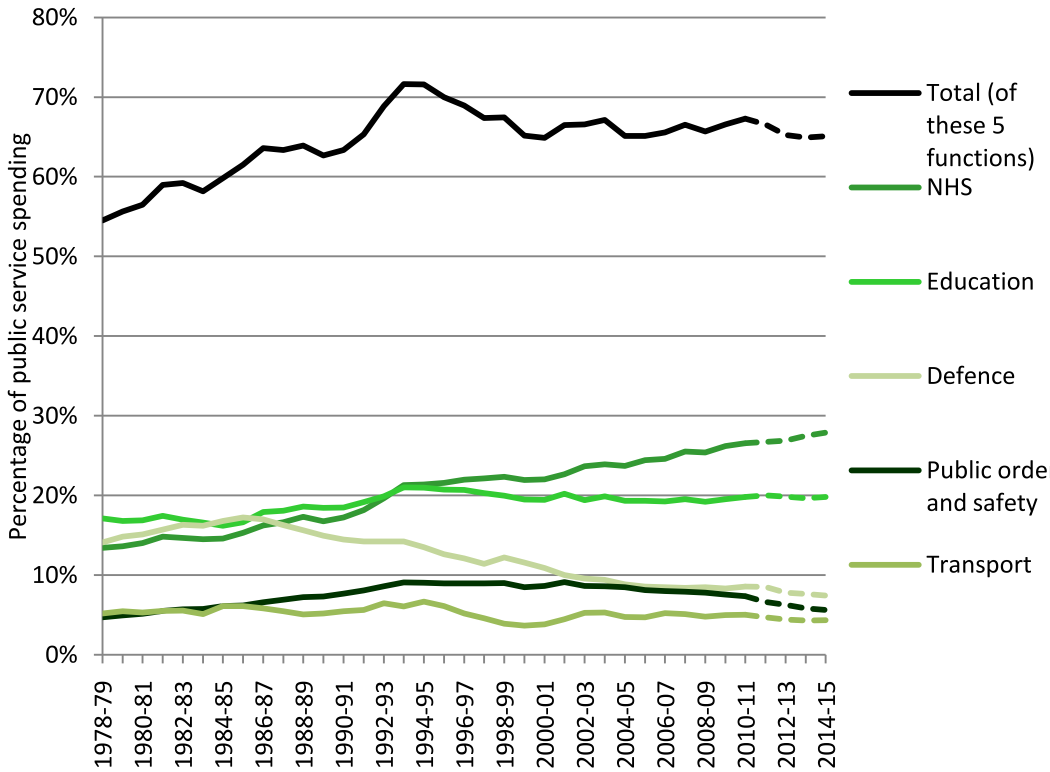
Sources: Authors' calculations using Table 1.9 of HM Treasury, *Public Expenditure Statistical Analyses 2011,* Cm. 8104, July 2011, http://www.hm-treasury.gov.uk/pespub_pesa11.htm

The effects of these plans are illustrated in Figure 6. This shows the composition of just public service spending – that is, spending excluding debt interest and transfer payments (social security) – over time. The figure includes information on the proportion of public service spending going on transport, public order and safety (police, courts, prisons etc), defence, education and the NHS. The top line shows that about two thirds of all public service spending goes on these five functions, a proportion that grew over the 1980s but which has been stable since the mid 1990s.

Again the continually falling share of defence spending is clear. Education has maintained its share of public service spending almost constant since the early 1990s and is set to continue to do so. Perhaps slightly harder to discern from the chart is the considerable fall in spending on public order and safety as a proportion of the total: it is set to fall from a high of just over 9% in 2001–02 to 5.6% by 2014–15. It falls off over the spending review period as both the Home Office and the Ministry of Justice will see their budgets cut by around a quarter in real terms over this period.

But the most dramatic feature of the chart is, without question, the rising share of NHS spending in the total. Over the whole period it will have risen from just over 13% of public service spending to nearly 28%. It continues to increase its share of the total between now and 2014–15. Even though the NHS budget has essentially been frozen in real terms, it has done better than almost all other public services. Overall public service spending is planned to fall by around 12% in real terms between 2010–11 and 2014–15; in this context, a real terms freeze means that health spending will continue to grow as a share of the total.

Figure 6 Composition of public service spending 1978/79 – 2014/15



Notes and sources: Forecasts for health and defence spending are HMT forecasts for central government spending on health and defence. Forecasts for transport and public order and safety are based on the HMT forecasts for central government spending and assuming that this continues to account for half of public sector spending on transport and public order and safety. HMT forecasts for central government spending by function are from HMT, *Public Expenditure Statistical Analyses 2011*, Table 6.4, Cm. 8104, July 2011, http://www.hm-treasury.gov.uk/pespub_pesa11.htm. Forecasts for health spending and education spending are from Office for Budget Responsibility, *Fiscal Sustainability Report* – Long-term projections annual data series, Table 1.8, July 2011, http://budgetresponsibility.independent.gov.uk/fiscal-sustainability-report-july-2011/

3.3 Conclusions

The composition of public spending has changed a great deal over the past 30 years, and it continues to change. The state has largely withdrawn from a range of areas that were rather important in the late 1970s, in particular housing and direct spending on support for business. It has also greatly reduced the proportion of its spending that goes on defence. By contrast social protection and, especially, health have become much more important over the past three decades. What is more, the current government's spending plans are entirely consistent with this trend continuing: spending on the NHS will be approaching 30% of public service spending by 2014–15.

4. Looking forward

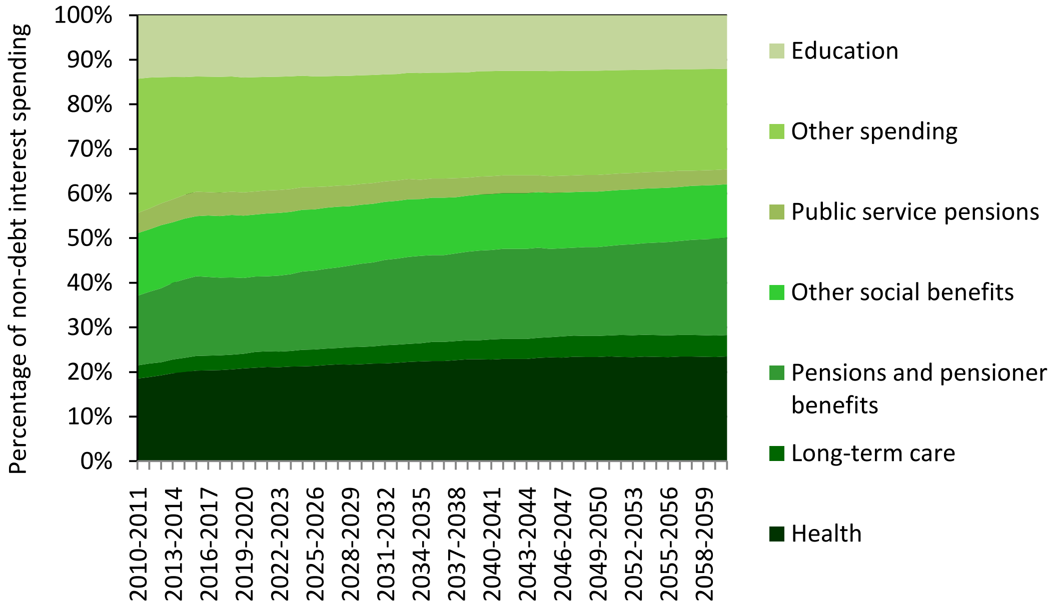
What of the longer term future? We cannot break spending down in quite the same way going out beyond the horizon of the current spending review, but we can look at some of the long term forecasts made in the OBR's recent fiscal sustainability report in the context of some the changes we have already experienced.

What the OBR did was effectively ask the question – taking 2015−16 as a baseline, if we assume current commitments to state pension payments are maintained, and we continue to spend as much per head on public services for each age group as we do now, what might levels of public spending look like in the future? This is essentially asking about the impacts of demographic change, and demographic change alone, on future public spending.

Figure 7 shows the change in the composition of non-debt interest spending between 2010−11 and 2060−61 implied by the OBR projections[2]. (Note that this is a different definition of spending to the "public service spending" seen in figure 6 and the total spending including debt interest seen in earlier figures).

[2] The OBR includes forecasts for debt interest assuming that total tax take doesn't change over time. We want to illustrate the composition of other spending without making any judgment about what might happen to total spending levels and therefore tax take or debt interest payments.

Figure 7. OBR projections for spending up to 2060–61: central scenario



% of non-interest spending	2010–11	2060–61
Education	14.3	12.0
Other non-interest spending	30.1	22.5
Public service pensions	4.5	3.4
Other social benefits	14.0	12.0
Pensions and pensioner benefits	15.6	21.8
Long-term care	2.9	4.8
Health	18.6	23.5

Source: Office for Budget Responsibility, *Fiscal Sustainability Report* – Long-term projections annual data series, Table 1.1, July 2011, http://budgetresponsibility.independent.gov.uk/fiscal-sustainability-report-july-2011/

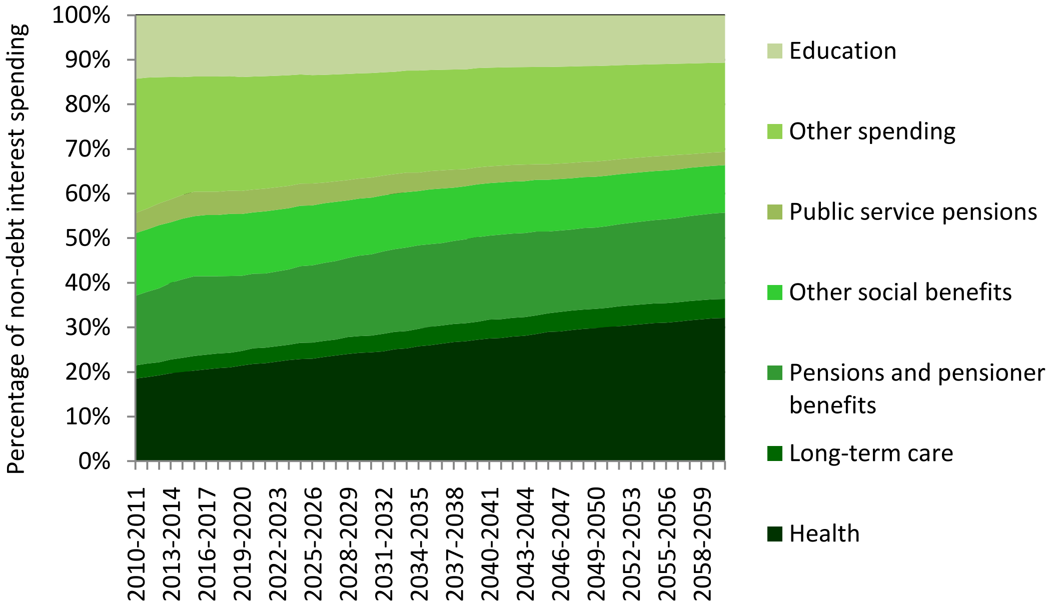
Under the OBR's central projections, spending on health is projected to continue taking up an increasing proportion of non-interest spending, growing from 18.6% of non-interest spending in 2010–11 to 23.5% in 2060–61. This would not be the fastest growing area, however; spending on pensions and pensioner benefits is projected to increase from 15.6% of non-interest spending in 2010–11 to 21.8% by 2060–61. This partly reflects increased pensioner numbers – despite the increases in state pension age to 68 being factored in – but also the fact that the value of the basic state pension will no longer automatically fall as a proportion of national income, protected as it now is by the new "triple lock" policy which will ensure it rises each year by the higher of prices, earnings and 2.5%.

Since pensions and health in particular are projected to take up an increasing share of non-interest spending, the relative importance of other public spending must fall. Even allowing for (demographically driven) projected falls in the shares of spending on education and other social benefits, all other spending would need to fall by nearly eight percentage points as a share of the total. OBR baseline assumptions are that spending otherwise grows in line with GDP growth so this fall in the relative importance of other spending areas does not imply a fall in absolute levels. But this does mean that total spending is assumed to grow to accommodate the demographic pressures. If instead other areas are cut back to accommodate the growth of health and pensions, then the decline of these other public services as a share of spending will be even more marked.

The OBR central projection assumes that real spending on health grows in line with national income – that is, by 2% a year – before the effects of demographic change (which will add to this growth rate). This would be sufficient to maintain health spending as a share of national income, so long as the price of health care provision grows at the same rate as prices in the rest of the economy. In fact this is a rather optimistic assumption. Prices in the health service have tended to rise faster than in the economy as a whole, and productivity has not kept up with productivity in the rest of the economy. In part this reflects the fact that labour costs are such a large fraction of the total in health. If prices in the NHS continue to grow more quickly and productivity less quickly than elsewhere in the economy, 2% a year real spending growth would not be sufficient to maintain health output at a constant proportion of national income. For that reason the OBR also show another scenario, in which health spending grows at an underlying 3% a year in real terms rather than 2%. They present this as an alternative "no policy change" scenario since it could also be consistent with NHS output not growing.

The effect of this alternative, and arguably more realistic, assumption on the composition of non-interest spending is shown in Figure 8.

Figure 8. OBR projections for spending up to 2060-61: health spending at 3%



% of non-interest spending	2010–11	2060–61
Education	14.3	10.6
Other non-interest spending	30.1	20.0
Public service pensions	4.5	3.0
Other social benefits	14.0	10.6
Pensions and pensioner benefits	15.6	19.3
Long-term care	2.9	4.2
Health	18.6	32.1

Source: Office for Budget Responsibility, *Fiscal Sustainability Report* – Long-term projections annual data series, Table 1.8, July 2011, http://budgetresponsibility.independent.gov.uk/fiscal-sustainability-report-july-2011/

Under this scenario health spending grows to take up a third of all public (non-interest) spending by 2060.

5. Conclusions

Inevitably there is a temptation to focus on how total levels of public spending change over time, especially at a moment when those levels are set to fall at an unprecedented rate. But the composition of public spending has also changed dramatically over the past 30 years, and looks set to continue changing.

Spending on social security, personal social services, health and education has become an increasing focus of public spending. Between them these accounted for nearly two thirds of all public spending in 2010–11, up from less than half 30 years before. That is a remarkable shift in the role and composition of the state. Obviously other functions had to contract in relative terms to make way for this spending. Two major areas of spending in the late 1970s have all but disappeared in the intervening years – direct spending on housing and on supporting business. Defence spending has also fallen considerably as a proportion of the total.

Looking to the challenges that the future brings, especially with the pressures imposed by demographic change, this adaptability of spending over time is perhaps some cause for optimism. We have managed to find space for increased welfare spending in the past. But given the potential scale of increases in age related spending, and especially in spending on health, the question naturally arises as to whether there are any current areas of spending which could take the strain by contracting in response to these pressures. There is little scope for a significant additional dividend to be got from defence or other areas that have contracted in recent years.

If other areas of public spending are not to contract significantly over the long run, that really leaves only two options. One, of course, is for total public spending to increase to accommodate demographic pressures. On OBR projections this would see (non interest) spending five percentage points of GDP higher in 2060–61 than in 2015–16 (and even that assumes underlying health spending grows no faster than national income). That is by no means impossible, and would still leave public spending as a proportion of national income below its current level. But that would imply a long term expansion in the state and would require tax increases of a similar magnitude.

The second alternative would involve further reform to reduce spending on pensions and health. On the pension side the forecasts already account for an increase in the state pension age to 68 by the middle of this century. Further increases are possible. Health reform would likely need to be rather more far-reaching and radical. Pressure on public health spending is an international phenomenon. Policies to limit demand, increase productivity or increase the use of private money are all possible and given the scale of the challenge they should all be taken seriously while there is still time. But we should be in no doubt as to the difficulties – both political and technical – in achieving the required change.