On Borrowed Time

Avoiding fiscal catastrophe by transforming the state's intergenerational responsibilities

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Miles Saltiel is a Senior Fellow of the Adam Smith Institute, where his recent publications include: *Cameron Skewered – The Lesson of a Levy on Banks; Regulatory Corporatism – Lord Turner and the Tobin Tax; G20 – Less Than Meets the Eye; and What Went Wrong? An Agenda for the G20.*

Miles read PPE at Oxford and wrote his MA dissertation on Japanese business and government at Sussex. In 1979, he joined GEC-Marconi, working in corporate finance and recoveries, to become no. 2 in Marconi Projects. In 1986 he went into investment banking, joining the WestLB Group in 1996 as Head of Equity Research, Emerging Markets. In 1998, he assumed responsibility for London-based Tech Research, and in 2000 was voted one of the UK's top 50 in the New Economy. In 2002 he left the WestLB group, where he had become the senior tech banker, to found the Fourth Phoenix Company to provide valuations and associated services to banks and industry.

Introduction

by Dr Eamonn Butler, Director, Adam Smith Institute

Despite all the talk of 'cuts', no UK political party has any proposals to reduce the government's indebtedness for the foreseeable future. Instead, what we hear about is a reduction in the annual budget deficit – that is, merely slowing down the rate at which the debt grows.

The debt is forecast to top £1 trillion early next year and to continue growing. The government already owes over £33,500 for every person in employment; this year the UK will pay more just to cover the interest than we spend on defence.

The really frightening thing is that the official debt is not the whole story. It is not even half the story. Indeed, on our calculations, it is only a tiny fraction of the story. Hidden under the counter are the other obligations that the government has guaranteed – future commitments for pensions, education, welfare and healthcare to a growing and increasingly dependent population.

The ageing population adds to these future costs. By 2060, one in eight of the population will be over 80. It is hard to know how many people – students, state beneficiaries, pensioners – will depend on the declining proportion of the population actually at work, but on present trends it will obviously be unsustainable.

These future obligations will stretch the government's budget over the coming decades. Apart from the moral problem of voting ourselves generous benefits and relying on our children (and their children) to pay for them, it is reasonable to ask whether such spending will be sustainable. Our own calculations, made in this report by award-winning analyst Miles Saltiel, confirm that even after the Comprehensive Spending Review, there are strong grounds for concern. Without action now, future governments are on course to renege on their promises or run out of cash. And the Irish example tells us how disruptive it gets, once the market no longer credits government guarantees.

It is time for honesty in public finances. The first thing we need to do is to get a handle on the true scale of the problem. This depends on some imponderables, such as the rate of economic growth: a fast-growing country can afford more government programmes than a sluggish one. Nevertheless we believe that economists and politicians should aim to create a broad consensus on the prospects, so we can see what we need to do.

Second, we need transparency in policy. At the moment, politicians announce policies that have long-term implications for future funding. We believe that these future obligations should be made explicit at the time the policy is announced, so that we at least know how much burden we are shifting onto our children.

Third, we need to go further and place limits on the volume of future cost that current governments can impose on succeeding generations.

Fourth, we need to make adjustments in our healthcare, pensions, education and welfare programmes now to ensure that they are sustainable in the long run and do not collapse in ruin, or bring ruin to the future economy. An example might be the planned increase in the state pension age. However, our calculations strongly suggest that current policies fall far short of what is needed.

In this report we identify healthcare (currently 8.1% of GDP), pensions (8.1%), education (5.9%) and welfare (5.3%) as the biggest sources of concern. They have grown, we conclude, largely because there has been too little debate about their continuing role in a world that is now very different from that of the Beveridge era, with insufficient attention given to different ways of providing the same services better. Without such frank discussion, the funding problem is likely to continue and to increase.

The report identifies options, both temporary and long-term, to turn the liabilities of these state obligations into assets, raising more than £270bn – enough to pay down 35% of our current indebtedness. The proposals harness the incentives of choice and competition, replacing runaway costs with a self-limiting system focused on innovation and value for money. Greater non-state provision, co-payments, voucher systems, personal accounts rather than anonymous government programmes, focused rather than universal benefits – all of these, we believe, have an important role to play in stabilising the public finances of the future.

1 Executive Summary

Britain faces a fiscal emergency along Irish lines in the near future, even after current spending reforms. In this paper we argue that the coalition's sums will not add up until the state radically changes its involvement in the economy. This means changing our approach to their spending which economists call 'age-related' or 'intergenerational'. Activity which once defined the welfare state now undermines its fiscal sustainability and threatens its legitimacy. It also makes individuals reluctant to assume new civic duties, with the state crowding out private charity and voluntarism. The future of British politics should not be about cuts, but about transforming the state to foster and respect personal independence – what we call a 'new whiggery'.

Intergenerational expenditures embrace healthcare, education, welfare and pensions. They first arose out of the late nineteenth century consensus that only the state could address the risks of modernisation. Such views emerged when elites were spooked by the social turmoil caused by economic growth. At that time, moreover, life expectancy at birth was in the forties, most Britons lacked education, and most jobs were based on manual labour rather than the skills or talents of individual workers.

This led the state to adopt the position of 'insurer of first resort' against the uncertainties of everyday life, providing healthcare, education and social security. However, it has been unable to fulfil these responsibilities. Instead, it has implemented de facto rationing of healthcare and education, along with a long history of piecemeal extension of services across the board. This has created a culture of expectations, by now often conceived of as entitlements, reaching a climax in the seven years of the Brown spending spree from 2001 to 2008, which recklessly added to expenditures under the impression that 'boom and bust' had been eliminated. This was popular amongst the direct and indirect beneficiaries; but it underpins the current fiscal crisis and the looming fiscal catastrophe.

We have calculated scenarios which explore the long term future of Britain's finances. These show that the coalition's plans just aren't enough: the legacy inherited from historical spending commitments puts us in the way of fiscal turmoil by 2018 – just one parliament away. Only transformational policies can correct this outlook.

Britain's economic and social conditions have completely changed from those originally giving rise to these expenditures. The country has thrived under the economic growth of the twentieth century, which no longer threatens to create disorder. Life expectancy is now in the eighties, with most Britons now educated and enjoying the possession of property and a livelihood based on their skills or talents.

This makes it timely to revisit the fundamental issues behind these intergenerational expenditures. We no longer need the state to offset everyday risk and there is even less justification for the state to ration resources than there was a century ago. Instead, the state needs to step back and allow people to plot their own courses through life. This could be seen as a new whiggery, whereby ordinary people are given free rein to accumulate the means to achieve independence and address their own risks according to their own lights.

This paper makes proposals that would enable the state to render its core responsibilities sustainable, transforming itself from the insurer of first resort to the insurer of last resort. Our plans turn healthcare and education from liabilities into assets worth an estimated £270bn, or around 35% of the UK's accumulated debt in 2010. This demands an entirely new way of looking at the state – not as the provider of welfare, but of a safety net.

2 Introduction to intergenerational obligations

On 20th October, the coalition government announced spending reforms to reduce the national deficit, but these address only the ‘on the book’ spending commitments of the past. Far thornier are the UK’s future ‘off the book’ obligations. These are the statutory or contractual commitments to spending which economists speak of as **‘age-related’** or **‘intergenerational expenditures’**. (Emboldened terms are defined in the glossary in Appendix A). The negative response to the coalition’s plans demonstrates the political difficulties inherent in any programme of spending reductions. This makes it easy to understand why no one wants to look at deeper but more remote problems. Ultimately, however, the issue is not cuts but transforming the intergenerational expenditures which have come to dominate the relation of the state to the people.

The UK has a history of ignoring these issues – of ‘kicking the can down the road’ to postpone difficult decisions. In section 3, we set out reasons to take them seriously and to do so now. In 1999, the Treasury leaned on the National Institute of Economic and Social Research to temper its definitive review

A parenthesis on terms.

To all intents and purposes, ‘intergenerational’ is a synonym for ‘age-related’. Both are in common use by specialists in this field. These expenditures amount to government obligations but not **debts** in the strict sense of the word, and so are absent from conventional balance sheets. This sometimes causes them to be dismissed as ‘off balance sheet’ or ‘off the books’. There are other such obligations, for example PFI commitments and nuclear power-plant decommissioning. To be precise, health and welfare may be seen as equally inter- as intra-generational (in other words, transfers between members of the working **cohorts** in different circumstances, as well as from working cohorts to the young or the old), but all are now spoken of together.

All such terms, however, suppress enquiry: it makes more sense to see the state as the ‘insurer of first resort’ indemnifying individuals against the vicissitudes of healthcare, unemployment, incapacity, old age and education. It does so by pooling the underlying risks across the general population and collecting premiums through taxation. Proponents point to efficiencies and rough-and-ready fairness, but overlook the adverse consequences of mismatches between the interests of those receiving services or benefits and those administering or providing them, let alone taxpayers. This has led to consistent miscalculations of intergenerational liabilities, specifically how often they occur - **risk**; and how much they cost - indemnity. We explore this below, in ‘Section 5: Character and extent of UK’s intergenerational obligations’.

The corollary of these obligations is the state’s capacity to bear them, spoken of as ‘**fiscal** sustainability’, the subject of section 6 below. For the last decade, HM Treasury has confined itself to paying lip service to this notion with an annual report which has proved to be largely unsubstantial.[1]

1 *Long-term public finance report: an analysis of fiscal sustainability*, HM Treasury, 2002 to 2009.

on the topic. Even so, the NIESR gave a coded warning that the UK's fiscal sustainability relied on spending restraint.[2] The then-Chancellor of the Exchequer went on to break through any considerations of restraint during the seven years of the 2001–2008 spending spree. This led to a fiscal catastrophe in the aftermath of the 2008 financial crisis. It also laid the foundation for the acceleration of intergenerational expenditures for the foreseeable future.

In section 4 we set out the history of the UK's intergenerational obligations and explore how the country's position has changed since the end of the second world war. In section 5, we summarise the legal, political and economic dimensions of these obligations in the present day.

We set out our quantitative projections for the future in section 6. These give measure to the scale of the problem facing the country. They highlight the issues to be addressed, above and beyond the current more or less piecemeal spending reforms. Britain faces two underlying challenges: first, those emerging from uncontrollable demographic developments, increasing the fiscal burden, with the **dependency ratio** rising from 67% in 2010 to 95% in 2060; second, programmes bearing built-in inflation in unit-costs, some long-standing, others introduced by the Brown spree.

In section 7, we present our proposals to transform policy to fix these problems in the long run. We make no apology that these reflect our political principles, but we recognise the need to make reforms which are politically palatable, and we explore this in section 8. In this light, we prefer to think of this paper as kicking off a much-needed debate, which we conclude by calling for in section 9.

This paper gives intergenerational obligations the serious treatment they deserve. We hope that others recognise the urgency of resolving them before it is too late.

2 *UK Generational Accounting,* NIESR, April 1999.

3 Reasons to take the issue seriously

Without fully accepting the alarm raised by the title of David Willetts' recent book on intergenerational responsibilities, *How the Baby Boomers Took Their Children's Future*, we recognise that intergenerational fairness is a pressing issue.[3] A moral dimension combines with the economics of a system that suppresses price formation and discovery. This institutionalises and perpetuates a settlement which hurts personal and organisational independence and erodes the long-term sustainability of the state's finances. In turn, this undermines the legitimacy of the state.

The role the state adopted in the nineteenth century, of defending the public from the turbulence of modernisation (see section 4), conflicts with its previous role, defending the public's lawful freedom and property. It diminishes freedom and appropriates property, makes promises it can't keep and introduces persistent unintended consequences through its efforts to control the economy.

Without the reversal of this settlement, it is futile to hope for popular participation in public works. State involvement also suppresses activity and innovation. Liberating **healthcare**, **education** and **welfare** from the control of the state opens up the prospect of new output, investment, skills and employment.

There is no doubt that the implementation of intergenerational services inspired genuine idealism in those who instigated them. To some extent it still does. More often, however, it has come to be an instrument by which politicians, campaigners and public employees frighten the public with 'newly-discovered' risks. Everyone would benefit if political debate could move beyond the politics of fear.[4]

It is a well-worn economic cliché that prosperity allows the luxury of making poor decisions. Even so, recent events have reminded us that the state needs to keep its powder dry against the incidence of real political and economic crises, such as wars and terrorism or crashes in banking and capital markets.

Eventual fiscal stress is in prospect, leading to the risk of a **gilts** downgrade. International bodies recognise this precarious position. In December 2009, the IFO of Munich pointed to the alarming extent of the UK's intergenerational obligations, using figures from before the deterioration under Brown's recklessness.[5] In March 2010, the Bank of International Settlements (BIS) pointed to the troubling level of the UK's future debts.[6] This was ignored, just as occurred when the BIS was the only public body to anticipate the banking crisis. In September 2010, the International Monetary Fund restated the position by pointing to the UK's worrying fiscal gap.[7]

Ratings agencies and investment banks have also signalled alarm.[8] The effect of a gilts downgrade arises out of the agencies'

3 In *The Pinch: How the Baby Boomers Took Their Children's Future - And How They Can Give it Back* (Atlantic Books, 2010), David Willets points to the crippling effect of the UK's intergenerational obligations, stressing the conflict between cohorts and classes, but focussing less on the structural defects of the current settlement.

4 In *Politics of Fear: Beyond Left and Right* (Continuum International Publishing Group Ltd., 2005), Frank Furedi draws attention to the deterioration of modern politics into interest-group or lifestyle-based lobbying and fear-mongering.

5 *Public Debt and Demography*, IFO, December 2009 pointed to a UK obligation equivalent to 13.7x debt (2009 est; 2004 figures); of nine countries examined, by far the worst.

6 *The Future of Public Debt* (BIS working paper 30 March 2010) projects that the UK is set to have the second worst fiscal imbalance of the twelve countries studied over the period to 2040.

7 *Long-Term Trends in Public Finances in the G-7 Economies* (IMF Staff Position Note, 1 September 2010. SPN/10/13, Carlo Cottarelli and Andrea Schaechter) states that the UK has the third highest fiscal gap of the G7 countries.

8 *Morgan Stanley Analyst Says Governments to Default*, Bloomberg, 25 August 2010. The article cites Arnaud Mares, formerly the lead researcher of sovereign debt for Moodys.

underlying view of sovereign risk and the mechanics of the market for sovereign debt.

Ratings agencies look at sovereign risk as follows :

- Ratings are oriented to cash-flow and immediate repayment capacity; the salient recent event has been the increment in bank obligations (note: this is a non-cash value).

- Intergenerational obligations are recognised and placed in the 'uncertain policy' box; heretofore they have not been taken as so imminent as to bear upon ratings, but this is now under review.

- The British government is taken to be a good risk on past performance, so the AAA rating was not undermined by the policy vacuum prior to the election.

If gilt ratings are downgraded below A, they are expelled from the indices of top-rated sovereign debt. Bond funds seeking to match such indices are obliged to sell existing holdings of gilts and cease to buy new issues. The only buyers become specialists in unrated, distressed or junk bonds who are only willing to pay lower prices, having the effect of forcing up yields. The details of the outcome would be affected by the mixed maturity-profile of UK debt, but the 2010 Irish crisis shows how rising bond yields can threaten the need for emergency support, available only on conditions which suspend economic independence.

We conclude that moral, political, economic and fiscal considerations combine to oblige us to take the issue seriously and we now turn to examining it in greater depth.

4 The government's intergenerational obligations

Political and social basis

In the first half of the twentieth century, the government's responsibilities expanded relatively rapidly from the provision of the common defence and domestic peace plus one or two traditional services such as the Post Office to a full-scale welfare state, following the lead set by Bismarck's Germany during the nineteenth century. On the face of it, it may seem odd that such commitments were seen as a legitimate expansion of the power of the state, given the lack of historical precedent.

In retrospect, however, we may find an explanation in a largely unavowed consensus among the elites of the day that only the coercive powers of the state were sufficient to address the unprecedented risks of modernization. These bore upon newly enfranchised electorates, who (it was thought) might otherwise adopt revolutionary sentiments. This arose out of the also-unprecedented social turbulence brought on by modern rates of continuous economic growth. It was hoped that the problems arising would be addressed by state guarantees of welfare and pensions. Furthermore, the state came to provide healthcare and education, as these services were taken to be in scarce supply. It may be more accurate to say that the state served to ration access.

At the time, the character of and rationale for state provision was little discussed; this is still the case. In any event, state provision has subsequently been extended to deliberate social engineering, leading to projects promoting regional, occupational, gender, race, lifestyle, or class interests. This has led to a self-perpetuating constituency of clients and a culture of dependency, with benefits becoming seen as entitlements and defended by the apparatus of the law. The political climate has come to be dominated by synthetic outrage tricked out as compassion and is now prey to a so-far irresistible coalition of claimants, public service providers and campaigners.

Such schemes are generalised as the promotion of 'equality'. This is a slippery notion, giving rise to the discovery of an infinite number of new instances of distress. Its futility is attested by an unexpected source: the most recent report from the Equality and Human Rights Commission, which records the cultural element in the economic outcomes of immigrant populations.[9] The report reminds us that the claims of equality are trumped by the messy reality of different levels of social mobility being achieved by different cultures, without specific interference by the state.

The character of the state's guarantees sits uncomfortably with post-war economic development:

Table 1

	1945	2010
Poverty	Common	Exceptional
Real property	Exceptional	Common
Income-producing assets	Exceptional	Unexceptional
Discretionary income	Exceptional	Near-universal

9 *How Fair is Britain?* (Equality and Human Rights Commission, 11 October 2010) presents compelling evidence demolishing the thesis that immigration or minority status is in and of itself disabling, with groups formerly defined as disadvantaged now outperforming.

So too with post-war social and demographic development:

Table 2

	1945	2010
Male life expectancy at birth	48 years	77 years
Full secondary education	Exceptional	Near-universal
Tertiary education	Exceptional	Common
Manual employment	Common	Exceptional
Lifetime employment	Common	Exceptional
Healthcare costs	Stable	Accelerating

Bases as insurance

We may best understand the inherent failings of the state's commitments by examining intergenerational guarantees as insurances. Historically, proponents of the current arrangements have argued that national risk-pools offered the benefits of:

- Low costs, by avoiding the overheads of insurances and disputes about liability; and using the bargaining-power of the state as a purchaser to keep down the price of wages and supplies, in particular drugs.

- Rough-and-ready fairness, by offering the same benefits or services to all-comers.

- Use of the tax system to avoid the problem of 'free-riders', that is those who might decline to insure themselves and rely on a state safety-net.

In fact none of these purported advantages holds water:

- In the absence of a price mechanism, there is nothing to keep the state's own costs down. To the contrary, costs have increased due to policy incontinence, the loss of control over salaries and headcount, and 'healthcare inflation'.

- The public no longer sees pensions or welfare as fair. In addition, social and technological changes mean that the public is increasingly inclined to weigh the fairness claimed for the services coming their way against concerns about quality, choice and control.

- Far from there being no free-riders, they are simply hidden and institutionalised by the labyrinthine complexity of the welfare and tax systems.

After operating for a century or so, it is plain to see what's wrong with purported guarantees based on national risk-pooling. They are so unwieldy that the state cannot but miscalculate how often services or payments are needed (also known as the risk) and how much such services or payments end up costing (also known as the indemnity). These misjudgements are inevitable once the state acts as 'insurer of first resort', in other words going beyond safety-net to offer coverage represented as universal by creating and trying to manage national risk-pools. Once decision-making is detached from those who receive the indemnity (patients, parents, pensioners and benefit claimants), let alone those paying what insurers would call the premiums (every tax-payer), defects of this kind become part of the landscape.

To summarise, in healthcare, education and pensions for the general population, the state claims to act as a surrogate for the public as insured persons, that is beneficiaries of the system; but the state has consistently underestimated the risk.

- **Healthcare**: National risk-pooling has failed to recognise the technological, demographic and social changes which have led to the extension of life expectancy and the proliferation of medical procedures once either unknown or seen as elective. It has taken decision-making away from the users, patients, and placed it with the suppliers of the service, doctors and health administrators, making it subject to *de facto* but largely unacknowledged rationing. This leaves patients dissatisfied, in particular with the speed of diagnosis and the character of treatment. In addition, there are only weak incentives to control cost.

- **Education**: National risk-pooling has failed to recognise the technological and social changes that make parenthood a more controllable (and hence foreseeable) option.[10] As with healthcare, risk-pooling has taken decision-making powers

10 The proportion of women with no children has grown from 10% for those born in 1945, to 19% for those born in 1960. Better educated women lead the trend, with thirty percent of graduate women forecast to remain childless.
Sources: ONS and Centre for Longitudinal Studies, Institute of Education, London; cited in Daily Telegraph http://www.telegraph.co.uk/news/uknews/5637417/One-in-five-women-stay-childless-because-of-modern-lifestyle.html

away from the user, in this instance parents, once again allowing capture by suppliers, that is teachers, their unions and the education authorities. Here too the service is subject to rationing, standards generally seen as unsatisfactory and well-entrenched incumbents who have succeeded for a couple of generations in obstructing reform.

- **Old age pensions**: In this instance, national risk-pooling makes some sense in principle, as the exercise is truly intergenerational. Even so, the state is unable to follow through on its promise of an old age free from anxiety, as misjudgements of the principal risk arising, life expectancy, have made only modest indemnities affordable.

In public sector pensions and welfare, the state claims to act as a surrogate for the public as the taxpayers who in effect subscribe the insurance premiums; but the state has consistently underestimated the indemnity.

- **Public sector pensions**: Here too, the authorities have been caught out by the increase in life expectancy. In addition, public service workers and unions have been able to outmanoeuvre the state into abandoning cost control, so that public pensions have become featherbedded beyond reason.

- **Welfare**: Until the advent of the current coalition, claimants - or more accurately their representatives among campaigning groups, public service unions and parliamentarians - formed an irresistible alliance for policy incontinence, turning welfare into a way of life for individuals, families and in the worst case parts of the country.

Conclusion

The UK is now suffering consequences which are inevitable once the state offers guarantees against the ups and downs of everyday life, creating national risk-pools by taking on responsibilities as the insurer of first resort. This has led to capture by producer interests and direct and indirect beneficiaries, who have become a self-serving client subculture. The consequence has been miscalculations of risk and indemnity – ‘policy incontinence’, the reckless extension of coverage originally designed for an earlier era – which we explore in the next section.

5 The UK's intergenerational obligations today

Public pensions to government employees: Pensions are the UK's second largest intergenerational commitment, currently estimated at 8.1% of 2010 GDP or £117bn, approximately half of which goes to former government employees and half to the general population.[11] All pensions lend themselves to **actuarial** calculation, so these obligations have been most subject to review beyond government and the specialist community. Early data on government expenditure on pensions is thin on the ground, but we do know that since 1995, such expenditure has expanded from 5.8% of GDP to the current level. By contrast with the other expenditures discussed in this paper, during the 'Brown spree' spending on pensions was relatively stable, increasing its share of GDP by 3.1% in total (calculated on the 1995 GDP base). Even so, the underlying liability for pensions to public employees may be taken to have increased in line with the 20% increase in public sector employment, plus a similar figure for salaries per head, that is over 40% in all.

The statutory bases for pensions to government employees are the Police Pensions Acts 1948, 1961 and 1976; the Teachers Superannuation Act, 1967, the Superannuation Acts, 1972, 1990 and 2005; the Armed Forces (Pensions and Compensation) Act 2004; and some other legislation. In addition there may be contractual bases collectively negotiated with each group of employees. The political background of these pensions is that growth is due to increased headcount, salaries and benefits. Even so, they are relatively amenable to policy-reversal, for example the tie to earnings may be weakened or abandoned, or retirement ages may be raised.

The outlook for public sector pensions is that without reform they are set to expand at a rate determined in particular by healthcare employment and salaries. These pensions are grounded in statutory and **contractual obligations** plus the political competition leading to past policy incontinence, amplified by the largely unexpected increase in life expectancies. It is relatively easy to change policy by legislation or contract renegotiation, but the courts may enforce pension obligations against the will of the government of the day.

Pensions for the general population - 'Old Age Pensions': The statutory bases of pensions for the general population are the Old Age Pensions Act 1908, the Widows Orphans and Old Age Contributory Pensions Act 1925, the National Insurance Acts 1946 and 1965, the Social Security Contributions and Benefits Act 1992 and other legislation. The political background embraces in particular the effects of the baby-boom as the post-war cohort approaches its period of dependency. In addition there has been inherent policy incontinence, as payments are linked to earnings or the cost of living. Even so, these pensions too should be amenable to policy-reversal, as the tie to earnings may be weakened or abandoned and the retiring age may be raised.

The outlook is for expanding expenditure, with luck at a tapering rate as the effects of the baby-boom cohort work through. Spending is grounded in the National Insurance Acts and other statutes, plus political competition leading to past policy incontinence, amplified by the largely unexpected increase in life expectancies. As noted, it would be relatively easy to change policy by legislation.

Healthcare: This is the UK's second largest intergenerational commitment, currently estimated at 8.1% of 2010 GDP, or £120bn, but its extent is generally unrecognised outside government and the specialist economic community. It has risen continuously since 1947 (and at odds with Treasury forecasts in 1999) in the absence of the restraining effects of a price mechanism.

11 Unless otherwise stated, the sources for all figures in this section are set out in Appendix B.

Table 3: Summary as at end of 2009[12]

	NHS	Civil servant	Teachers	Armed forces	Police
Total no of pensioners (000)	705	600	601	252	111
Total pension in payment (£bn)	4,613	3,413	5,446	3,809	1,434
Average age of entry into scheme	35.0	34.8	28.8	20.7	26.1
Average retirement age	61.8	61.8	61.8	45.8	55.0
HMG's assumption for life expectancy of its 65-year old pensioners in 2010	23.9	23.9	23.9	23.9	23.9

The statutory bases for healthcare spending are the National Health Service Acts, 1946, 1966, 1977, 1990, 2001, 2006 and other legislation. The political background is a bipartisan pledge to service 'free at the point of delivery' and 'regardless of the ability to pay'. It is thus no surprise that expenditure has expanded continuously thanks to the combined impact of the aging of the baby-boomers; increased longevity (male life expectancy at birth up by 70% since 1945); policy incontinence (new conditions recognised and treatments devised); and sustained inflation (historically 2.5% based on the RPI).

Since 1947, healthcare expenditure in the UK has expanded from 2% of GDP to the current level of 8.1%, that is at an annual rate of 2.2%. During the seven year period of the 'Brown spree' from 2001 to 2008, expenditure on healthcare increased its share of GDP by a total of 37%.

The outlook for healthcare expenditure cannot fail to alarm. It is firmly grounded in statute, national affection and political competition. It is bound to continue to expand due to baby-boom and longevity effects, made worse by the current instance of policy incontinence, the coalition government's commitment to ring-fence healthcare expenditure during the current parliament. We construe this as maintaining the share of GDP absorbed by healthcare at the current level. It would be rash to rely on the eventual possibility of reversing unit-cost effects with technology developments, in the absence of a price mechanism to transmit economic signals. In the absence of transformation well beyond current thinking, healthcare expenditure is set to come up against the brute buffer of tax incapacity.

Welfare: This is the UK's third largest single intergenerational commitment, currently estimated at 7.5% of 2010 GDP or £109bn. The statutory bases for welfare spending are the National Insurance Acts, 1911-13, 1946 and 1967 and other legislation. The political background to welfare is particularly unfortunate. In principle, welfare should vary inversely with the economic cycle, but spending has expanded promiscuously to such an extent as to give rise to regions and cycles of dependence. The UK has suffered from policy incontinence addressing the everyday circumstances of good times, for example enhanced childcare, travel passes, free TV licenses, 'trust funds', long-term social care and other novel expenditures; even more than policies addressing bad times, such as tax credits and fuel allowances. In particular incapacity benefit without intervention has contributed to a conspicuous policy failure by way of prolonged regional, family or sub-cultural dysfunctions.

Since 1947, expenditure on welfare in the UK has expanded from 0.03% of GDP to the current level. During the 'Brown spree' from 2001 to 2008, expenditure on welfare increased its share of GDP by 41%. The potential for these expenditures is that they can return to a self-adjusting level, provided the consequence of past policy incontinence is reversed, as currently being attempted by Iain Duncan Smith's reforms.

Education: This is the UK's fourth largest single intergenerational commitment, currently estimated at 5.9% of 2010 GDP or £86bn. The statutory bases for educational expenditure are the Education Acts, 1870, 1880, 1902, 1918, 1944, 1951, 1966, 1973, 1988 and other legislation. The political background embraces a combination of demographic pressures – 'Generation Z'-related effects; the prospect of a new baby-boom; immigration; and policy incontinence on a massive scale – in particular, the social engineering intended to improve social capital or advance social mobility by way of extending tertiary (and in due course postgraduate) education to the applicable cohort; and the extension of adult education. The longstanding national debate about selective education is a surrogate for a debate about the allocation of resources held to be (or, in the absence of an effective price mechanism, kept) in scarce supply.

Since 1890, education expenditure in the UK has expanded from 0.7% of GDP to the current level. During the 'Brown spree', expenditure on education increased by 18%. The outlook for education expenditure is grounded in the Education Acts and

12 *Public Pensions Report*, Government Actuary's Department, December 2009; Annexes C, D and E.

other statutes, plus political competition. The costs, quality and scarcity of secondary education lend themselves to immediate correction with a scheme of vouchers paving the way for more root and branch reform. This also holds out the prospect of addressing social mobility issues. Tertiary and adult education can be addressed with loans. Even so, the announcement on 14 October of special education for selected pupils from the age of two illustrates the continuing danger of policy incontinence.

Summary

Our preliminary examination confirms the character of policy incontinence and puts figures to its consequences, also hinting at the scope for piecemeal reform and transformation. In the following section, we explore the fiscal outlook under selected assumptions about demography, economic activity and future levels of intergenerational expenditure.

6 The outlook: our scenarios for the future

We set out below selected scenarios for the fiscal outlook. These are calculated under key assumptions which can be varied by the user, in particular overall growth rates of GDP and life expectancy, plus specific growth rates for each head of intergenerational expenditure (absolute growth); and the proportion of growth in GDP shared with the generality of intergenerational expenditure (relative growth).[13]

As all our projections are cash we are able to calculate net present values (NPVs), without making large conceptual leaps. We also do the latter as a memorandum item for those accustomed to them, but attach more weight to the outcome over time.

The advantage of our approach is that it throws up policy dilemmas and identifies where they occur. The disadvantages are that its political and economic assumptions can be challenged. In particular, the model treats growth exogenously (that is as a user-generated input) and holds taxation and non-intergenerational expenditures as a constant share of GDP after the coalition reforms announced in the 2010 Comprehensive Spending Review.

Not only do we treat growth exogenously to our model, but our calculations take no account of the effects of the level of state expenditure upon the general level of GDP. This relationship is hotly argued both ways: a minimum or high or growing level is held to be required to abate cyclical turbulence in general or at present; alternatively a maximum or low level is held to be required to maximise growth.[14] In fact, the controversy should not bear upon our conclusions, as we focus not so much on cuts as on transforming the nature of intergenerational services, if anything encouraging more supply and spurring new activity.

Our key demographic assumption is that life expectancy increases by one year every 4.5 years. This is a conservative estimate which recognizes the natural ceiling to life expectancy growth: the rate is currently one year every three years. The charts below show that from 2010 to 2060, the UK dependency ratio is estimated to rise from 66.6% to 95.2% of the total working population; with the proportion of people over eighty increasing by 2.5 times from 4.7% to 12.6%.

Figure 1a: UK – estimated dependency ratio, 2010-2060

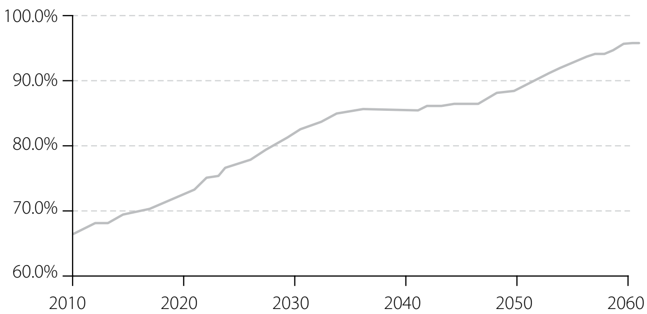
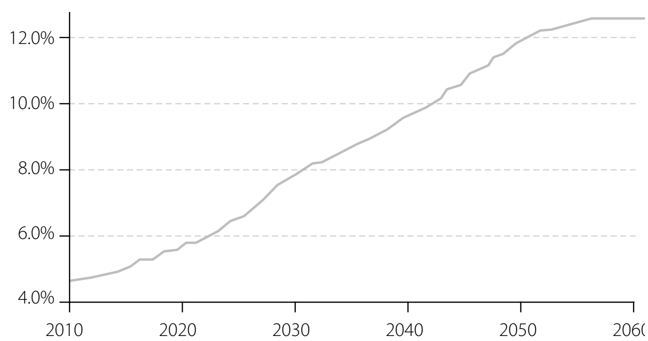


Figure 1b: UK – estimate of over eighties ratio, 2010-2060



13 See appendix B for sourcing. The model can be downloaded from www.adamsmith.org/fiscal-stability.

14 The IMF has estimated that the outer limit of borrowing for an economy like the UK is 160% of GDP. Based on 200 years of data, the leading analysts of banking crises, Reinart and Rogoff, estimate that growth is substantially impaired if debt exceeds 90% of GDP. Based on 99 countries since 1980, Caner, Grennes, and Geib estimate that the threshold for impairing growth is 77% of GDP (*Finding the Tipping Point - When Sovereign Debt Turns Bad*, Social Sciences Research Network, 20 May 2010). All as cited in the *Economist*, 9 October 2010, *Special report: How to Grow*, pp8, 10. Our own model draws attention to both the 'credit watch' thresholds employed by ratings agencies, that is debt of 100% or a deficit of 10% of GDP.

A parenthesis on calculations.

The customary method of calculating intergenerational expenditures is to use a discount rate to obtain a net present value (NPV) from cash flows based upon actuarial estimates. The expression of intergenerational obligations as an NPV throws up alarming figures by comparison with conventional debt, but the figures are not taken that seriously. This is because these calculations are seen as being too theoretical to be equivalent to borrowings, not least as their method is conceptually incoherent.

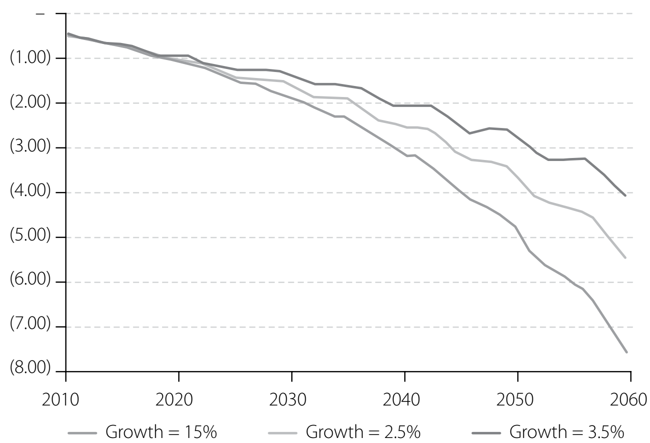
The calculations apply the cash-oriented notion of an NPV to actuarial estimates, although the latter are non-cash. The effect of a discount rate upon actuarial obligations is counter-intuitive and leads to a sterile debate about the rates chosen and their effect upon figures which are ultimately conjectural, also suppressing recognition of the effects of the increase in longevity.

The use of an NPV suppresses a sense of the timescale of the problem. NPVs themselves are also susceptible to small changes in the discount rate. The consequent debate between experts is equally sterile, ending up concentrating on a narrow technical topic rather than policy. Squabbles about discount rates also suppress any challenge to over-comfortable assumptions about economic growth.

The method chosen in the model underlying this paper is cash expenditures and income in constant pounds. We compare forecast expenditures to government income year by year.

Our **base-line** assumption for economic activity is a compound annual growth rate (**CAGR**) of 2.5% over the period from 2010 to 2060, the generally accepted estimate for the trend rate of growth based on the historical performance of the UK economy since the industrial revolution. Our figures take account of the Treasury estimates for growth over the next three years. The chart below illustrates that the outlook for accumulated debt is sensitive to changes in growth assumptions. This is, however, largely theoretical as after 2018 on all assumptions, the UK's accumulated debt is set to exceed the **credit watch** threshold of 1.0x GDP.

Figure 2: UK – estimates of accumulated debt/GDP, 2010 to 2060, on selected growth assumptions



We now turn to the scenarios themselves. To summarise the conditions prevailing on 5 May 2010, election day, there was no political limit on healthcare expenditures, which were increasing at pre-election rates, as were National Insurance and public sector pensions, education and welfare expenditures, all of which were subject to the political commitment by the Conservative Party that they would 'share the proceeds' of future GDP growth. The fiscal outlook was for debt and deficit levels over 'credit watch' thresholds, paving the way for downgrades of gilts. The political response of the coalition was the emergency budget which was prompted by the need to redress the projected consequences of the existing budget situation on the sustainability of Government borrowing, excluding intergenerational spending implications.

On 22 June, budget day, with some tax rises but otherwise no change from election day, the fiscal outlook was that debt and deficit levels remained over 'credit watch' thresholds. The political response of the coalition was the Comprehensive Spending Review, though once again this was not prompted by intergenerational concerns.

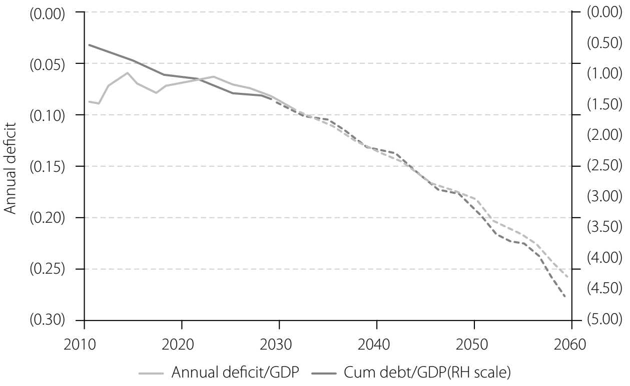
Base-line scenario: spending cuts as CSR, i.e. taking effect by 2015-6; 100% of growth devoted to public spending (none to pay down debt) thereafter.

Our base-line scenario follows the Comprehensive Spending Review, which we expect to be achieved by 2015-16, after which

16 For details of assumptions and outcome for base-line scenario, see Appendices C and D.

all the ‘proceeds of growth’ are taken to fund additional public spending rather than additional debt repayment.[16]

Figure 3: Base-line scenario

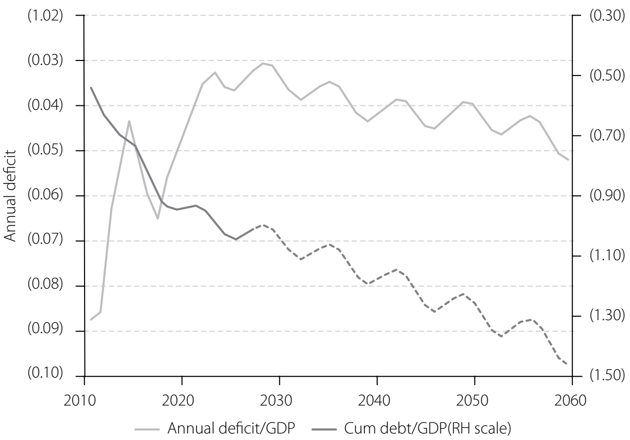


Dotted lines depict levels over credit watch

The fiscal outlook is for accumulated debt to return to ‘credit watch’ levels as soon as 2018, paving the way to a tipping point now seen in Ireland. We would expect the political response of denial at this point, leading to eventual piecemeal action as thresholds approach. A happier, though unlikely, alternative would be reasoned debate following this and other such calls for action.

‘Straw man’ scenario: spending cuts as CSR, i.e. taking effect by 2015-6; 50% of growth devoted to public spending (50% to pay down debt) thereafter.

Figure 4: ‘Straw man’ scenario



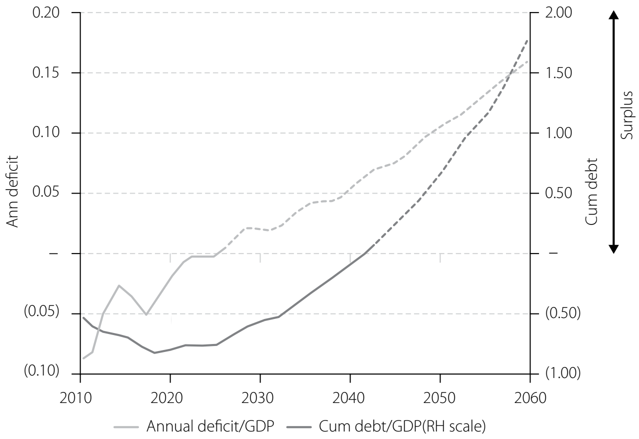
Dotted lines depict levels over credit watch

This partial improvement in the fiscal position leads to a fiscal outlook where debt reaches ‘credit watch’ thresholds in 2024 and continues to increase thereafter.[17] The expected political response to such a scenario is likely to be that it is too hypothetical to be worth considering.

‘Iron man’ scenario: spending cuts as CSR, i.e. taking effect by 2015-6; no growth devoted to public spending (100% to pay down debt) thereafter.

A complete transformation in the fiscal outlook occurs, with net repayments after 2016 and debt fully repaid after 2042. [18] The expected political response to such a scenario is likely to be that the full repayment of debt is the doctrine of perfection, so less demanding targets suffice. A happier response would be the examination of the transformative policies necessary to achieve such an outcome, or the medium term fiscal balance set as an agreed target.

Figure 5: ‘Iron man’ scenario



Dotted lines depict positive balances

A comparison of the ‘straw man’ and ‘iron man’ scenarios illustrates the need to develop a consensus on piecemeal limits and the key long-term issue, the share of growth applied to intergenerational expenditures.

Conclusion

The coalition’s current plans, however painful, just aren’t enough and threaten the next parliament with fiscal conditions undesirable to borrowers. This places the coalition in a dilemma:

16 The base-line scenario models a limit for healthcare spending taken to be the result of a future policy consensus, to avoid the reductio ad absurdum of otherwise untrammeled growth. For details of assumptions and outcome for base-line scenario, see Appendices C and D.
17 For details of assumptions and outcome for ‘straw man’ scenario, see Appendices C and E.
18 For details of assumptions and outcome for ‘iron man’ scenario, see Appendices C and F.

either it must buckle down to a fundamental transformation of the state's intergenerational obligations or it is laying up trouble for the not so distant future. No surprise if it prefers the latter; after all, something may come up. But if not, our estimates show the next government set for conditions of fiscal turmoil along Irish lines. Perhaps that is the only way that transformation can occur. On the other hand, we would prefer that policy be animated by the more responsible spirit of acting now to see off a predictable crisis. In this light, we turn in the next section to transformational policies.

7 Steps towards transformation

In this section we set out the transformative principles and policies needed to place government finances on a firm footing, and compare these to the coalition's current policy and proposals. Our proposals do not shy away from thinking the unthinkable; some will choose to see them as outlandish. Another view would be that today the public is, by and large, sufficiently wealthy and informed to justify the rebalancing of risk between the state and the individual. In addition, services now restricted by the state should be liberated wherever practicable.

Overall, we seek to develop an altogether new regime, which we have deemed a 'new whiggery', named for this regime's intellectual ancestors. This recognises that possession of private property provides the most effective, dignified and moral way for the general public to address the risks of everyday life. At the same time we recognise the need for transitional arrangements to pave the way to the new balance.

There is a tri-partisan consensus in favour of public service reform, but after Blair's attempts were scuppered by Brown and incumbent interests, the coalition is confining itself to piecemeal reforms. So far, proposed reforms have included GP commissioning (healthcare), employee ownership (local authority services), universal credit (welfare) and budgeting by capitation (education). All, however, operate within budgets which on our figures make for fiscal disarray within a parliament. The alternative is transformation: that the state should cease to act as the 'insurer of first resort', to become 'the insurer of last resort'. That means confining its role to supplying safety-net coverage to those unable to fend for themselves. This would have the crucial effect of fostering the formation of risk-pools which are smaller, closer to those concerned and above all, better understood by the public. Disaggregated risk-pools would pave the way for the emergence of price mechanisms which we would expect to act as elsewhere – balancing supply and demand, fostering innovation and controlling costs.

General framework to transform policy

Our thinking calls for a new consensus on the role of the state in these matters. This means a consensus (and institutions to defend the agreements arising) on limits in state activity and on legal claims by persons on the state; and on a supportive tax and regulatory regime for non-state expenditure and personal savings. We envisage that such arrangements would:

- Restrict the levels of debt and deficit; restrict overall levels of taxation and expenditure, nationally, by region and by individual; restrict expenditure for each intergenerational head.
- Develop institutions to defend the new consensus: for example, a super majority to overthrow new arrangements, extending the remit of the courts, or foreign treaties.
- Develop non-state institutions to abate risk: for example, pension providers and other insurers; health and education providers; derivative markets in annuities, life expectancy, etc.; and other service providers as set out below.

Specific proposals

Transformative proposals for healthcare

Healthcare reform poses by far the greatest challenge. For many twenty-first century Britons, veneration of the NHS comes close to religious faith. This makes it essential that practitioners and the public are given reasons to support transformation, by configuring policies along the lines set out in Section 8 below which addresses the political dimension. It also calls for prompt engagement with the slogans of service 'free at the point of delivery' and 'regardless of the ability to pay', by demonstrating that transformation away from this model would not entail personal or social breakdown. We would:

- Disaggregate the risk-pool, to distinguish between the vast majority, who are qualified to assume insurable risks, and those who are *de facto* uninsurable by reason of their inability to pay premiums. Insurers may also disaggregate the risk-pool to take account of other individual circumstances. This can be problematic with innate personal features such as age, gender, DNA profile or pre-existing medical conditions, where regulation prohibiting such disaggregation may be desirable. By contrast, most would see less reason to discourage disaggregation for personal behaviour, such as engaging in high-risk sports, drug addiction, excessive alcohol intake or dysfunctional eating habits. In any event, we would address the problem of free-riders by obliging individuals to purchase a minimum, 'bare-bones' package of health insurance for themselves and their dependents. This requirement would be accompanied by a supportive tax and regulatory regime.

- Essentially then, the state's involvement in funding healthcare would be limited to (a) defining the minimum healthcare package that everyone is obliged to have, (b) enforcing the individual mandate, and (c) assisting those individuals who are unable to afford the insurance premiums on their own. There are a host of tax and regulatory measures that the government may wish to consider in support of these reforms, including the establishment of health savings accounts (or 'medical ISAs') and tax credits for private health insurance.

- Disaggregate risk conditions, between minor and major, uncertain and certain, and acute and chronic. This paves the way for the differentiated allocation of the risks arising. Minor risks, like colds, minor injuries and optical and dental care are often already paid for by patients. Childcare risks and elective treatments are more problematic, posing essentially political decisions. Purists might argue that parents should pay the medical costs stemming from choosing to have children (as with adoption) and similarly for those choosing gender reassignment, but this is likely to be unreasonable to many. Acute life and livelihood-threatening risks introduce the scope for a portfolio of approaches, embracing private health, loss of earnings and incapacity insurance together with last-resort coverage by the state. Risks which are chronic or certain (e.g., the last two years of life) give rise to the requirement for last-resort coverage for those unable to save or insure for them.

- Disaggregate indemnities, for example with excesses, deductibles or co-payment (that is, with sums to be paid by directly by the insured); or alternative treatment protocols (as in Denmark, where patients choose between full reimbursement of care provided by a physician chosen for a year and by his selected specialists; or complete freedom of choice of any physician or specialist at any time, with reimbursement of two-thirds of the cost); or variable cover for treatments of equivalent clinical quality, but lesser convenience (for example, diagnostic or pharmaceutical protocols). This provides for a variety of sources of income for hospitals, paving the way for the next proposal.

- Break up and privatise hospitals and other state service providers. No single proposal has greater scope to horrify defenders of the status quo, but no single proposal offers greater promise of rebalancing the supply of services, following disaggregation of the risk-pool, risk conditions and indemnities. Privatisation embraces recapitalising PPP financing where necessary and operating hospitals at arms-length from multiple funders. It introduces a market for control and gives the public and practitioners an economic interest in reform by way of ownership of the new entities.

  Ideas of this kind are gaining traction: ResPublica has just proposed that assets of this kind be transferred to communities.[19] For our part, we would welcome a variety of institutions as new owners, extending from charities, through co-operatives of doctors and other professionals, existing local and international hospital groups, to newly formed companies. Certain hospitals may have something akin to 'common carrier' obligations, that is that they would be obliged to take responsibility for all patients presenting themselves at Accident and Emergency.

  We estimate the proceeds of an arms-length sale at £236bn after recapitalising PFI obligations of £28.9bn.[20] This is nearly six times the £40.2bn attributed to Department of Health assets (including intangibles and investments) in the 2007 National Asset Register.

- Foster competition among non-state providers of services, e.g., offshore facilities, local or specialist hospitals, clinics, surgeries, laboratories, diagnostic centres, convalescent and recuperative services, abolishing barriers to entry; review licensing to open up professional recruitment.

Transitional proposals for healthcare

We understand that at this point the coalition is confining itself to the most tentative programme of doing good by stealth. In this light, Andrew Lansley's proposals to introduce primary care

19 *To Buy, to Bid, to Build: Community Rights for an Asset Owning Democracy*, Phillip Blond and Steve Wyler, ResPublica, London, 15 November 2010.
20 For details of and sources for this figure, see Appendix G.

commissioning and abate NICE protocols for treatment so as to make for greater practitioner discretion are welcome. We see both of these as a desirable preliminary to decision-making by the patient. We would also:

- Continue to abate NICE protocols, by abolishing centralised norms, in particular enabling alternative approaches to pharmaceutical and equipment sourcing and testing, treatment and dosing protocols; and by permitting co-payment for departure from protocol for e.g., accelerated or discretionary diagnosis, surgery, medicines or after-care.

- Provide for government payment by full or partial reimbursement of service users rather than directly to healthcare providers.

- Rebalance the remuneration of primary physicians away from capitation and towards fee for service, defining service so as to avoid the risk of bill-padding.

- Exclude selected conditions now covered by the NHS.

- Introduce minimum user-fees for all services.

- Foster increased provision of private insurance for e.g., excluded conditions, user-fees, home-nursing, residential care, or accelerated or discretionary diagnosis, surgery, medicines or after-care, with a supportive tax and regulatory regime.

Make no mistake, healthcare reform promises a bed of nails. Perverse incentives seem hard to avoid, given the singular combination of high capital and labour intensity, rapid technological and demographic change plus timing mismatches in coverage, condition, treatment and side-effects. Even so, we take the view that patients will be best served by strengthening the links between provider and user and giving the latter greater responsibility.

Transformative proposals for pensions to public employees

Pensions minister Steve Webb's proposals have the effect of a sensible piecemeal approach to reducing liabilities. Pensions are relatively well researched and understood, with many of the elements of reform in place or well-signalled. Further transformative reforms for public employees would be to:

- Phase out defined benefit schemes.

- Introduce alternative schemes for private provision on defined contribution basis, with a supportive tax and regulatory regime, to include 401k-type arrangements (i.e., low-load, portable, self-invested).

- Offer transitional proposals for pensions to public employees

- Abolish centralised norms, in particular enabling regional differentiation.

- Abandon the link between benefit and final income.

- Increase employee contributions.

- Delay coverage until reaching a later stated age, which should rise with life expectancy

Transformative proposals for National Insurance ('Old Age') pensions

The coalition has yet to engage effectively with this issue. Arrangements so as fully to move pension liability from the state to private persons are hampered by the currently-low levels of saving for private pensions. This has been in part precipitated by current economic conditions, but private pensions in general have also fallen into a degree of disrepute. This follows the adverse effects of regulation by Gordon Brown as Chancellor and the impossibility of binding future administrations under current constitutional practice. This reinforces the importance of creating a new consensus and arrangements to defend it. More specifically, we would argue that the state should:

- Use the tax and regulatory regime to discourage private employers' defined benefit schemes.

- Encourage private employers to offer alternative schemes on defined contribution basis, with a supportive tax and regulatory regime, to include 401k-type arrangements (i.e., low-load, portable, self-invested).

- Bring forward legislation to see the UK through transition from a pay-as-you-go pension system, where current taxes are used to fund current pensions, to a fully-funded system, where pensions are paid from individual funds accumulated over the course of an individual's working life. Chile began such a transition in 1980/81, while Singapore's Central Provident Fund, which fulfils a similar role, has been in operation since 1955. Such a transition would certainly be more difficult in the UK, with its much-venerated welfare state, but it is nevertheless possible. Australia's 'Superannuation' programme, under which employers contribute 9% of an individual's income to a private fund, and those individuals are given tax incentives to supplement this with private contributions, may provide a sensible model. The state's role would thereafter be confined to providing a safety net for elderly people with insufficient savings.

Transitional proposals for National Insurance ('Old Age') pensions

- Increase national insurance contributions, and ring-fence them to pay for pensions.

- Reinforce the proposals of the coalition to delay the last-resort coverage of the state pension until reaching a later stated age, which should rise with life expectancy.

Transformative proposals for education

Michael Gove plans to have secondary school funding follow the pupil, but he has run into the opposition to be expected from incumbent educationalists in his ministry and the local authorities. Understandably frustrated and presumably hoping to use the former against the latter, there are reports that he now plans to centralise spending decisions according to formulas reflecting his underlying policies. This is intended to place operating decisions in the hands of head-teachers. We support Mr Gove's intentions, but are hesitant about this approach. It is hard to believe that civil servants or politicians would refrain for long from micro-managing the formulas, or that head-teachers would be able to resist pressure from Whitehall.

It would be simpler to appeal to the public directly by making more of the evidence of developments in public education in Sweden and the Netherlands, not to say the UK's private sector, which show that education is most satisfactory when there are strong relations between parents and service provider. We would move as quickly as possible to a voucher scheme, abandoning national risk-pooling and introducing scope at the most local level for personal and organisational price formation and discovery in services and recruitment. We would:

- Privatise state providers, making for a market for control and giving the public and practitioners an economic interest in reform by way of ownership in the new entities. We would be hesitant in estimating the proceeds of this exercise as political considerations may dictate that the disposal be made by vouchers for *gratis* distribution. If, however, the climate lends itself to fundraising, a value for the education establishment of 1.0x estimated 2010 revenues (that is expenditures) would be £73bn, after deducting an estimated £13bn attributable to tertiary establishments.[21]

  As with hospitals, we would welcome a variety of institutions as new owners, extending from local associations of parents, through co-operatives of teachers, charities and existing local and international educational groups to newly formed companies. Also as with hospitals, schools may need to have something akin to 'common carrier' obligations, that is they would be obliged to take responsibility for pupils presenting themselves at the school gate under certain circumstances.

- Foster competition with non-state providers, e.g., offshore, specialist, residential and general schools, remedial educational facilities, summer, evening and vacation crammers, specialist and general tutoring, demolishing barriers to entry.

- Introduce a voucher system for primary and secondary schooling; deregulate school examinations, syllabuses and teaching methods; and review teacher licensing to free up recruitment.

Transitional proposals for education

It is hard to tell if Mr Gove's current scheme will bring about the sort of transformation that is necessary, or if it is simply another episode in the forty-year litany of educational retrogressions and failed reforms. Transformation could turn out to be too much of a stretch at present, so in order to pave the way we would:

- Abolish centralised norms, in particular enabling curricular specialisation or other local preferences.

- Privatise teaching colleges, deregulating teacher training syllabuses.

- Re-charter tertiary establishments to establish their non-state basis.

- Derecognise unions in order to open up the profession to practitioners free of the restricted thinking currently prevailing.

- Introduce full self-funding for tertiary education and a supportive tax and regulatory regime for savings by parents or borrowings by students.

Transformative proposals for welfare

The reforms launched by Iain Duncan Smith do much to limit, simplify and introduce conditions to state-provided welfare, opening up the prospect of abolishing some of the most notoriously perverse incentives.[22] Even so, they do not seek to effect a transformation of the system, doing nothing to cultivate a climate in which ordinary people are expected to plan for the

21 This figure is conservative, to the extent that the ratio of 1.0x revenues is well below the 1.8x revenues arising out of the more detailed estimate of healthcare values.

22 The proposals for a universal credit cannot avoid the need to set a rate by which benefits taper off as claimants enter into remunerated work. We take the view that the rate of taper should be guided by the principle that people are best motivated if they keep most of the extra money they earn. So just as we favour top rates of tax well below fifty percent, so would we prefer a taper at similar levels.

predictable vicissitudes of everyday life. In order to do so, we would:

- Foster private provision for incapacity, income, mortgage insurance etc; plus intervention schemes, with a supportive tax and regulatory regime.

- Foster competition between non-state providers, demolishing barriers to entry.

- Excluding uninsured incapacity, offer last-resort coverage conditional on intervention and end coverage after a stated period.

- Offer last-resort coverage only at modest levels for uninsured incapacity due to life-style; or if declining or defecting from intervention.

Transitional proposals for welfare
The Duncan Smith reforms are very much pointing in the right direction. To reinforce their thrust we would:

- Abolish centralised norms, in particular enabling regional differentiations.

- Abolish universal benefits and state funding of legal challenges on welfare provision, including charities sponsoring such challenges.

- Reinforce the newly proposed limit in household or personal receipts to (say) 80% of the regional average, using the modal average to avoid the effects of high outliers.

Summary

The issue calls for a profound reform of long-standing structures, beyond the proposals of the current coalition, for which new political constituencies need to be built. It is important to understand that our approach is not one of 'cuts'. Indeed, we emphasise the evidence that, with stable and supportive regulation, liberating healthcare, education and welfare from reliance on the state would lead to an increased supply of these services, just as occurred with telecommunications services after privatisation. This should lead to a corresponding increase in investment and productivity. We turn to the political dimension in the next section.

8 The political dimension

As this report has shown, intergenerational spending commitments need radical change if they are not to pose an existential threat to the British state. As Ireland's current troubles demonstrate, states that allow spending commitments to run out of control can collapse rapidly and dramatically. To avoid Britain following Ireland on a much larger scale, change is needed now.

If such long-standing structures are to be transformed, and if the reforms are to stick, there needs to be a broad-based consensus in support of the reforms. This requires the application of the most effective ideas to opinion-formers and swing voters, as well as a configuration of policy to meet those with a direct interest in the reforms, both in the professional world (for example, doctors and teachers) and in the general public (for example, pensioners and parents of school-age children). This is a selection of arguments that illustrate the wide-ranging appeal that a 'new whiggery' might have. Transformation would:

- Avoid the irresponsibility of saddling future generations with unsustainable burdens; it would also avoid the danger of uncontrolled policy incontinence that occurs when increasing benefits and services combine with increased longevity.

- Promote the classic liberal values of transparency and constraint upon an otherwise unrestrained executive. It would stop twenty-first century Britain being stuck with a set-up well past its sell-by date and foster a greater sense of individual independence by treating people like grown-ups.

- Foster a diversity of provision in health and education, in that a variety of approach most effectively addresses divergences in regional circumstances and resolves debate about what constitutes 'best practice'.

- Foster fairness in pensions by way of the principle of equivalent and fully-funded rights in the public and private sectors, plus reliable long term regulation.

- Change fiscal liabilities into assets, by paving the way for the dissolution of burdens upon the public purse and the realisation of assets. It would allow for greater savings, a lower tax burden and greater predictability of future tax levels. It would put funding for public projects onto an honest basis and foster the reliability of government in future dealings with lenders and the public.

- Provide more secure benefits, programmes and employment. It would introduce scope for new and as yet unforeseen services and employment by opening up supply in health, education and welfare (as occurred when telecommunications were opened up a generation ago); and new employment elsewhere arising out of higher economic growth.

The interests of professionals may be met by configuring policy to include:

- Voucher or otherwise preferentially allocated shares in privatised service providers for doctors, teachers and other professionals and employees by service establishments.

  (Note: If ten percent of the estimated proceeds of hospital privatisation were reserved for doctors, each would obtain an interest worth £149,000. If one quarter of the estimated value of school privatisation were reserved for teachers, each would obtain an interest worth £27,000.)

- Greater independence over professional strategy, operational methods and finances.

- Greater scope to innovate.

- Improved working conditions or contracts.

- New, more skilled or otherwise more rewarding occupations.

The interests of consumers or the general public may be met by configuring policy to include:

- Voucher or otherwise preferentially allocated shares in privatised service providers for residents of catchment areas.

- More school or hospital places.

- Greater personal control over services.

- More innovations, choice and other improvements in service.

- Lower overall taxes.

- Tax breaks for insurances, pension savings and university loans.

The last two items raise the possibility of more general tax reform, for example tax simplification or rebalancing fiscal support away from housing and towards intergenerational responsibilities. Although this may turn out to be an essential element of a new political settlement, it is beyond the scope of this paper.

We conclude that the political dimension needs to be carefully thought out to cultivate a lasting constituency for reform among opinion-formers, swing voters, producers and the general public.

9 Conclusion

Few want to think about the problems outlined in this paper, but they are urgent and pressing. Furthermore, they serve as an opportunity to create a new political and economic settlement that is sustainable into the future. Indeed, it is best to look upon them as an opportunity to revive the legitimacy of the state in the conditions of the twenty-first century by reducing its remit to the core services it originally evolved to provide. We believe that the government should foster, if not preside over, a prolonged period of debate, discussion and education embracing experts in the field, decision-makers, opinion-formers, interested parties and the general public. The objective would be to develop a generally agreed understanding of the true economic, demographic and social position here and now and for the foreseeable future.

Ultimately, the debate should be brought to a conclusion by something akin to the Beveridge Report, to summarise the new consensus and pave the way for policy, always bearing in mind that early attempts may meet the fate of Barbara Castle's In place of strife in 1969, or Frank Field's frustrated attempt in 1997-8 to 'think the unthinkable'.

This debate must start now, before the problems become too great to resolve without a great deal of pain – as is now the case in many European countries that are suffering because of their own refusals to deal with economic problems sooner. Our approach calls for a new consensus. We recognise this is a stretch in the heated climate of piecemeal reforms, but radical ideas can capture the public imagination and lead to radical change.

Britain is on the brink of catastrophe – it's time to step back.

Appendix A: Glossary

Actuarial	The application of mathematical and statistical methods to assess future probabilities, in particular of **life expectancy**.
Age-related	Expenditures on **education, healthcare** and **pensions**, extended to include expenditure on **welfare**. Also **'intergenerational expenditure'.**
Base-line	The collection of assumptions on which discussion is centred; and the basis of unaltered assumptions, essentially as the coalition's tax and spending proposals, also assuming that the **relative share** of **intergenerational obligations** remains at 100%.
CAGR	Compound annual growth rate. In the case of **GDP** growth, we have taken the assumptions used by HM Treasury from 2010 to 2013 and thereafter figures equating to an CAGR of 2.5% throughout the fifty year forecasting period.
Cohort	A group comprising persons of like age.
Contractual obligations	Government expenditures required under contracts with employees.
Coverage	The extent of entitlement to payments under government programmes.
Credit watch	Ratios which define thresholds, below which credit rating agencies give notice of the risk of downgrades in government securities, e.g., **gilts**. The thresholds have been set at the ratio conventionally used by rating agencies of annual **deficit** to **GDP** of 10% and of accumulated **debt** to **GDP** of 100%.
Debt	The accumulation of government borrowings; also 'net debt'.
Deficit	The annual difference between expenditure and income, if negative.
Dependency ratio	The ratio of persons under 18 and over 64 to persons between 19 and 63.
Discount rate	The rate used for **NPV** calculations, for the purposes of this model the rate on 30 year **gilts** on 22 June 2010.
Education	Government expenditure under the Education Acts and subsequent **statutory obligations.**
Fiscal	Government accounting.
Fiscal balance	The relationship between government expenditures and receipts.
GDP	Gross Domestic Product, a measure of the overall economic activity of a nation.
Gilts	Debt issued (that is, borrowed) by the British government: 'gilt-edged bonds'.
Growth rate	The difference in economic activity between periods.
Healthcare	Government expenditure under the National Health Acts and subsequent **statutory obligations**.
Intergenerational expenditure	Expenditures on education, healthcare pensions and welfare. Also **'*age*-related expenditure'.**
Indemnity	Payments or services received by individuals by way of provision for education, healthcare pensions and welfare.

'Iron man' scenario	A collection of assumptions, essentially as the **'straw man' scenario**, except that the **relative share** of **intergenerational obligations** is reduced to zero, leading to the repayment of **debts** and ***deficits.***
Life expectancy	For the purposes of our model, population life expectancy at birth, that is the number of years which a new-born may be expected to survive. Unexpected recent increases have falsified the **actuarial** projections underpinning **pensions**. We have used figures equating to an increase of one year every 4.5 years. At present life expectancy is increasing by one year every three years. The **ONS** uses lower figures.
NPV	Net present value, a calculation expressing future cash flows in present -day terms, using a **discount rate** and a **terminal value**.
ONS	The Office of National Statistics which has the **statutory obligation** to calculate population statistics and such like.
Pensions	Government expenditure under the National Insurance Acts and subsequent **statutory obligations.**
Public pensions	Government expenditure on the pensions of its former employees, arising out of both **statutory obligations** and **contractual obligations**.
Relative share	Participation in prevailing **GDP growth.** The **base-line** assumption is that after the current round of cuts, all growth in the overall economy is shared by **intergenerational commitments.** This reflects past experience and government statements, though the model shows this to be unsustainable.
Risk	The frequency with which an event leading to an **indemnity** occurs.
Risk-pool	The population covered for a particular **risk**.
Scenarios	Collections of assumptions, e.g., **base-line*, 'iron man'*** and **'straw man'.**
Statutory obligation	Duties of the government or one of its departments arising out of an Act of Parliament.
'Straw man' scenario	A collection of assumptions, essentially that coalition reforms to take effect within one parliament and that the **relative share** of **intergenerational obligations** is reduced to 50%, leading to reduced **debts** and **deficits**.
Terminal value	A calculation of the value of cash-flows, from the last period to be explicitly estimated to infinity. The conventional calculation returns irrational values, if the **growth rate** in the final period exceeds the **discount rate**. This occurs in the case of **pensions**, so the model applies a synthetic rate (a simple average of the growth rates attaching to other expenses) to the cash-flow in the final period.
Welfare	Government expenditure under the National Assistance and National Insurance Acts and subsequent **statutory obligations**.

Appendix B: Acknowledgements and sources

We acknowledge the value of exchanges with the following, all of whom we thank and none of whom should be taken as endorsing our model or conclusions: Andrew Baigent, National Audit Office; John Ball, Head Of Defined Benefit Contributions, Towers Watson; Dr Christian Hagist, University of Freiburg, co-author of *Future of Public Debt*, IFO, December 2009; Prof David B Smith, University of Derby; Andrew Thomas, Moody's senior analyst for UK sovereign debt; and Dr Martin Weale, Head of NIESR, publisher of *UK Generational Accounting*, April 1999, now under revision.

Sources for fiscal data

All years: Gross domestic product: as sourced by Measuring Worth, U.K. GDP

Prior to 1950: Central and local government spending outturn: B.R. Mitchell, *British Historical Statistics*. Cambridge University Press, 1988.

1951 to 1960: General government spending outturn: Central Statistical Office, *National Income and Expenditure 1962*, table 44 analysis of expenditure, combined public authorities, table 43 combined capital and current account (combined public authorities), table 35 analysis of capital accounts (public corporations); and Central Statistical Office, *National Income and Expenditure 1956*, table 36 analysis of capital accounts (public corporations).

1961 to 1971: General government spending outturn: Central Statistical Office, *National Income and Expenditure 1972*, table 49 analysis of public expenditure 1961 to 1971.

1972 to 1982: General government spending outturn: Central Statistical Office, *National Income and Expenditure 1983*, table 9.4 analysis of total expenditure.

1983 to 1994: General government spending outturn: *Public Expenditure - Statistical Analyses 1998/99*; and table 3.2 general government expenditure by function, 1982/83 to 1997/98.

1995 to 1998: Central government spending outturn: *Public Expenditure Statistical Analysis 2001*, table 5.2 Central government own expenditure by function, 1994-95 to 2001/02; and table 7.3 Capital Expenditure of Public Corporations, 1994/95 to 2001/02. Local Authority spending outturn: *Public Expenditure Statistical Analysis 2001*, table 6.2 Local authority current and capital expenditure in the United Kingdom by department, 1994/95 to 1999/2000.

1999 to 2003: Central government spending outturn: *Public Expenditure Statistical Analysis 2004*, table 4.5 Central government own expenditure on services by function, 1998-99 to 2005-06; and table 7.3 Public corporations' capital expenditure 1998/99 to 2005/06. Local authority spending outturn: *Public Expenditure Statistical Analysis 2004*, table 6.6 - Local authority current and capital expenditure in the United Kingdom by function, 1998/99 to 2003/04.

2003 to 2007: Central government spending outturn: *Public Expenditure Statistical Analysis 2008*, table 6.5 Central government expenditure on services by sub-function, 2002-03 to 2010-11; and table 8.3 Public corporations' capital expenditure, 2002-03 to 2010-11. Local authority spending outturn: *Public Expenditure Statistical Analysis 2008*, table 7.6 local authority current and capital expenditure on services in the United Kingdom by function, 2002/03 to 2007/08.

2004/05 to 2010/11: General government spending plans, *Public Expenditure Statistical Analysis 2010*, tables in Chapter 9. Local authority spending estimated outturn, *Public Expenditure Statistical Analysis 2010*, table 7.4 local authority current and capital expenditure on services in the United Kingdom by function, 2004/05 to 2009/10.

2008 to 2009: Central government spending outturn: *Public Expenditure Statistical Analysis 2010*, table 6.4 central government expenditure on services by sub-function, 2004-05 to 2010-11; and table 8.3 public corporations' capital expenditure, 2004/05 to 2010/11. General government spending outturn: *Public Expenditure Statistical Analysis 2010*, tables in Chapter 9. Local authority spending outturn: *Public Expenditure Statistical Analysis 2010*, table 7.4 local authority current and capital expenditure on services in the United Kingdom by function, 2004/05 to 2009/10.

2010: Central government spending, estimated outturn: *Public Expenditure Statistical Analysis 2010*, table 6.4 central government expenditure on services by sub-function, 2004/05 to 2010/11; and table 8.3 public corporations' capital expenditure.

All above as cited at http://www.ukpublicspending.co.uk/

Other Sources	
BBC	Armed Forces headcount
Bloomberg	Gilts rate
Daily Telegraph	Police headcount
Civil Service Department	Civil service headcount (and as cited on www.civilservice.org.uk)
Department for Children Schools and Families (as was)	Teacher headcount
Department of Health	NHS headcount and earnings
Government Actuary's Department	Public Pensions Report, December 2009
Office for National Statistics	Population projections
Office of Health Economics	Load on healthcare by cohort

Appendix C: Assumptions for all scenarios

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Effects on 2010 budget etc	% GDP	(£bn)	First year	Over (yrs)
New taxes	5.0%	6.02	2011	4
Assumed future asset sales	n.a.	50.0	2012	3
General reduction (excl health)			Overall 25%	4
New retirement age	**At age**	**From**	**Over (yrs)**	
First raise to	66	2018	2	
Second raise to	70	2020	4	

This model can be downloaded from www.adamsmith.org/fiscal-sustainability

Appendix D: Details of base-line scenario

Assumptions

Demographic variable		
Average life expectancy at birth increases by one year every	4.50 years	
Economic variable		
Growth rate (fifty year average)	2.50% p.a	

Variables for future policy		
Relative share		
Share of growth in GDP devoted to intergenerational expenditures	100%	
Absolute share		
Pensions	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	2.41%	5
Public pensions	**p.a**	**For (yrs)**
No of years of legacy (premium) increases		10
Education	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	0.69%	5
Healthcare	**p.a**	**For (yrs)**
Healthcare specific price inflation (reduction)	1.5%	p.a
Increase (reduction) in coverage	1.0%	p.a
Political limit	10.5%	GDP

Outcome

Demography			
Closing population (m)	82.3		

Government finances			
Govt spend (incl interest)/GDP – 2060	64.4		
Repayments begin	never		
Debt fully repaid	never		
Healthcare spending limit reached	2015		

Credit watch		Begins	
No of years debt < 1x GDP threshold	43	2018	
No of years deficit < 10% GDP threshold	28	2033	

NPV of obligations	**£tn**	**x GDP (2010)**	**x debt (2010)**
Healthcare	7.0	4.8	9.1
Pensions	11.9	8.2	15.4
Education	3.8	2.6	4.9
Welfare	3.7	2.5	4.8
Total	**26.4**	**18.2**	**34.2**

The model can be downloaded from www.adamsmith.org/fiscal-sustainability.

Appendix E: Details of 'Straw man' scenario

Assumptions

Demographic variable		
Average life expectancy at birth increases by one year every	4.50 years	
Economic variable		
Growth rate (fifty year average)	2.50% p.a	

Variables for future policy		
Relative share		
Share of growth in GDP devoted to intergenerational expenditures	50%	
Absolute share		
Pensions	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	2.41%	5
Public pensions	**p.a**	**For (yrs)**
No of years of legacy (premium) increases		5
Education	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	0.69%	5
Healthcare	**p.a**	**For (yrs)**
Healthcare specific price inflation (reduction)	1.5%	p.a
Increase (reduction) in coverage	1.0%	p.a
Political limit	10.5%	GDP

Outcomes

Demography			
Closing population (m)	82.3		

Government finances			
Govt spend (incl interest)/GDP – 2060	43.4		
Repayments begin	never		
Debt fully repaid	never		
Healthcare spending limit reached	2016		

Credit watch		Begins	
No of years debt < 1x GDP threshold	36	2024	
No of years deficit < 10% GDP threshold	–	never	

NPV of obligations	**£tn**	**x GDP (2010)**	**x debt (2010)**
Healthcare	7.0	4.8	9.1
Pensions	7.0	4.9	9.1
Education	2.7	1.8	3.5
Welfare	2.8	1.9	3.6
Total	**19.5**	**13.4**	**25.3**

The model can be downloaded from www.adamsmith.org/fiscal-sustainability.

Appendix F: Details of 'Iron man' scenario

Assumptions

Demographic variable		
Average life expectancy at birth increases by one year every	4.50 years	
Economic variable		
Growth rate (fifty year average)	2.50% p.a	

Variables for future policy		
Relative share		
Share of growth in GDP devoted to intergenerational expenditures	nil	
Absolute share		
Pensions	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	2.41%	5
Public pensions	**p.a**	**For (yrs)**
No of years of legacy (premium) increases		5
Education	**p.a**	**For (yrs)**
General increase (reduction) – % p.a	0.69%	5
Healthcare	**p.a**	**For (yrs)**
Healthcare specific price inflation (reduction)	1.5%	p.a
Increase (reduction) in coverage	1.0%	p.a
Political limit	10.5%	GDP

Outcomes

Demography			
Closing population (m)	82.3		

Government finances			
Govt spend (incl interest)/GDP – 2060	22.4%		
Repayments begin	2026		
Debt fully repaid	2042		
Healthcare spending limit reached	now		

Credit watch		Begins	
No of years debt < 1x GDP threshold	–	never	
No of years deficit < 10% GDP threshold	–	never	

NPV of obligations	£tn	x GDP (2010)	x debt (2010)
Healthcare	7.0	4.8	9.0
Pensions	3.8	2.6	5.0
Education	1.7	1.2	2.2
Welfare	1.9	1.3	2.5
Total	**14.5**	**10.0**	**18.8**

The model can be downloaded from www.adamsmith.org/fiscal-sustainability.

Appendix G: preliminary estimate of value of NHS hospitals as going concern

All £b unless otherwise stated		Note
Total NHS expenditure 2010E	**120.0**	1
Total primary headcount	72,153	2
Total secondary headcount	1,104,903	2
Est total hospital expenditures	**112.6**	3
Assume gross available margin	19.0%	4
Gross profit	**21.5**	5
Less tax	(5.8)	6
Net profit	15.7	7
Apply FTSE sector PE	14.5x	8
Estimated gross value	**227.1**	9
Less PFI obligations	(28.9)	10
Estimated net value	**198.2**	11

Notes

1. Source: Public Expenditure Statistical Analysis 2010, table 6.4 central government expenditure on services by sub-function, 2004/05 to 2010/11; and table 8.3 public corporations' capital expenditure

2. Source NHS Hospital & Community Health Service (HCHS) monthly workforce statistics - July 2010, Provisional, Experimental Statistics, FTE

3. Pro rata to headcount

4. Based on BMI Opco. YT Sept 2009. Revs £798m; PBT £25m; Rent to captive propco £127m.

5. Product of above

6. Standard tax charge of 27%

7. Sum of above

8. FTSE Healthcare equipment and services sector PE, 4 November 2010

9. Product of above

10. Signed PFI Projects List, cash-flows discounted at gilts rate

11. Sum of above