



Universal Basic Income: An idea whose time has come?

Howard Reed and Stewart Lansley

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Compass is a home for those who want to

build and be a part of a Good Society; one where equality, sustainability and democracy are not mere aspirations, but a living reality.

We are founded on the belief that no single issue, organisation or political party can make a Good Society a reality by themselves so we have to work together to make it happen. Compass is a place where people come together to create the visions, alliances and actions to be the change we wish to see in the world.



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About Compass and this project

Compass is the pressure group for a good society, a world that is much more equal, sustainable and democratic. We build alliances of ideas, parties and movements to help make systemic political change happen. One strategic focus of Compass¹ is on policy ideas that are rooted in real needs now but which have transformative potential. Universal Basic Income is one such issue and speaks to every element of the good society we want to create. This first piece of work is intended to show that a UBI is a viable policy option for the UK now. We would like to follow this work up with more research and in particular to help launch a popular and impactful campaign for widespread and eventually political support for the introduction of UBI.

A NOTE ON TERMINOLOGY

We have opted throughout this paper to use the term Universal Basic Income (UBI). Others use the term Citizens Income (CI). Both have their merits. CI encapsulates the notion of 'citizenship' – a critical and democratic concept that is important for progressives to promote, not least because of its value in establishing our identities beyond work and consumption. But its downside is that it excludes those who are not yet citizens, hence the adoption of UBI here.

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As ever, any errors and omissions are the fault of the authors.

Howard Reed and Stewart Lansley
June 2016

Foreword

Foreword

As we approach the third decade of the 21st century it is becoming clear that norms and attitudes to work bear very little resemblance to those that prevailed when the welfare state was first forged.

Beveridge's model of national insurance was rooted in a series of simple assumptions: that jobs were full time and permanent, paying enough for the worker (presumed to be male) to support a dependent wife and children; and that illness or layoff were temporary setbacks whose impact could be cushioned by payouts from a system into which each worker had contributed. This model never reflected the reality for all. Some women continued to work; some jobs were casual or seasonal; some wages were too low to support a family; the self-employed did not quite fit. Nevertheless, it had enough traction to be accepted by most of the population as fair and sensible. Nobody wanted to go back to the dark days of the 1930s depression and both left and right accepted it pragmatically as a legitimate foundation for post-war social harmony and economic growth.

Nearly 70 years later, the simple distinctions of the mid-20th century have disintegrated. Women are as likely to work as men; jobs have splintered into assemblages of discrete tasks; training and education are spread along the life course; and the fixed boundaries of the working day and working lifetime have dissolved. In 2014, the Office for National Statistics (ONS) estimated that 1.8 million workers were on contracts that 'do not guarantee a minimum number of hours'.² A 2016 survey found 11% of the population aged 16–75 (the equivalent of nearly 5 million people) working for online platforms, paid by the task.³ Growing numbers of British people are piecing together a patchwork livelihood from multiple sources, not knowing from one day to the next if or when they will be paid. For creative workers, on whose innovations an increasingly knowledge-based economy relies, the borderline between unpaid and paid work is fluid and shifting. Today's brainstorm or jam session may turn into tomorrow's multi-million pound app or award-winning record. Yet we still have an obsolescent benefit system that attempts to classify people neatly into those binary categories: 'employed' or 'unemployed'; those 'genuinely seeking work' or those who are not.

The present system, in short, is no longer fit for purpose. It is cumbersome and expensive to administer and penalises claimants whose messy and complex lives do not fit neatly into its anachronistic categories. But that is not all. It also disadvantages employers who, in a competitive global economy, want to access labour flexibly on demand, and artists and innovators who want to develop new ideas without starving. In other words, it does not just damage social cohesion, it harms the very economy it is supposed to help.

The question is: what can replace it? Cogently marshalling the available evidence, including a summary of the moral arguments, this report demonstrates that there are viable alternatives to the present outdated benefit system.

Ursula Huws

June 2016

Executive summary

This paper examines the desirability and feasibility of introducing a universal basic income (UBI) scheme in the UK. It examines the merits of such a scheme, how it might be implemented and what role it might play in the search for a good society, one that is more equal, sustainable and democratic. In particular, it presents the results of a number of simulations of how such a scheme would work in practice, including its cost, distributional impact and feasibility. The analysis has been commissioned by Compass. It has been funded by the Joseph Rowntree Foundation and uses the Landman Economics tax-benefit model (see appendix A).

There are very strong arguments in favour of a UBI. Such a scheme would overcome many of the problems with the existing and increasingly complex, punitive and unpopular system of social security, which in multiple ways has become a weak tool for social protection but a strong tool for waste and the humiliation of those on the very lowest incomes. A UBI would provide a much more secure income base in an age of deepening economic and social insecurity and unpredictable work patterns. It would offer much greater financial independence and freedom of choice for individuals between work and leisure, education and caring while recognizing the huge value of unpaid and voluntary work.

Central to the case for a UBI is the way it would help prepare us for a world in which the new technological revolution, driven by artificial intelligence and robotics, will, over time, transform the nature of work and the type and number of jobs. A UBI offers a powerful way of protecting all citizens from the great winds of change to be ushered in by the fourth industrial age, and of sharing the potentially massive productivity gains that it will bring.

The big issue with a UBI is not whether it is desirable but whether it is feasible. Would it be affordable, and could it be introduced in a way that prevented losses among the poorest sections of society? Who would gain and who benefit? In an attempt to provide some answers to these questions, we have undertaken a series of simulations of how variants of such a scheme might work in practice. All the schemes modelled are real UBIs in that they are paid to everyone, without condition, and cannot be withdrawn. The amount paid is obviously crucial but can be scaled up.

We have examined two UBI models: a full scheme (that replaces most means-tested benefits) and a modified scheme (that leaves existing means-tested benefits in place, at least initially). The results of our simulations show that:

- a full scheme that replaced all or most of the existing system would be difficult to implement in the present circumstances; it would be too expensive and there would be too many losers among poorer households
- it would be possible to implement a modified scheme, which would raise average incomes at the bottom, reduce poverty levels, significantly for children, and reduce the level of inequality, all at a manageable cost.

While a modified scheme would be a hybrid, at least initially retaining most elements of the existing system, it would contain a genuine unconditional income and deliver many of the benefits of a full scheme. It would constitute an extension of universality in social security and reduce the volume of means testing

by around a fifth. It could be implemented quickly and could be treated as essentially transitional, as a first step towards the implementation, over time, of a full or near-full scheme.

Such a scheme would have an estimated net annual cost of around £8bn, just under 0.5% of gross domestic product (GDP). This is a relatively modest sum in relation to the huge benefits of such a scheme and the reduction in poverty and inequality that it delivers. Moving towards a fuller scheme would involve additional costs over time. Perhaps the most effective way of meeting such costs would be by creating a targeted UBI social wealth fund, a collectively owned pool of financial funds and assets. The returns from such a fund could be used to help finance some or all of the additional costs associated with a more generous UBI scheme.

The principle of a UBI is now being increasingly widely accepted and is gaining support across the political spectrum in the UK and other countries. In the UK, several high profile organisations have now backed the principle of a basic income including the Royal Society of Arts. In 2015, the longstanding right-of-centre think tank, the Adam Smith Institute, called for the introduction of a negative income tax to replace tax credits, Jobseeker's Allowance and other means-tested benefits.⁴ The 2016 conference of the Scottish National Party has backed the principle of a UBI, as has the Green Party, while some Liberal Democrats have called for a UBI to become party policy.⁵ The new shadow chancellor, John McDonnell, has expressed interest in the concept in the past and more mainstream MPs such as Jonathan Reynolds MP have come out in support of UBI.⁶

The idea of a UBI has been steadily rising up the political agenda and has a growing number of advocates. In 2010, Iran became the first country in the world to establish a nationwide basic income where it is financed from oil revenues.⁷ The Alaskan scheme has been in place for a quarter of a century, but pays an annual dividend, not a weekly income. There have been pilot schemes in the USA, Canada, Namibia and India.

In Switzerland, a national referendum on the implementation of a scheme is to be held in 2016. The Canadian province of Ontario is to trial a scheme in the same year, while there are plans to launch limited local schemes in Finland, the Netherlands (prompted in part by the broadcast of two Dutch documentaries about basic income, which have raised public awareness of the idea) and France.

These forthcoming overseas experiments are helping to build momentum in support of an idea that, until recently was confined mostly to a few think tanks, commentators and academics. It is now time for a national debate on the issue and for Britain to follow the lead being taken elsewhere to launch its own pilot scheme.



1. The case for a universal basic income

A UBI would pay a tax-free, unconditional and non-contributory basic weekly income to every individual as of right, irrespective of how much they earned or their work status. It would aim to replace at least part of the existing social security system and would involve a profound revolution in the way income support is organised.

The principle of a universal basic income (UBI) has a long pedigree. It has been promoted over time by a diversity of British, American and European thinkers as diverse as Tom Paine, Bertrand Russell, Friedrich von Hayek, Martin Luther King Jr, Paul Samuelson, JK Galbraith and Milton Friedman. Significantly, and unusually for such a radical change, a UBI has gained support across the political spectrum, from right and left, from pro-marketeters as well as social democratic interventionists, though for very different reasons.

The left has seen such a scheme as a way of securing a robust income floor and of tackling poverty and but also as a means of promoting equal citizenship and encouraging a more equal distribution of income. For them (and us), it is a recognition that all citizens have the right to some minimal claim on national income. It is a profoundly democratic and egalitarian concept that promotes both security and genuinely effective freedom. The right, on the other hand, has favoured a basic income as a way of minimising state action in other areas, of offering both a minimum income and freedom of choice about how to spend that income.

A significant strength of a UBI is that, by providing a guaranteed minimum income, it would relieve a number of the flaws in the present social security system arising from the growth of state-imposed restrictions on benefits and its heavy reliance on means testing. A UBI would constitute a significant extension of the universal model of social security, creating a much more robust safety net, and reducing reliance on means testing and the growing problems of low take-up, the poverty trap and the stigma associated with it.⁸

Many people in need fall through the net because of the growing complexity of rules over entitlement, while the much tougher system of sanctions introduced by the coalition government in 2013 has led to close to one million recipients being denied benefits altogether, from a minimum of four weeks up to three years. In a large number of cases, this has resulted in individuals and families running out of money entirely, leading to severe hardship and sometimes destitution for those with no other source of income.

Another key strength of a basic income is that it would provide more freedom and choice. By providing basic security, it would give people more time and more bargaining power in the labour market. With a growing debate about how to balance work–life commitments in a much more insecure work environment, a UBI would offer people greater flexibility between work, leisure and education, and over the type and length of employment, while providing greater opportunity for child care, caring and other community responsibilities. Some might choose to work less or take longer breaks between jobs. Others would be incentivised to start businesses. Some might drop out of work entirely to care or retrain, while others might devote more time to leisure, personal care or community support and less to paid work.

The opening up of greater choice would be especially beneficial to women. A UBI treats women as an individual, not as part of a household, giving them the potential for greater economic independence. Importantly, a UBI would both acknowledge and provide financial support for the mass of unpaid work, disproportionately undertaken by women, in childcare, care for the elderly and voluntary help in the wider community. It would also increase personal autonomy, enabling people, for example, to escape more easily from abusive relationships.

It offers an alternative tool for tackling poverty, a growing problem, which has become increasingly concentrated among the workforce since the early 1980s. Traditionally, the solution to working-age poverty has been through a mix of decently paid employment and state income support. But income support is being weakened while secure work is becoming less available. One of the great strengths of a basic income is that it separates survival from employment and production. Tackling poverty would become less dependent on the ‘work guarantee’.

Significantly, a UBI would provide a more robust system of support in today’s much more fragile economic climate. It would be a very effective tool for tackling growing economic risk, and especially the rise of technological unemployment. Indeed, one of the most compelling arguments for a UBI comes from the acceleration in automation, with the arrival of smart robots, 3D printing, algorithms, big data and driverless cars. The 20th century model of social security is not well fitted to the 21st.

The likely impact of today’s technological advance is, as in previous periods of rapid change, hotly debated. Robert Gordon in *The Rise and Fall of American Growth*, for example, accepts that we are on the cusp of a software and IT revolution, but argues that the effect will be much weaker than widely predicted.⁹ Others, such as Andy Haldane of the Bank of England, have warned that very large numbers of jobs could be at risk.¹⁰ Although the full scale of the impact is inevitably uncertain, the weight of opinion is that technological and digital change will weaken the job prospects of large sections of the population at almost every level, from manual work through to the professions, as complex decisions are made better and faster by machines. It will certainly bring much disruption and upheaval for individuals and society, and is already doing so.

Some of those at the forefront of these warnings – the futurologists and technologists – have been among the strongest advocates of a UBI.¹¹ In his 1995 book *The End of Work*, the American analyst Jeremy Rifkin concluded that the most effective way to at least partially protect those who would become displaced by machinery would be through a guaranteed income.¹² Silicon Valley is full of fans of the principle of UBI, though with mixed motives. Martin Ford, for example, a Silicon Valley entrepreneur and author of *The Rise of the Robots*, argues that the most effective solution to the disruptive impact of automation, a process that will affect a wide range of occupations, is ‘some form of basic income guarantee’.¹³

Despite the inevitable disruption, the productivity gains likely to stem from automation could also offer potentially huge new social and economic opportunities. In 1931, in *The Economic Possibilities for Our Grandchildren*, JM Keynes predicted that by 2030 the growth of productivity would have created a society sufficiently rich that most people would choose more

leisure and less work. The big social issue would be how to use abundant free time. In the event, Keynes was right about technological progress, but wrong about leisure. Keynes had not reckoned with the growth of turbo-consumption and the seemingly endless creation of new wants into new needs and the produce–consume cycle that must go with it. Neither could he foresee the rise in inequality despite the rise in GDP.

But the new technological revolution opens up one possible route to the vision set out by Keynes, provided the fruits of the gains of the fourth industrial revolution could be harnessed to spread opportunities and choice. But such potential wider benefits can only be realised if the inevitable disruption is minimised, any productivity gains are more equally shared and the losers compensated. If the winners enrich themselves and ignore the wider fall-out, then today’s already gaping inequality and opportunity gap will simply widen further. The task for progressive policy over the next decade and beyond will be to manage this process and introduce a way of redistributing the benefits to all.

A UBI is one powerful tool for ensuring the gains are fairly distributed and not colonised by capital, while making an important contribution to realising the new potential for choice offered by the new technology, while ensuring that any losses are minimised. Indeed, these risks greatly reinforce the case for a UBI. Later we argue that one way of ensuring that technological progress is used for the common good is by a twin approach, in which a UBI scheme is funded, at least in part, by a newly created and dedicated social wealth fund. Such funds are collectively held financial funds, fully owned by the public and used for the benefit of society as a whole.¹⁴

Finally, there is an ecological argument for a UBI. The planet cannot sustain the current rates of consumption and growth. Could a shift to less work, underpinned by the security of a UBI, encourage us to find fulfillment in other ways than life as turbo-consumers, buying things we didn’t know we needed, with money we don’t have to impress people we don’t know? Would the freedom and security offered by a UBI allow us to explore better ways to be fully human, without destroying the only planet we have? We don’t yet know. But we need to find out, and fast.

‘A UBI is one way of ensuring the gains [from technological change] are fairly distributed and not colonised by capital, while making an important contribution to realising the new potential for choice offered by the new technology... one way of ensuring that technological progress is used for the common good is by a twin approach, in which a UBI scheme is funded, at least in part, by a newly created and dedicated social wealth fund.’

2. The critics of universal basic income — and some responses

Despite the benefits of introducing a UBI outlined above, the idea of a UBI has not gained universal approval. Despite its many merits, there are a number of practical and philosophical issues with the introduction of such a scheme. Significantly, a UBI scheme would involve a shift from the Beveridge principle of national insurance based on contributions and the sharing of risk to a system of income as of right. As the New Economics Foundation has argued, a UBI is ‘an individualised measure, not a collective one, focusing resources on providing everyone with an income at all times rather than on pooled risk-sharing mechanisms which provide help for everyone when they need it’.¹⁵

The national insurance principle has served Britain well for more than half a century, but has been steadily eroded. In many ways, the Beveridge system of social insurance – designed 70 years ago for an era of full, and mostly male, long term employment – has failed to keep pace with wider economic and social change, and especially the ongoing upheaval in labour markets and the rise of flexible working patterns. It is much less well suited to an era when growing numbers of the workforce move in and out of the labour force and between jobs, at increasingly rapid rates, throughout their lives.

The cost of the social security system also greatly outweighs the revenue from National Insurance contributions (NICs). Over time, there has been a substantial shift away from the founding post-war principle of a universal, contributory system, in which benefits were treated as an entitlement, with receipt dependent on circumstances (bringing up children, being unemployed, disabled or elderly) not on an assessment of financial need, towards a system based on extensive means testing. In part because of these failings, the current social security system enjoys a declining level of public trust.

But because a flat-rate payment, like a UBI, makes no allowance for those with additional needs, some suggest there is an element of rough justice at work. Part of the reason that the present system is complex is that it attempts to deal with variations in personal circumstances, which an over simple system finds it tough to deal with. To tackle this, a UBI either has to be very generous to deal with these extra needs (which pushes up the cost) or some types of means testing would need to stay, even if it undermined the benefits of simplicity. For example, a feasible UBI system would need to be supplemented with, at least, the continuation of disability benefits and additional help to cope with high and variable essential living costs, especially housing and childcare.¹⁶ Our model shows this is possible.

Some argue that the public might resent an end to work conditionality, with all citizens being given equal support, irrespective of their contributions to society or work ethic, and that in a universal system money would go unnecessarily to the richest in society. There is also the question of the impact on the incentive to work. Would a UBI help to create a ‘money-for-nothing’ culture, with some of the workforce opting either out of work or to work less? While critics argue that work would be discouraged, supporters claim that a UBI would act as an encouragement to enter paid employment – by reducing the impact of the poverty trap, and reducing the risk of losing benefit entitlement – while also giving more choice over the way we organise our lives, including through work.

The evidence from experiments with UBI schemes suggests, in fact, that the number dropping out of the labour force is likely to be small and could have knock-on social and economic benefits. In the 1970s, there were four temporary trials with local negative income tax schemes in the USA, and one in Canada called Mincome. Analyses of the experiments found a modest decline in labour supply. There was a small level of drop-out among primary earners (of the order of 5%) and higher among secondary earners (notably young mothers, teenagers in education and those about to retire), and some workers took longer between jobs.¹⁷ But the impact on families, communities and self-development through training and well-being have not been measured but could be considerable.

In addition, very limited and small-scale UBI schemes have been piloted in Namibia and India. The findings from the Namibia experiment are that the payment did not discourage recipients from working. In India, positive results were found in nutrition, health, education, housing and infrastructure, and economic activity. There was an improvement in access to medical treatment, while school attendance in the cash transfer villages rose sharply.¹⁸

While the impact of a pilot scheme in poor countries may be a limited guide to what would happen in richer countries, these experiments suggest that a UBI leads to a rise in income-earning work, even among these impoverished communities, with women gaining more than men. Economic activity increases, in large part because the receipt of the UBI reduces the risk for individuals starting their own enterprises.¹⁹ The pilot schemes to be introduced in Canada, Finland, the Netherlands and France will provide more evidence for testing the dynamic effects, including on work incentives.

The debate around UBI also has to address the arguments of pro-market advocates and their ‘here is your money – now go and fight it out with everyone’ approach. These advocates support a basic income in part because it encourages greater individual freedom and less state intrusion, and would see its introduction as an opportunity to sweep away a range of other forms of social protection. Some Silicon Valley enthusiasts see it as a route to trimming back the role of public services.²⁰ Yet socially provided services, such as education, health and long term care, are essential precisely because they are offered in the interests of citizens, and can help create further platforms for a more equal and just society. A UBI scheme should be seen as a supplement to wider public provision of services and not as a substitute. A continuing and strong role for the public provision of key public services and other forms of state intervention including a generous living wage remains essential.

A move to a UBI would be both a small step and a big leap. At one level, as the figures below show, it is affordable as an interim step. A reasonable amount could be paid to every adult now as a stepping stone to a more generous scheme later. But adopting the principles underpinning a basic income also has much wider implications, including the challenging of current social values. It encourages a society which allows greater freedom, and builds self-respect, in which all lifestyle choices are equally valued, and people are not judged by such decisions. Social security would move from today’s punitive stance, which

only values work and too often assumes the worst in people, to providing the means for choices around work, innovation, co-operation and leisure. While the current punitive model starts by believing the worst in people, that they are lazy and feckless, a UBI is based on a belief in the best of people, that they want to and can contribute in a huge variety of ways, and will flourish into so much more than worker ants and turbo-consumers.

‘...a basic income ... encourages a society which allows greater freedom, and builds self-respect, in which all lifestyle choices are equally valued, and people are not judged by such decisions. Social security would move from today’s punitive stance, which only values work and too often assumes the worst in people, to providing the means for choices around work, innovation, co-operation and leisure.’

3. A feasible universal basic income now

Of course, many practical issues remain. This report examines the desirability of a UBI, but also attempts to match it to feasibility. So, at what rate should weekly payments be set? Could a scheme be phased in over time, starting with a low weekly payment? How much would such a scheme cost, and what offsetting savings would accrue?

As a UBI scheme would aim to replace a range of current benefits, is it possible to ensure that it could be introduced without unacceptable losses to households receiving such benefits? With such a scheme involving big changes in people's individual incomes, who would win and who would lose?

Is it possible to set the payment at a level that provides enough for an acceptable standard of living? Or would a UBI only be able to meet a portion of basic living costs, as with Child Benefit at the moment? If the latter, some additional means-tested support would need to be preserved, thus retaining some of the complexities of the existing system.

The big issue with a generous UBI is that the gross cost would be high, but there would be substantial offsetting savings in compensation. These would arise from the withdrawal of, or lesser reliance on, a range of existing means-tested and contributory benefits, from compensatory tax changes, and from savings in administration on processing claims, policing benefit claimants and assessing eligibility.²¹ Indeed, a UBI involves, in essence, the integration and rationalisation into a single scheme of the tax, National Insurance and benefit systems, which currently operate quite separately.

So just how practical would it be to provide a basic income to everyone in the UK? There are many possible varieties of scheme, depending on different configurations of the key variables:

- the payment levels applied across different age groups
- accompanying changes to the existing tax and National Insurance payment systems
- the number of existing means-tested benefits that are withdrawn.

In the research for this paper, we have undertaken five simulations, based on two particular types of scheme:

- three different variants of a 'full UBI scheme', which replaces most means-tested benefits²²
- two variants of a 'modified scheme', which leaves existing means-tested benefits in place; this model could be seen as a first step towards the implementation of a full or near-full scheme.

What is essential is that all the schemes modelled are real UBIs in that they are paid to everyone, without condition, and cannot be withdrawn. The amount paid is obviously crucial but can be scaled up. In each case, the schemes are evaluated on:

- the net cost (equal to the cost of the UBI payments *net* of the savings from the abolition of, or lower reliance on, some means-tested benefits, and net of the revenue-raising changes to income tax and/or NICs)
- the number and pattern of gainers and losers
- the distributional effects (by household income decile and benefit unit type)
- the impact on poverty for different groups (children, working-age adults, pensioners)
- the impact on inequality (as measured by the Gini coefficient, the internationally recognized measure of inequality).

The results are compared with the current tax and benefit system applying in 2015/16. Each scheme leads to a different pattern of winners and losers and different overall net costs. The schemes tested would also allow savings in administrative costs, significant for the full schemes, smaller for 'modified schemes', but these have not been included in the calculations of the net costs.

The simulations – using the Landman Economics tax-benefit model – calculate net incomes for each benefit unit²³ in the UK Family Resources Survey data under the current (2015/16) tax-benefit system and under each of the five schemes that we model. As explained in more detail in appendix A, the main limitation of the modelling is that it is *static*: it assumes that the UBI has no impact on each individual's labour market behaviour. In practice this assumption is unlikely to hold, especially over time, as the UBI may alter the pattern of work incentives and the number of hours worked, and some individuals may adjust their labour supply in response to the reform. However, the effects of a reform to the tax-benefit system of the magnitude of UBI are hard to predict *a priori*, and are difficult to model convincingly, so we have assumed that behaviour is unaltered in the modelling conducted for this report.²⁴

There have already been several studies of the impact and cost of a UBI scheme using different formulations of variables. In the case of similar models, these produce broadly similar results to the Compass and Joseph Rowntree Foundation simulations, though with significant costing differences, and these are discussed in appendix C.

The detailed results for the three full schemes are outlined in appendix B. These show that while it is possible to design a full scheme which is progressive – with poorer households gaining on average and richer households losing – there are two key issues with such a scheme: the question of cost, and the finding that despite a gain on average, there would be a large number of losers at the lower end of the distribution in all three schemes. As a result of these losses, all the schemes lead to sharp rises in relative child poverty.

These problems suggest that a full scheme structured in these ways is not feasible in the current circumstances. There would be too many losers among the poorest, and despite a rise in the basic rate of income tax, there would still be significant net costs.

AN ALTERNATIVE MODIFIED SCHEME

Despite the reservations outlined above about the three full schemes (appendix B), the introduction of a UBI scheme is not infeasible. An alternative approach would be to adopt a modified scheme, paying a lower rate of UBI, but leaving in place the current means-tested benefits system and reducing households' dependence on means testing by taking into account their citizen's payment when calculating benefits.

Table 1 presents examples of two modified UBI schemes. The rates of UBI have been chosen here to reach a compromise between the affordability of the schemes and a rate of payment that is big enough to make a non-trivial impact on the income

distribution. In both cases, the personal allowance for income tax is abolished. Tax and National Insurance increases have been chosen so as to meet most of the additional cost of the UBI.

SCHEME 1

Scheme 1 pays a lower rate for adults and children than the full schemes examined in appendix B, but retains all means-tested and non-means-tested benefits (including the State Pension), except for Child Benefit (which would be abolished). The numbers claiming such benefits would fall, but an element of means testing would remain. This would be a hybrid system, which would greatly increase the level of universality via the flat-rate payments, and reduce the extent of means testing. It would be close to revenue neutral – with a net annual cost of £0.7bn – but would still require an increase in the standard rate of tax to 23p.

SCHEME 2

In scheme 2 all weekly payments are £10 higher than those in scheme 1, and tax rates are increased by 2p in the pound to 25p, 45p and 50p respectively. The net cost rises to just over £8bn.

Table 1 Benefit levels, benefits and tax rates for the two modified UBI schemes

	Scheme 1	Scheme 2
Weekly payment levels	<ul style="list-style-type: none"> • Pensioners: £41 • Other adults over 25: £61 • Adults under 25: £51 • Children: £49 	<ul style="list-style-type: none"> • Pensioners: £51 • Other adults over 25: £71 • Adults under 25: £61 • Children: £59
Benefits and tax credits	<ul style="list-style-type: none"> • Keeps existing means-tested and non-means-tested benefits • UBI is taken into account as income when calculating means-tested benefits • Child Benefit is replaced by UBI • State Pension is maintained (UBI paid on top of it) 	As scheme 1
Income tax: personal allowance	Abolished	Abolished
Income tax: rates	<ul style="list-style-type: none"> • Basic: 23% • Higher: 43% • Top: 48% 	<ul style="list-style-type: none"> • Basic: 25% • Higher: 45% • Top: 50%
Employee NICs	Lower earnings limit reduced to zero; NICs levied at 12% on all earnings	As scheme 1
Cost breakdown		
Gross annual cost of implementing UBI	£176.9bn	£209.5bn
<i>minus</i> : savings from reduced payments of other benefits and tax credits	£36.1bn	£40.7bn
<i>minus</i> : increased income tax and NIC receipts	£140.2bn	£160.6bn
<i>equals</i> : net cost	£0.7bn	£8.2bn

Figure 1 Distributional impact by income decile (percentage change in income) for the two modified UBI schemes

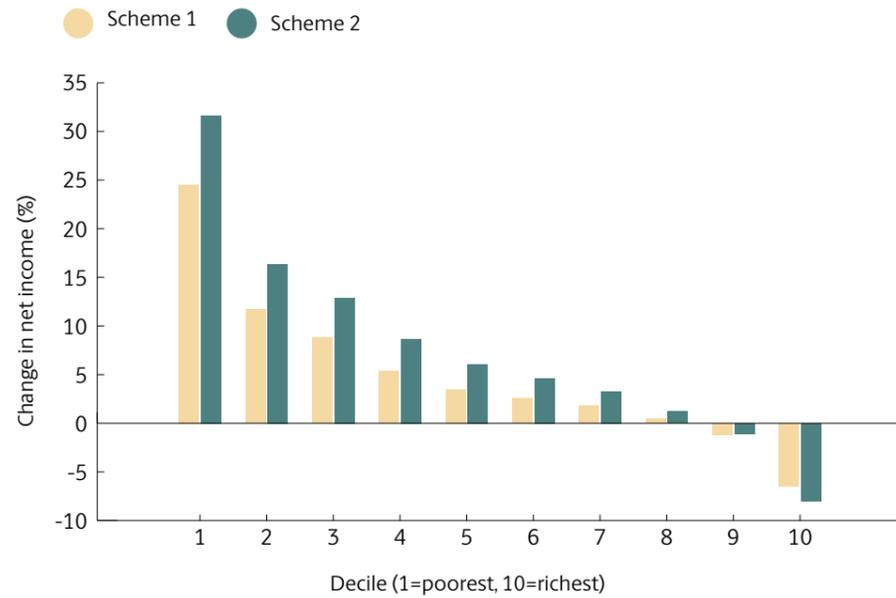
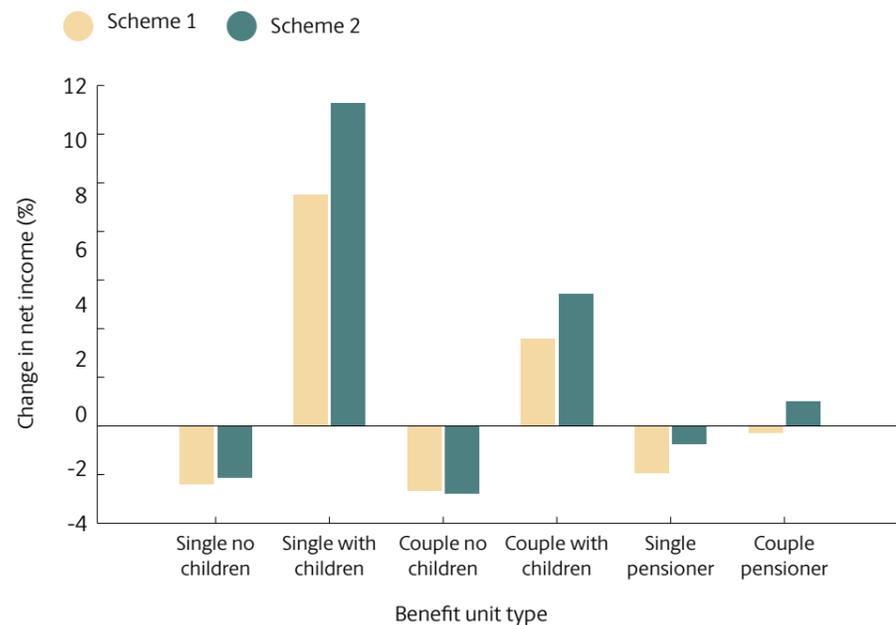


Figure 1 shows that the overall impact of each modified scheme is progressive: those in the bottom three deciles enjoy an increase in average income while those in the top two deciles experience a fall. Unlike the full schemes, there is a more consistent pattern of gainers and losers, with those in deciles 1–4 doing better than those in deciles 5–7. Here the proportionate gains fall consistently as we go up the income scale and become negative at decile 9.

Figure 2 Distributional impact by benefit unit type (percentage change in income) for the two modified UBI schemes



Modified UBI schemes 1 and 2 are both a significant improvement over the three full schemes when comparing winners and losers and the cost of implementation. Both are strongly redistributive from rich to poor, and scheme 2 is an improvement on scheme 1 in several ways. It is more progressive, offering a larger percentage rise in average incomes for the poorest than scheme 1 (see figure 1). As shown in table 2, there are relatively few losers (and fewer than in scheme 1) among the poorest households; in the lowest decile, 0.3% lose more than a fifth and 1.3% lose 5–20% compared with the current system.

Table 2 Gains and losses, changes in poverty and inequality in the two modified UBI schemes

	Scheme 1	Scheme 2
Decile 1 (poorest)		
Households losing more than 20%	0.3%	0.3%
Households losing 5–20%	1.6%	1.3%
Households gaining over 5%	65.0%	72.8%
Decile 2		
Households losing more than 20%	1.2%	0.7%
Households losing 5–20%	5.8%	2.7%
Households gaining over 5%	63.8%	75.6%
Impact on poverty/inequality		
Change in child poverty, percentage points (relative, before housing costs) Base: 16.4%	Falls 6.3 pp to 10.1%	Falls 7.3 pp to 9.1%
Change in working-age adult poverty, percentage points Base: 13.9%	Falls 1.8 pp to 12.2%	Falls 2.0 pp to 12.0%
Change in pensioner poverty, percentage points Base: 14.9%	Falls 0.3 pp to 14.6%	Falls 0.8 pp to 14.1%
Change in inequality (Gini) Base: 0.331	Falls 0.026 pp to 0.305	Falls 0.035 pp to 0.297
Percentage fall in number of households claiming Income Support, income-related Jobseeker's Allowance, Employment and Support Allowance or tax credits	12.4%	19.5%

These modified schemes would still require an increase in the basic rate of tax, to 23% and 25% respectively, the abolition of the personal allowance, and the extension of National Insurance payments (and even then, scheme 2 has a net cost of £8.2bn on top of this). Scheme 1 reduces child poverty by 38% and scheme 2 by 45%; there are also more modest falls in poverty for working-age adults and pensioners. In both schemes there is a fall in the Gini coefficient, with a slightly larger fall in scheme 2.

Scheme 2 is the nearest to a workable option of the five schemes tested. It has a number of strengths compared with the existing system:

- Some 60% of those in the poorest fifth gain more than 20%.
- It reduces the level of means testing. The number of families claiming means-tested benefits, including tax credits, falls by almost a fifth compared with the current system while those still on them would receive less help in this way. This would make low-income households less

Note: poverty is measured as the proportion of children, working-age adults or pensioners in households falling below 60% of median net household income, before housing costs.

- dependent on means testing than under the present system.
- It has very few losers among the poorest third, while the redistribution inherent to the scheme is paid for by those in the top fifth. Eliminating losers altogether would require higher payment rates, which would increase the cost.
- It reduces the level of child poverty by almost a half.
- It reduces poverty for working-age adults by around one-sixth, and also achieves a small reduction in pensioner poverty.
- It achieves a modest reduction in inequality.

The impact of the modified schemes is the product of two key changes: the payment of flat-rate benefits to all, and changes in the tax and NIC system. In effect, two existing but separate systems are being merged into one. The personal tax allowance (which is of no benefit to those with earnings below the tax threshold) is being replaced with a UBI payment. Marginal income tax rates are increased, and the National Insurance lower earnings limit is abolished and the rate of employee NICs increased to 12% across the whole earnings scale, effectively abolishing the upper earnings limit. In addition, a conditional benefit system is being made unconditional, thus reducing the significant and growing uncertainty present in the existing system.

The overall impact of the merger in modified scheme 2 is a more progressive and integrated tax-benefit system, one that leads to a reduction in poverty and inequality. The effect of the

payments is to greatly strengthen the universal element in the benefit system, while shifting more of the role of means testing onto the tax system. To a large extent, the tax changes are there not just to finance the cost of the flat-rate payments, but to build a more progressive overall system.²⁵

Although there are some losers, the results in this paper are based on a static analysis, assuming no behavioural effects in response to the introduction of UBI and the tax changes. In practice, there will be dynamic behavioural effects, including on employment. Moreover, the positive effects of the scheme could be reinforced by other labour market changes, including rises in the level of the national minimum wage and attempts to raise the number receiving the national living wage. An upward shift in the wage floor over time would further reduce reliance on means-tested support.

Such a scheme would be a hybrid. Although it would fall short of an ideal UBI scheme and retains some of the complexity of the existing system, it would contain a genuine unconditional income and would deliver many of the benefits of an ideal scheme. It could be implemented quickly.²⁶ Such a scheme could be seen as a starting point to more fundamental change and could be improved gradually with the payment of more generous rates, thereby moving towards a full scheme over time.

Of course, a universal scheme cannot deal with variations in the cost of meeting essential needs. This is especially true of child care, disability and housing costs. Under the current system, working parents on low earnings in receipt of Working Tax Credit are also entitled to an additional child care element to help pay for the costs of registered child care. The amount of financial assistance depends on income, childcare costs, the number of children and family circumstances.

In the simulations for the modified schemes above, most families would continue to receive Working Tax Credit and child care support, but a small proportion of families would lose both. This is accounted for in the estimates of the losses presented. Nevertheless, as more families would come off means-tested support once there was movement towards a full scheme over time, some new, separate, arrangements would need to be put in place to handle the child care costs that arise from parental employment.

One option would be to fund universal free childcare through the tax system. Recent calculations by Jerome De Henau of the Open University suggest that a system of universal childcare for all children between 6 months and 5 years of age, free at the point of use, would have a net cost of between £4bn and £14bn to the Exchequer depending on the level of wages assumed for childcare workers.²⁷ These estimates take into account increased tax revenue and lower (means-tested) benefit payments from additional employment, which partly offset the gross costs of providing free childcare. This would be additional to the £8bn costs of our preferred modified UBI scheme.

Another important question that needs to be addressed is how to meet the extra costs of disability. One option is to maintain additional benefits for disabled people, which would run alongside the UBI. This is the approach taken in schemes 1 and 2, which retain the Personal Independence Payment and Employment and Support Allowance.²⁸

A third area of additional costs not covered by the UBI

schemes examined here is housing. Because of the high levels of rent, and widespread variations in such levels, and the current structure of the housing market in the UK, some kind of means-tested support (whether along the lines of the current Housing Benefit or an alternative system) will be inevitable, at least in the short to medium term. Ultimately, reducing reliance on means-tested housing support will depend on housing policies that would bring current costs down.

4. Paying for a universal basic income

Scheme 2 has a net cost of £8.2bn per year, just under 0.5% of GDP. This is over and above the increases in income tax and NICs incorporated into the modelling. These embedded tax changes are an integral part of the UBI schemes as we have modelled them, and are in part designed to ensure that the benefits of the scheme are concentrated among those on the lowest incomes.

In the contest of total public spending, £8.2bn is a modest sum and could be considered a small price for such a significant reduction in poverty and inequality, while reaping many of the social benefits of introducing a full UBI, to which it would be a key stepping stone. Indeed, delivering a 45% reduction in child poverty at a net cost of some £8bn is a highly effective way of tackling the growing problem of poverty. It would reduce the level of child poverty on one widely used measure (those in households falling below 60% of median net household income, before housing costs) to less than 10%. This is a level that has not been achieved since 1961, the earliest year for which trend data is available.²⁹

The cost is well within the range of normal fiscal adjustment and compared with the potential revenue from other tax changes. For example, the full cost to the Exchequer of the provision of tax relief on pension contributions is £34.3bn (and around £10bn if such relief was restricted to the standard rate of income tax).³⁰ It is also modest when compared with the cost of other recent tax changes. As the Royal Society of Arts has pointed out, government tax cuts during 2015/16 – an increase in the personal allowance, a cut in corporation tax rate to 20% and cuts in fuel duties – cost an additional £19.5bn. All of these cuts have been made in a period of fiscal austerity.³¹

Of course the cost would increase if the payment levels were raised to try and cut the small proportion of losers to zero and/or the increase in income tax rates is considered to be too high politically. Raising payment levels would also further reduce the number receiving means-tested benefits. Table 3 shows the impact of increasing the weekly payment level by £5 and increasing tax rates. Raising the payment levels by a further £5 per head would cost just over £13bn.

It is reasonable to assume that a scheme that eliminated,

or nearly eliminated, losers among the poorest 30–40% would have an annual cost in the region of an additional £15–20bn – between 0.8% and 1.1% of GDP. So how could extra money be found to finance such a scheme – either the £8bn cost of scheme 2 or a sum of up to £20bn for a slightly more generous scheme? There are various possibilities.

The extra revenue could come from raising some existing tax rates or by imposing new taxes.³² Scheme 2 already embodies tax increases: an increase in existing income tax rates – to 25p on basic rate, 45p on the higher rate and a new 50p top rate; the abolition of the personal allowance; and the extension of NICs.

Table 3 The fiscal impact of changing individual variables in modified scheme 2

Extra annual cost of £5 increase in weekly payment level	Net annual cost
Pensioners	£2.3bn
Adults over 25	£6.4bn
Adults under 25	£1.3bn
Children	£3.3bn
Total for all persons	£13.3bn
Extra revenue options	Net annual revenue raised
Increase basic rate of income tax by 1p in the pound	£8.5bn
Increase higher and additional rates of income tax by 1p in the pound	£1.9bn
Increase income tax by 1p across whole income scale	£10.4bn

One possibility for obtaining additional tax revenue might be extra taxation on wealth, including higher taxation on inheritance and capital gains and/or the introduction of a land value tax.³³ This approach would help to stem – and reverse – the long term trend in taxation away from wealth and assets. Today, only 7% of all tax revenue comes from property and wealth taxes (council tax, stamp duty, inheritance tax, capital gains tax and stamp duty on shares), while state fiscal strategy has been to reduce tax rates on wealth, including on capital gains.³⁴

A TARGETED UBI SOCIAL WEALTH FUND

An alternative, and more fundamental and enduring approach, would be to generate an independent source of funding outside the general tax pool, linked directly to the payment of a UBI. This could be achieved by establishing a targeted UBI social wealth fund, in which the returns from investment in the fund contributed to the annual cost of UBI payments.

Social wealth funds are a potentially powerful tool in the progressive policy armoury. They are collectively held financial funds, publicly owned, created from the pooling of resources and used for the wider social benefit of society. Such funds have been widely used in other countries and would ensure that a higher proportion of the national wealth is held in common and used for public benefit and not for the interests of the few. They are a way of ensuring that at least part of the benefits of some economic activity are pooled and shared among all citizens and across generations.³⁵

There is already an example of a fund dedicated to a citizen's payment, one operating in Alaska since 1982. Here, the returns from a sovereign wealth fund, funded by oil revenue, are used to pay an annual citizen's dividend. There is an important principle involved in such an arrangement: that citizens are the proper owners of the environment and have the right to share equally in its benefits. The benefits from a common asset should not be hived off to a small number of private owners. Thus some of the economic rent relating to oil extraction has been used to benefit the whole community.

Over 50 countries have created sovereign wealth funds, most since the millennium, with total assets approaching \$7 trillion.³⁶ Such a fund could have been created in the UK. Yet, instead of using part of the gain from the bonanza of North Sea oil for the future by investing some of the tax revenues raised, British governments have chosen to spend the proceeds in tax cuts, current consumption and allowing the exchange rate to rise.

Although the UK has already spent most of its oil revenue, there is no reason why a social wealth fund could not be established using other sources of income, for example the dividends from other assets such as natural resources, minerals, urban land and the electromagnetic spectrum, and/or parts of the financial system. The occasional one-off taxes on windfall profits, such as those levied in the past on banks, energy companies and oil producers, could also be paid into such a dedicated fund, possibly in the form of shares. As in Alaska, such a fund could be allowed to grow over time, with part of the proceeds from its management paid back into the fund, and part used each year to partially fund a UBI scheme. Over time, such a fund could grow significantly, sufficient to help top up any shortfall necessary to pay for a workable UBI scheme (and relieving some of the cost that

would otherwise be paid for by higher rates of income tax).³⁷

An alternative and more radical way of paying for a dedicated UBI fund would be to dilute the heavy concentration of capital ownership, achieved through a small annual charge on the owners of shares (and additional to the existing 0.5% stamp duty on share purchases). The distinguished economist and Nobel Laureate James Meade proposed a similar idea in his 1964 book *Efficiency, Equality and the Ownership of Property*, as a direct way of tackling the risk of ever-growing inequality. Meade proposed this levy as a way of securing a more equal distribution of private ownership, by raising the level of social ownership of capital. Importantly, he linked this scheme to providing the finance to 'pay out an equal social dividend to each citizen'.³⁸

What Meade had in mind was a more evenly based 'property-owning democracy', though his was a very different vision from Margaret Thatcher's later call for wider shared ownership and mass private home ownership financed by a mix of debt and the sale of public assets. Such an idea was widely debated and discussed in the UK in the 1970s and 1980s, by leading figures in the Liberal and Labour parties, among others, and later the SDP.³⁹ Meade favoured measures that would break up large concentrations of wealth and secure a much wider distribution of the ownership of private property, on the grounds that the benefits from capital ownership ought to be widely shared. He argued that this should be achieved not by the state buying up private firms and then managing them, but by society establishing a growing stake in capital through share dilution. Meade continued to press this argument long after his book was published. Such a levy on share ownership would be paid into a collectively owned social wealth fund, with the returns on the fund used to pay a citizen's dividend.⁴⁰

So, how much revenue could be raised by such a levy today? The total value of the shares held in the UK's top 100 companies amounts to £1.7 trillion pounds (as at mid-January 2015). The value for all registered companies is higher at £2.15 trillion. A 0.5% and 1% annual levy just on the share ownership held in the top 100 companies would thus raise over £8bn and £16bn annually. Since a majority of shares are now owned overseas, more than half of these sums would be a charge on overseas owners.⁴¹

Implementing such an approach would make it possible to fund part of the cost of a UBI from the gains to capital rather than from additional taxes on labour income. Moreover, a key additional advantage of the use of a social wealth fund financed by capital dilution is that it would be one way of dealing directly with the distributional issues surrounding the impact of new technology. It would help capture – for social benefit – some of the gains from productivity growth arising from new automation. As the distinguished American economist and Nobel Laureate Robert Solow has warned, under new automated systems, 'the wage will absorb only a small fraction of all that output. The rest will be imputed to capital... The ownership of capital will have to be democratized... (through) some form of universal dividend'.⁴²

The financial gains from the application of new technology in publicly quoted companies would be at least partially mirrored in the share price and a levy would reflect such gains.

‘Social wealth funds are a potentially powerful tool in the progressive policy armoury... a key additional advantage of the use of a social wealth fund financed by capital dilution is that it would be one way of dealing directly with the distributional issues surrounding the impact of new technology. It would help capture – for social benefit – some of the gains from productivity growth arising from new automation.’

This would be one way of collectivising some of the gains from rising productivity, and ensuring that they were shared with all citizens and across generations. Moreover, as the technological revolution kicks in and productivity rises, it will be right to tax the profits of companies that have both displaced jobs and used public investment in science and technology to develop their services and products. Without some attempt to capture at least part of the gain, the risk is that the gains will accrue disproportionately to business owners and their managers, fuelling an ever-increasing rise in inequality.

A UBI funded in part through such a social wealth fund would also have an important macro-economic benefit, one which would contribute to better economic resilience. One of the effects of the steady fall in the share of national output going in wages in favour of profits since the late 1970s has been the long term erosion of economic demand. The evidence is that demand deficiency was a contributing factor to the 2008 crisis and the slowness of the recovery, and has contributed to continued instability.⁴³ The Geneva-based International Labour Organization, for example, has shown that nearly all large economies – including the UK and the USA – are 'wage-led' not 'profit-led': they experience slower growth when an excessive share of output is colonised by profits, with less going in wages.⁴⁴

Technological advance is likely to intensify this problem, as the wage gains from automation are unlikely to match the gains to productivity, with capital grabbing a disproportionate share of the benefits, contributing to a drag on economic growth. As a writer in the *Los Angeles Times* put it, echoing the earlier warning by Robert Solow, 'the relentless drive by capital to cut costs and boost profits is threatening to destroy the wellspring of economic growth that capitalism requires... when there are no jobs for humans, there will be no consumers with the disposable income to buy the products being so efficiently produced by robots'.⁴⁵

A regular citizen's payment financed, in effect, by lowering the return to capital would help overcome some of this demand deficiency. It would also have an additional benefit. It would facilitate the use of quantitative easing – the mass printing of money – for cash hand-outs as a more direct way of tackling recessions, as advocated by some commentators.⁴⁶ In this way a one-off higher payment rate (a form of 'helicopter drop' designed to inject a cash input directly into the economy) could be paid, thus providing an immediate boost to consumer demand.

5. The lessons from these UBI models and next steps

One lesson from these simulations and other studies is that, in the context of existing tax and benefit arrangements, it is not possible to design a scheme that is revenue neutral, pays a decent sum and withdraws most means-tested benefits without significant numbers of losers. This is because the current benefits system, partly because of its complexity and reliance on means testing, is able to pay large sums to some groups. While the current system is buckling under the pressure of its own complexity, a simpler, flat-rate UBI scheme cannot compensate for the withdrawal of both personal tax allowance and most means-tested benefits without becoming expensive.

However, a modified scheme that paid a lower rate and retained existing means-tested benefits would be viable, though it would keep some of the complexities of the existing system. Modified scheme 2, as described above, would have very few losers among the poorest 40%. The scheme would be progressive, reduce inequality and lead to a significant cut in child poverty. In particular, there would be fewer households on means-tested benefits, and those still on them would receive less help in this way. It would have a net cost over and above the integrated changes in tax and NICs of some £8bn a year. This additional sum would have to be met in the ways suggested in chapter 4.

Such a scheme would be straightforward to administer, as it leaves much of the existing system in place. It could be introduced in one go or phased in over time. There are two possible approaches to phasing: by demographic group, or with initial modest payments which are increased over time.

First, the scheme could be phased in by demographic group, for example starting with pensioners or children. The new State Pension could be turned into a citizen's pension, ultimately eliminating the need for Pension Credit. Similarly, a much higher level of Child Benefit could be introduced: a basic income scheme for children. Malcolm Torry of the Citizen's Income Trust has explored the latter option and finds that a £56.80 weekly child payment would require an increase in the standard rate of tax to 24.5% and a four percentage point increase in National Insurance payments above the threshold.⁴⁷ Although there would be some losers, they would all be among higher income groups. There is a strong case for raising the level of Child Benefit substantially as a particularly effective way of reducing poverty and inequality, and being a first step in the introduction of a UBI. The leading economist Tony Atkinson, for example, has argued that 'a universal basic income for children' should be introduced across the European Union.⁴⁸ Instead of this, the value of Child Benefit in the UK has been falling, set to lose a quarter of its real value between 2010 and 2020.

Second, such a scheme could start with a modest level of payment for all, which could be raised over time. This would have the side-effect of a gradual phasing out of reliance on means testing. If a targeted UBI social wealth fund were established, as suggested, its growth over time could be used to fund ongoing rises in payment levels as part of a process of moving towards implementing a full or near-full scheme.

A UBI scheme would challenge traditional approaches to economic and social policy and has many merits. It would deal with a number of weaknesses with the existing social security

model and provide a much firmer base of income security in an increasingly fragile economic and social environment.

The post-war social security model developed in very specific circumstances and was designed to fit a particular sort of economy as a system of insurance against a range of economic risks. The Beveridge system worked well in the post-war era when those risks were better controlled. The goal of full employment (for men) was largely met, jobs were much more secure and often for life, wages were more generous relative to contemporary needs than has been true in more recent years, and housing costs were much lower as a ratio of net income.

Today the risk of unemployment is higher, low pay and work insecurity has spread, and relative housing costs have risen sharply. These trends have greatly raised the risk of poverty and the demands on the social security and wider welfare system. Partly in consequence the present system has become more complex and poorly understood. It has also become increasingly vulnerable politically, with the degree of social protection greatly weakened in recent years for those of working age. By guaranteeing an income floor for all, a UBI would help tackle the fragility of the modern labour market. It would also help to lessen the potential threat to livelihoods from accelerated automation, a trend that makes the case for UBI more compelling.

The principle of making payments to citizens as of right already exists in the present system. Child benefit is, in essence, a basic income for children, albeit at a modest rate, paid without a test of means.⁴⁹ The new flat-rate pension system – introduced in April 2016 at £155.65 per week – bears some comparison with how a citizen's income could work, though pensioners with a low income will still be entitled to receive means-tested Pensioner Credit. Nevertheless, as suggested above, the new scheme could be adapted as a stepping stone to a full citizen's income for pensioners.

In this paper, we have only been able to present a limited number of options of how a UBI might work in practice. These present only a partial picture of the full range and implications of such schemes, and there are many issues that would benefit from further research. For example, additional simulations might examine:

- the cost and impact of a standalone citizen's pension
- the cost and impact of a standalone basic income for children
- the cost and impact of converting existing personal tax allowances into a small basic income, paid in full to all those in work and withdrawn from the higher paid through adjustments to the tax system;⁵⁰
- the separate impact of the two central elements of such schemes, the payment of flat-rate benefits and the changes in tax and NICs
- the potential stages in the transition from a modified towards a full scheme.

Ultimately, a real test of how such a scheme would work depends on the application of a proper, lengthy and adequately sized pilot with a control group. Some idea of the dynamic effects – including on the incentive to work, employment patterns, changes in participants' well-being and the reaction of employers – may be revealed by the pilots to be launched in

Canada and Europe. Nevertheless, these experiments will have their own limitations. For example, the Utrecht experiment is likely to be restricted to the unemployed, while the details of the Finnish scheme are, at the time of writing, unclear. It is certainly time for the UK to follow the lead taken by others and commit to its own pilot scheme.

The introduction of a UBI would involve a major transformation in the nature of social protection, in the extent of redistribution, the character of the tax system and the pattern of work incentives. Certainly such a scheme would need to secure public support before it could be implemented, and overcome opposition in some quarters. But all ideas for radical change, from the introduction of the NHS and the social security system itself to the minimum wage, have had to confront initial scepticism. With the existing income support system increasingly ill-equipped to deal with the complexity of the modern labour market, and the impact of the technological revolution coming so fast down the track, the idea of a UBI has already been gathering growing support in the UK. It is now time for a campaign to promote a much wider debate among the public and decision makers.

‘Some idea of the dynamic effects – including on the incentive to work, employment patterns, changes in participants’ well-being and the reaction of employers – may be revealed by the pilots to be launched in Canada and Europe. Nevertheless, these experiments will have their own limitations... It is certainly time for the UK to follow the lead taken by others and commit to its own pilot scheme.’



Appendices

Appendix A. The Landman Economics tax-benefit model

Since 2009, Landman Economics has maintained a micro-simulation model of the tax-benefit system. The model was originally developed for the Institute for Public Policy Research (and since 2011 the Resolution Foundation). All three organisations use the model to analyse the impact of tax and benefit reforms, and the model is also used by other organisations on a bespoke basis.⁵¹

Currently the tax-benefit model uses data from the Family Resources Survey to analyse the impact of direct taxes, benefits and tax credits, and the Living Costs and Food Survey to analyse the impact of indirect taxes. Note that the model can also use the Living Costs and Food Survey to model the impact of direct taxes, benefits and tax credits in the same manner as for the Family Resources Survey – this allows the impact of a package of direct and indirect taxes to be modelled on the same households, which is useful for looking at overall winners and losers from a set of reforms.

In the current project, because the introduction of a UBI (or at least the five options modelled in this paper) only involves changes to the direct taxes, benefits and tax credits parts of the system but does not involve indirect tax changes, we have only used the Family Resources Survey part of the model here.

The information in the Family Resources Survey allows payments of direct taxes and receipts of benefits and tax credits to be modelled with a reasonable degree of precision for each family in the surveys using either the current tax-benefit system in place at the moment, or an alternative system of the users' choice. For example, the user can look at what the impact of an increase in the income tax personal allowance would be. Using a 'base' system (often the actual current tax and benefit system, although the model can use any system as the base) and one or more 'reform' systems, the model can produce the following outputs:

- aggregate costings of each system (amount received by the Exchequer in direct taxes and NICs, and amount paid out in benefits and tax credits)
- distributional impacts of reform system compared with base system (e.g. change in incomes in cash terms and as a percentage of weekly income in the base system); the distributional effects can be broken down according to several different variables, for example:
 - income decile (ten equally sized groups of households or benefit units, from poorest to richest according to equivalised disposable income)
 - family type (single childless person, lone parent, couple without children, couple with children, single pensioner, couple pensioner)
 - number of children (none, one, two, three, four or more)
 - single adult and couples families by the numbers of earners (none or one for singles; none, one or two for couples)
 - housing tenure type; gendered households (male adults only, female adults only, male and female adults)
 - gendered earners (no earners, males earner(s) only, female earner(s) only, male and female earners)
 - region
- proportions of Exchequer savings and costs due to a particular reform or set of reforms paid for by or going to particular family types

- average impact of reforms on the household incomes of particular types of individuals, e.g. children, working-age adults and pensioners
- winners and losers from a particular reform or set of reforms (grouped according to size of cash gain or size of percentage gain)
- impact of reforms on overall inequality of disposable incomes (Gini coefficient)
- impact of reforms on household and child poverty rates (using various definitions, e.g. proportion of children below 60% of median income)
- changes in marginal deduction rates – the net gain to people in employment from an extra pound of earned income (which for many individuals depends on income tax and NIC rates as well as the taper rates on means-tested benefits and tax credits).

BEHAVIOURAL ASSUMPTIONS

The model produces distributional results on the assumption of there being *no behavioural change* between base and reform tax-benefit systems. In other words we assume that the gross income, employment status, hours of employment and consumption behaviour of each individual in the Family Resources Survey is the same under each of the UBI schemes analysed in the project. This is not a very realistic assumption – in reality we would expect individual behaviour to adjust in many cases in response to the introduction of a UBI. However, adding behavioural responses into a tax and benefit micro-simulation model introduces considerable additional complexity and would have been impractical for this project on both timing and costs grounds. Moreover, given that UBI is such a major reform to the tax-benefit system, the direction and size of these impacts would be very hard – perhaps impossible – to estimate in the absence of running a pilot scheme first to generate actual evidence on how people respond to UBI payments and the concurrent changes to the rest of the tax-benefit system.

Appendix B. A full UBI scheme

Table B1 outlines three separate variants of a full scheme, each based on a different mix of the key variables, and selected to illustrate the range of likely impact. The results for each give some sense of the possible range of options and associated costs. In each case, a number of current means-tested benefits are withdrawn. Specifically, Jobseeker's Allowance, Income Support and income-related Employment and Support Allowance are abolished. Working Tax Credit and Child Tax Credit are also abolished. But non-means-tested benefits (e.g. contributory Jobseeker's Allowance, contribution-related Employment and Support Allowance, Disability Living Allowance and Carer's Allowance) are retained. The state retirement pension is also abolished. The income tax personal allowance is retained in scheme full schemes 1 and scheme 2 but abolished in scheme 3. Housing Benefit and Council Tax Support are retained for all three schemes. Pension Credit and Child Benefit are retained for scheme 2 but not for schemes 1 and 3.

signed to raise substantial revenues so that the extra cost of the UBI – even after taking into account savings from the abolition of other parts of the social security system – is at least partially affordable. The tax changes also perform an additional role: they claw back some of the benefit of the flat-rate payments as incomes rise.

Table B1 Payment levels, benefits and tax rates for three full UBI schemes

	Scheme 1	Scheme 2	Scheme 3
Weekly payment levels	<ul style="list-style-type: none"> • Pensioners: £151.20 • Other adults (over 18): £73.10 • Children (under 18): £44.30 	<ul style="list-style-type: none"> • All adults over 18 including pensioners: £73.10 • Children: keep existing Child Benefit rate 	As scheme 1
Benefits and tax credits	<ul style="list-style-type: none"> • Abolishes all means-tested benefits and tax credits except Housing Benefit and Council Tax Support • Abolishes State Pension and Child Benefit 	As scheme 1 except that Pension Credit and Child Benefit are still paid	As scheme 1
Income tax: personal allowance	Maintained at £10,600	Maintained at £10,600	Abolished
Income tax: rates	<ul style="list-style-type: none"> • Basic: 30% • Higher: 50% • Top: 50% 	<ul style="list-style-type: none"> • Basic: 30% • Higher: 50% • Top: 50% 	As scheme 1
Employee NICs	Increased from 2% to 12% above upper earnings limit	Keeps existing system	As scheme 1
Net annual cost	£43bn	£35bn	Saving of £53bn

The UBI rates for pensioners, adults and children in these three schemes were chosen to reflect key parameters of the UK benefit system in place at the time of writing, as follows:

- The rate for adults below state pension age is set at £73.10 per week, which was the level of Jobseeker's Allowance for an adult (aged 25 and over) in April 2015.
- The rate for adults above state pension age is set equal to £151.20 per week in scheme 1, which was the minimum income guaranteed under Pension Credit in April 2015. In scheme 2, pensioners receive £73.10 per week but Pension Credit is retained.
- The rate for children in schemes 1 and 3 is set equal to £44.30 per week, which is around 60% of the rate for working-age adults. This reflects the relative weighting of (second and subsequent) adults and children in the Organisation for Economic Co-operation and Development (OECD) equivalence scales (used by the Department for Work and Pensions in its income distribution statistics to adjust net incomes to take account of family size). In scheme 2 Child Benefit is retained and this is effectively used as a (less generous) UBI for children.

Meanwhile, the tax increases chosen in each scheme are de-

THE IMPLICATION AND IMPACT OF THE THREE SCHEMES

Each of these schemes has a different impact and different implications.

Scheme 1 is a full UBI scheme with payment levels varying by age, with a higher rate for those over 65. There is an increase in the standard rate of tax to 30p in the pound and the higher and top rate are increased to 50p. The National Insurance ceiling is abolished so that all National Insurance payments above the lower earnings limit – which is retained – are set at 12%. The current income tax personal allowance is retained. This has the effect of increasing the net cost substantially. If the allowance is abolished (as in scheme 3), the net cost falls significantly, though this also increases the number of losers. The net cost of this scheme is £43bn per year, even after the rise in the basic rate of income tax to 30p and the rise in the higher and top rate.

Scheme 2 differs from scheme 1 in five respects: it introduces a single rate for all adults, lowers the weekly payment rate for pensioners to £73, applies the existing Child Benefit weekly rate (£20.70 for an only or eldest child, and £13.70 for other children), retains Pensioner Credit and leaves current NICs in place. The net cost falls to £35bn per year; the savings from the lower rates for pensioners and children are offset in part by lower revenue from NICs than for scheme 1.

Scheme 3 is identical to scheme 1 except that the personal allowance for income tax is abolished. As the value of the personal allowance for people earning less than £100,000 in 2015/16 is £10,600, applying income tax at 30% to all income between zero and £10,600 per year results in a huge increase in tax revenue of approximately £99bn. Around £3bn of this is offset by increased means-tested benefit payments, resulting in a net revenue gain to the Exchequer of around £54bn for this scheme (compared with a net cost of £43bn for scheme 1). The increase in the tax rates could be lowered as a result of this saving.

CONCERNS ABOUT IMPLEMENTING A FULL SCHEME

There are two key issues with implementing a full scheme. The first is the question of cost. Scheme 1 and scheme 2 cost £43bn and £35bn per annum respectively, even after a rise in the basic rate of income tax to 30p. Scheme 3, on the other hand, would save some £54bn. Second, there would be a large number of losers at the lower end of the distribution in all three schemes.

As figure B1 shows, the *overall impact* of each of these schemes is progressive in that those in the bottom decile enjoy a substantial increase in average income while those in the top decile experience a fall in average income. On the other hand, under schemes 1 and 2 those in the middle deciles (4 to 8) do better than those in deciles 2 and 3. As a result, middle-income groups are significant gainers from such a scheme and do better than those in deciles 2 and 3. This is because any additional withdrawals in taxation from their income are likely to be lower than the loss of benefits in the present system. As a result, such a move would improve the incentive to work and possibly raise public support for such a scheme.⁵² Under scheme 3, the first decile is the only income group that enjoys an average gain. Decile 2 does better than deciles 4–7, but decile 3 does worse.

Figure B1 Distributional impact by income decile (percentage change in income) for the three full UBI schemes

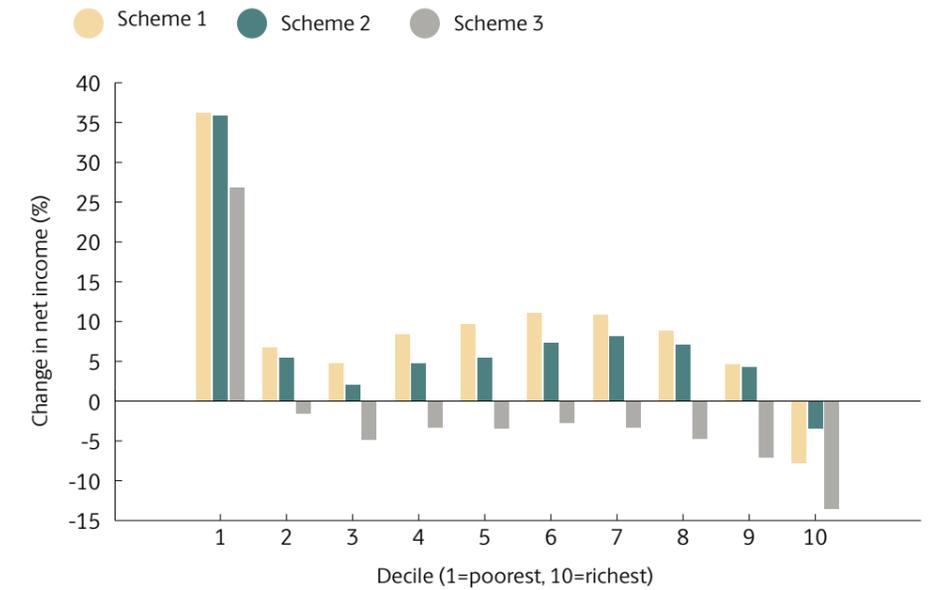
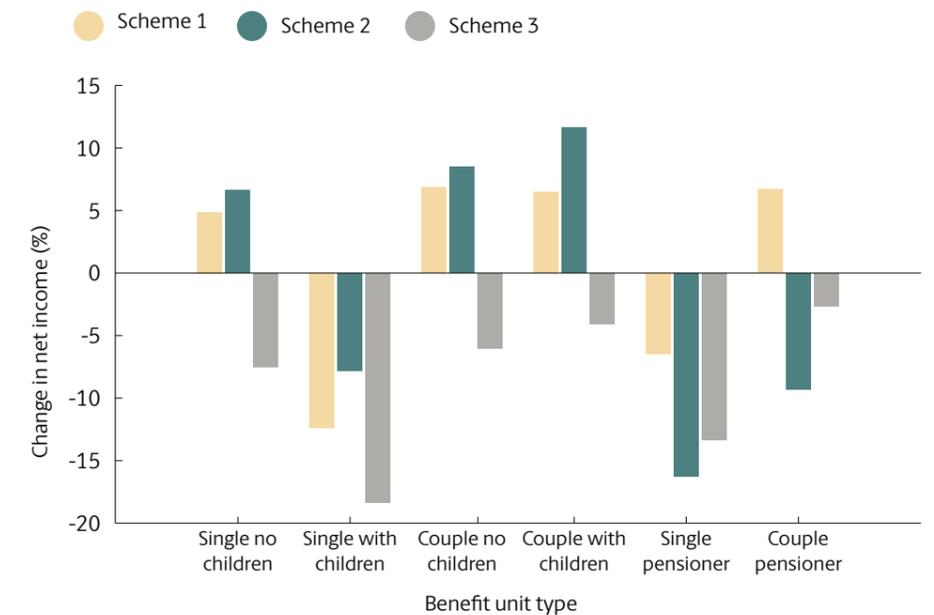


Figure B2 Distributional impact by benefit unit type (percentage change in income) for the three full UBI schemes



Because of these distributional effects, there are large variations in the pattern of gains and losses even within narrow income groups. The three schemes involve a large number of losers at the bottom end, even though large numbers of households gain in the bottom two deciles for schemes 1 and 2. Thus the proportion of households losing more than a fifth in the bottom decile stands at 18.2%, 16.7% and 23.0% respectively (table B2). There are also substantial numbers of losers in the second decile.

As a result of these losses, all the schemes lead to sharp rises

Table B2 Winners and losers and changes in poverty and inequality in the three full UBI schemes

	Scheme 1	Scheme 2	Scheme 3
Decile 1 (poorest)			
Proportion of households losing more than 20%	18.2%	16.7%	23.0%
Proportion of households losing 5–20%	11.0%	10.7%	13.1%
Proportion of households gaining over 5%	57.3%	50.9%	48.5%
Decile 2			
Proportion of households losing more than 20%	29.1%	39.9%	37.4%
Proportion of households losing 5–20%	4.9%	6.6%	12.6%
Proportion of households gaining over 5%	60.1%	45.4%	40.2%
Impact on poverty/inequality'			
Change in child poverty Base 16.4%	+10.4 pp	+5.8 pp	+8.0 pp
Change in working-age adult poverty Base 13.9%	+2.8 pp	+0.4 pp	+2.1 pp
Change in pensioner poverty Base 14.9%	+3.9 pp	+16.8 pp	+0.3 pp
Change in inequality (Gini)	-0.022 pp	-0.004 pp	-0.020 pp

in relative child poverty, for two main reasons. First, the rate paid per child is not enough to compensate for the loss of child tax credits. A higher child rate would reduce the number of losers but at extra cost. Second, the rate paid per adult is not enough to compensate for the loss of means-tested benefits and Working Tax Credit in some cases. This is especially true where benefit claimants are entitled to disability premium for Income Support or Working Tax Credit.

There are also modest increases in working-age adult poverty in each scheme, and increases in pensioner poverty (especially in scheme 2, where the State Pension is replaced with a much lower UBI payment, although Pension Credit is retained). On the other hand, there is a modest fall in inequality as measured by the Gini coefficient, a single summary measure of inequality.

Because of these problems a full scheme structured in these ways is not feasible in the current circumstances. There would be too many losers among the poorest, and despite a rise in the basic rate of income tax, there would still be a significant net cost to implement schemes 1 and 2.

Note: poverty is measured as the proportion of children, working-age adults or pensioners in households falling below 60% of median net household income, before housing costs.

Appendix C. Other basic income studies

There have been several other studies of the potential of introducing a basic income to everyone, notably the studies by Malcolm Torry for Citizen's Income Trust and the Royal Society of Arts. The results from the Compass simulations are broadly in line with these other studies, though with some differences in costings. Torry and colleagues have tested a number of schemes for the Citizen's Income Trust using the EUROMOD simulation model. As in this paper, they analysed the impact of implementing a full – 'all at once' scheme – that replaces most means-tested benefits (excluding only Housing Benefit, Council Tax Support and Pensioner Credit) – and a modified scheme (that retains existing means-tested benefits).

One simulation, for example, paid weekly benefits of £145 to pensioners, £71.70 to other adults and £56.80 per child. The scheme had a small net cost (of £1.8bn), but required an increase in the basic rate of income tax to 25p in the pound, an increase in the higher tax rate to 45p and the introduction of a top rate of 50p in the pound, an increase in the National Insurance rate above the current threshold from 2p to 12p in the pound, and a reduction of the lower earnings limit to zero. This has the effect of making NICs payable on all earned income at 12%. While the scheme would have been almost revenue neutral, it would have left 28% of households in the lowest decile worse off by more than a tenth.⁵³ (This is similar to the findings of the full schemes presented in appendix B.) This, as the study acknowledged, is much too high a level of loss and would not be politically feasible.

Torry also examined a modified UBI scheme – with the retention of means-tested benefits, which also had results broadly similar to those shown in chapter 3.⁵⁴

The Royal Society of Arts has also advocated a scheme similar to the full Citizen's Income Trust model with payments set at similar levels to the Torry scheme noted above: weekly payments of £142.70 (aged 65+), £71 (ages 25–65), £56.25 (ages 5–25) but with a higher child rate for those aged 0–4. The latter additions are aimed at reducing the number of losers associated with full schemes. It is estimated that the cost of such a scheme would be between £12.8bn and £16.5bn, though there would still be losers among those on lower incomes.⁵⁵

COMPARING THE LANDMAN ECONOMICS AND EUROMOD ESTIMATES OF THE COST OF A CITIZEN'S INCOME SCHEME

The Compass–Joseph Rowntree Foundation and Citizen's Income Trust studies have been conducted using different tax-benefit models. The former used the Landman Economics model, and the latter the EUROMOD tax-benefit micro-simulation model.⁵⁶ In the course of the research for this report we compared the results from some of Torry's EUROMOD simulations with our own results using the Landman Economics model. For example, we compared Torry's scheme B, a scheme

designed to be explicitly revenue neutral, and features of the reforms listed in table C1.⁵⁷

Table C1 Payment levels, benefits and tax rates for Torry scheme B

Weekly payment levels	<ul style="list-style-type: none"> • Pensioners: £30 • Other adults over 25: £50 • Adults under 25: £40 • Children: £20
Benefits and tax credits	<ul style="list-style-type: none"> • Keeps existing means-tested benefits • UBI taken into account as income when calculating means-tested benefits • Child Benefit and State Pension maintained (UBI paid in addition)
Income tax: personal allowance	Abolished
Income tax: rates	<ul style="list-style-type: none"> • Basic: 23% • Higher: 43% • Top: 48%
Employee NICs	Lower earnings limit reduced to zero; NICs levied at 12% on all earnings

Torry models his scheme B using EUROMOD and concludes that it would save the Exchequer £1.9bn if implemented. When we ran a UBI system with the same parameters through the Landman Economics tax-benefit model we found Exchequer savings of £29bn – a difference of around £27bn. (If we compare our scheme 4 – which has higher payments levels than Torry's scheme B, but is otherwise identical), it is also broadly revenue neutral – with a net cost of £0.7bn) There are clearly some significant difference in costings, and we have conducted additional analysis using the Landman Economics tax-benefit model (together with a more detailed examination of the assumptions used in EUROMOD) in an attempt to discover the cause of the differences.

It turns out that there are two important methodological differences between the Landman Economics model and EUROMOD, which account for most of the differences between the two sets of costings: the Landman Economics model uses more up-to-date parameter files for the base system than EUROMOD, and the costings from EUROMOD are grossed up to population totals without using the weighting factors in the Family Resources Survey data.

THE LANDMAN ECONOMICS MODEL USES MORE UP-TO-DATE PARAMETER FILES FOR THE BASE SYSTEM THAN EUROMOD

The version of EUROMOD used by Torry uses parameter files for the UK tax-benefit system as it was in 2013. Over the course of the 2010–15 Parliament, the income tax personal allowance was raised by considerably more than inflation (from £6,475 in 2010/11 to £10,600 in 2015/16). Therefore the revenue yield from reducing the personal allowance to zero is higher when more recent base parameter files are used. The Landman Economics model uses the 2015/16 tax system, which is the current system at the time of writing. This accounts for a difference of around £15.5bn in the costings of the revenue yield from the personal allowance abolition in the Landman model compared with EUROMOD. Furthermore, the primary threshold for employee NICs also rose faster than inflation between 2010 and 2015, and the difference between the 2013 and 2015 param-

eters for NICs accounts for a further difference of around £1.7bn in the costings. In total, using up-to-date parameter files results in an increased tax revenue yield of £17.2bn for the Landman Economics model compared with EUROMOD.

THE COSTINGS FROM EUROMOD ARE GROSSED UP TO POPULATION TOTALS WITHOUT USING THE WEIGHTING FACTORS IN THE FAMILY RESOURCES SURVEY DATA

Torry's results sum the costings from the 2009/10 Family Resources Survey and then multiply them by the total number of households in the UK (as given by ONS data from the census) divided by the number of households in the Family Resources Survey. This grossing method fails to take account of the sample weights in the Family Resources Survey data, which correct for over- or under-representation of households with particular characteristics in the data compared with the national population. For example, low-income households and high-income households are both under-represented in the Family Resources Survey relative to the national population, whereas middle-income households are over-represented.^{www} Failure to use the Family Resources Survey weights results in an underestimate of revenues arising from the tax changes that Torry models, because individuals with high incomes receive too little weight in the data. Low-income households also receive too little weight in the data but this does not offset the bias from under-representation of high-income households. In total, calculations using the Landman Economics tax-benefit model suggest that not using the weighting factors in the Family Resources Survey results in tax revenue yield estimates using EUROMOD that are £8.7bn lower than they would otherwise be.

On the benefit side of the revenue estimates (costs of paying the UBI, and the reduction in means-tested benefit payments as a result of introducing it), the methodological differences between the two models did not seem to result in significant differences between the two sets of costings.

Overall, around £26bn of the £27bn difference between the Landman Economics costings of Torry's scheme B and the EUROMOD costing of the same scheme can be explained by differences in the methodology used to calculate tax revenues. We are confident that the Landman Economics methodology offers a more accurate figure on contemporary costings than EUROMOD for these simulations.

Footnotes

Notes

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- 23 A 'benefit unit' refers to an adult single person or couple *with or without children*. A household can contain more than one benefit unit under this definition – for example a number of single adults living at one address, or an adult couple living with a parent.
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