Basic income is a fashionable topic. A proposal to introduce one in Switzerland was put to a national referendum in 2016, although it was soundly defeated. Finland has recently introduced a modest experiment for 2,000 households. The current interest is mainly on the political left; for example, Bernie Sanders, Hillary Clinton’s rival for the Democratic nomination in 2016, and Britain’s John McDermott, Jeremy Corbyn’s Shadow Chancellor, have expressed enthusiasm for the concept of unconditional basic income. Benoît Hamon, the Socialist Party’s candidate for the French presidency, has made the proposal a principal plank in his platform. The Scottish National Party, which recently announced plans for a second independence referendum, is also strongly in favour. Basic income, at its roots, is a plan to replace all or most existing state benefits by a single payment, made unconditionally to all citizens (or perhaps residents) of a country. There are three principal strands of argument for such a proposal. The first deduces an entitlement to such income from some a priori moral principle. Such an assertion of rights goes back at least to Thomas Paine (1737-1809), and it has also attracted other philosophers, such as Bertrand Russell. More recently, the case has been put forward most vehemently by Philippe Van Parijs.

A different rationale arises from concern that technology will increasingly eliminate low-skilled work, depriving a sector of the population of the prospect of employment. Some technology enthusiasts, led by the Y Combinator group and Elon Musk, see the provision of a universal basic income as a solution to this problem. A related strand of thought, influential in the Swiss debate, seeks to eliminate “bullshit jobs” – unskilled work which offers little in the way of either remuneration or job satisfaction. In a modern economy, with immense technological potential, it is unnecessary and undesirable for people to be employed in this way. Or so the argument goes.

A third, more mundane, argument for basic income observes that social welfare systems across the world have become extremely complex. Proponents of basic income argue that the scheme can achieve the objectives of welfare systems more effectively and at much reduced administrative cost. In this paper, I will not evaluate the moral reasoning or prognostications of technological apocalypse behind the first two groups of assertion. I shall focus instead on the fiscal arithmetic of basic income and ask if it is possible to devise a practicable scheme which would meet the objectives of these advocates of a universal basic income.

All established tax and benefit systems make use of both contingent and income-related information. Contingent information refers to verifiable characteristics of individual (or household) circumstances – including age, employment status, sickness and possible disability. Income-related information measures the total resources (which may also include capital resources) available to an individual in some way.

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ual (or household). Some benefits are paid on the basis of contingency (e.g. old age), while others require evidence of income resources, or lack of such. Means-tested benefits are generally both contingency and income-based, such as the provision of free or subsidised medical or social care if income is below a certain threshold.

All welfare systems rely on income-related information, if only to raise the taxes which pay for them. The simplicity of a pure basic income scheme arises because it considers only one income-related element — the income tax — and only one contingency — personhood. Thus, there is an equivalence — which many people find surprising — between basic income and a “negative income tax”, which is a superficially different plan that would eliminate all contingent benefits and offer welfare through one, and only one, mechanism — the calculation of individual or household income for tax purposes. The negative income tax is a scheme in which individuals (households) with incomes below the income tax threshold receive rather than send payments. Every citizen is a taxpayer, even if some have negative liabilities.

Basic income is therefore at the opposite end of the spectrum of welfare systems from schemes which find their origins in the social insurance concept pioneered in Bismarckian Germany. Social insurance eschews means-testing and distributes benefits in the event of contingencies which are likely to give rise to needs. Modern versions of such schemes are often described (in the UK) as “back to Beveridge” proposals, referring to the widely applauded (but never fully implemented) scheme devised by Sir William Beveridge for the UK during the Second World War.12 Beveridge’s plan would have paid benefits unconditionally on occurrence of any of the “insured” contingencies – including unemployment, sickness and retirement.

Typically, the terms “basic income”, “citizen’s income” or “demogrant” have been used by those on the left of the political spectrum, while “negative income tax” has been used by those on the right. The late 1960s and early 1970s saw a flurry of interest in such proposals. In the US presidential election of 1972, Nobel Laureate James Tobin urged Democratic candidate George McGovern to propose basic income policies,13 while fellow Laureate Milton Friedman advocated a negative income tax to Republican candidate Richard Nixon.14 Although Nixon won, his attempt to put forward a version of Friedman’s scheme made little headway.15

Following Tobin, the arithmetic of basic income can be summarised as $t = x + 25$, where $t$ is the average tax rate (as a percentage of GDP) necessary to finance $x$, the planned basic income (as a percentage of per capita GDP).16 The rationale of this expression is as follows: payments of basic income must be tax-financed over the long term, while 25% is the approximate figure for the share of GDP required to fund non-welfare related public expenditure (health, education, public administration, debt, military and police expenditures, etc.).

Table 1 sets out base data for six countries: the four largest Western economies – France, Germany, the UK and the US – and two states, Finland and Switzerland, which have been at the forefront of the basic income debate. In all six countries, average earnings of full-time employees are similar to, but slightly less than, GDP per head (on average, around ten per cent less). This relationship arises because of two roughly offsetting effects: labour income is only part of GDP, but all of that income is earned by that portion of the population which is in employment. As the labour share of GDP and the participation rate are fairly similar, approximate equivalence is argued to hold.

12 W.H. Beveridge: Social Insurance and allied services: presented to parliament by command of His Majesty, London 1942. Note in particular the line “Benefit in return for contributions, rather than free allowances from the State, is what the people of Britain desire...”.
In all six countries, median earnings are somewhat less than average earnings, reflecting the skewed distribution of incomes (more people receive below-average than above-average incomes). The median is the 50th percentile of the earnings distribution – equal numbers of people earn more and less than the median, and therefore it may be thought of as a measure of representative earnings. Thus, the median provides a natural reference point for judging the appropriate level of minimum or basic income. Four of the six countries in Table 1 have statutory minimum wage levels. In France, Germany and the UK, the legally prescribed floor is between half and two-thirds of the median wage (see Table 2). The US federal statutory minimum wage is much lower, at 34% of median income, but this figure is generally acknowledged to be insufficient to fulfill the objective of ensuring an adequate standard of living for those in full-time employment. The federal minimum has been increased only once since 1997, and many states and municipalities have imposed higher minimum wages.\(^\text{17}\)

Figures for basic income come from a variety of sources. The French figure is the minimum stipend of €750 per month proposed by Hamon,\(^\text{18}\) and the Swiss figure is that which was put forward for the 2016 referendum.\(^\text{19}\) The US proposal of $1,250 per month was suggested in 2008 by Joseph Kennedy, a former chief economist of the US Department of Commerce.\(^\text{20}\)

The lowest figures for basic income cited in Table 1 are those from the UK and Finland. This is no accident because, in contrast to the other proposals, the British and Finnish figures are not plucked from the air. The UK figure is based on the Green Party’s 2015 election manifesto, which is derived from a conscientiously conducted cost appraisal by the Citizen’s Income Trust.\(^\text{21}\) The Finnish figure is that used in that country’s current experiment. Each therefore represents a realistic proposal.

In both countries, the level of basic income is below 20% of median full-time earnings. In the case of the UK, this necessarily follows from the attempt to establish a fully costed and broadly revenue-neutral proposal. Currently, total welfare spending by the UK government (excluding personal social services), together with the cost of the personal income tax threshold (the provisions of which might be replaced by a basic income), total around 15% of GDP, which is consistent with the financing requirements of a basic income of 18% of median earnings, as described in Table 1. Pensions account for about half of this welfare expenditure. The Tobin formula thus implies an average tax rate of about 40%. The actual tax take at present is somewhat less than this (around 33% of GDP), because the personal allowance in the income tax system is currently treated as a reduction in tax (amounting to around three per cent of GDP) but would be classified as an expenditure under basic income, and because the UK government at present runs a substantial deficit (around four per cent of GDP).

Any increase in the level of basic income as a proportion of median earnings above 18% would lead to a similar, though slightly smaller, increase in the required average tax rate. For example, basic income at 30% of median earnings would require an increase of ten percentage points, from 40% to 50%, in the implied average tax rate. To set a target of 40% of median earnings (still below most judgements of a reasonable minimum wage)\(^\text{22}\)


would require all existing tax rates to be increased by more than 20 percentage points (i.e. 50%). These calculations assume behaviour would be unchanged. While this is unlikely, labour market responses would likely make the arithmetic worse, not better.

While the details of such calculations would vary from country to country, the essentials remain the same, and the conclusions inescapable. The provision of a universal basic income at a level which would provide a serious alternative to low-paid employment is impossibly expensive. Thus, a feasible basic income cannot fulfil the hopes of some of the idea’s promoters: it cannot guarantee households a standard of living acceptable in a modern society, it cannot compensate for the possible disappearance of existing low-skilled employment and it cannot eliminate “bullshit jobs”. Either the level of basic income is unacceptably low, or the cost of providing it is unacceptably high. And, whatever the appeal of the underlying philosophy, that is essentially the end of the matter.

How to rescue basic income

I shall not consider further the variety of fanciful suggestions that basic income could be financed, for example, from the assets of the rich, by eliminating tax avoidance by multinational companies, through administrative savings and a drive against waste, by diverting funds from quantitative easing, and even by the distribution of basic income from the sky as “helicopter money”. While there is some possibility of revenue from some of these sources, the scale is frequently exaggerated, and the political and practical obstacles in securing them are not in any significant degree affected by any proposed introduction of a basic income scheme.

The basic income scheme can be rescued only by reintroducing additional contingent elements into it – tailoring benefits more closely to individual or household circumstances. The most obvious contingent discriminator is age. In a developed economy with stable demographics, about 20% of the population is aged 16 or below. If children received half or less of adult basic income, the overall cost of the scheme would be reduced by 10-20%. Provision for young people over the age of 16 will need to be integrated with whatever additional support is given to those in tertiary education.

An income that is less than 20% of the average income is significantly below existing levels of “pillar one” (basic national provision) of retirement provision in most countries and wholly inadequate for the reasonable needs of people who cannot be expected to engage in paid employment. If people below normal working age can be paid less than a standard level of basic income, people beyond normal working age may need to be paid more. And if basic income for pensioners is set at a level sufficient to meet such expectations of retirement income, it is difficult to resist arguments for the provision of comparable benefits for those who are excluded from employment due to disability or chronic illness.

Housing costs are the largest component of the budget of almost all households and a particularly large proportion of the budgets of poor households. But housing costs vary substantially depending on household composition. Two cannot live as cheaply as one, but their housing costs are substantially less than the housing costs of two separate households. Housing costs also vary considerably by region and city. As a result, most welfare systems make specific provision for housing costs, either as a component of benefits or through the availability of publicly subsidised housing for low-income households, or often through a combination of both.

One possibility might be to introduce location as a contingency and pay a higher level of basic income to those whose addresses imply above-average housing costs, e.g. an enhanced basic income for Londoners. The absence of such provision would cause hardship – think of widows now living alone in large city centre properties or young professionals searching for their first employment – and create economic problems, since metropolitan areas need teachers and nurses, not to mention waiters and street cleaners.

But to deal with the issue of variable housing costs through basic income alone is expensive and very poorly targeted. Most people who live in London have above-average incomes for their professions, and many London residents have incomes well above average. These differences in employment incomes are both cause and effect of high London housing prices.

The largest issue in applying further contingent discriminators to basic income is whether to propose a lower payment of basic income to those in full-time employment. To do so potentially reduces the cost of basic income provision substantially, but it does so at the price of undermining the founding principle of basic income itself. Such discrimination also reintroduces significant disincentives to work.

A further difficulty with such a provision is that it is not possible to regard full-time employment as a well-defined contingency. In the six countries reviewed here, between a quarter and a third of the workforce is either in part-time employment or self-employed (Table 3).

The self-employed category includes a minority of highly paid professionals, such as doctors and lawyers, but also many who are either semi-retired or otherwise unable to engage in full-time employment. There is therefore no practical means of defining full-time employment, other
have used the terms individual and household almost as if they were interchangeable, but of course they are not. There is tension between the claims of individuals to be treated as such and the requirement for a just tax and benefit system to reflect the whole of an individual’s circumstances – which plainly include the circumstances of the household in which that person lives. Both these principles are persuasive but are simply irreconcilable with each other.

Tax and benefit systems have always incorporated both an individual and a household basis of assessment. There has been a partial shift from household to individual in recent decades, particularly in the tax system, as a result of changing social attitudes. Even though many countries continue to tax the joint income of spouses, most have incorporated considerable elements of individual taxation within that framework. Proponents of basic income generally appear to assume that a wholly individual basis is appropriate, which is a significant shift, both philosophically and operationally.

But it is hard to imagine a just system which would make no distinction between the millionaire’s spouse who routinely enjoys lunch with her friends while a nanny looks after the couple’s children and the single parent who must stay at home with her (or, occasionally, his) young and needy children, even though the other personal circumstances of the two may, in a formal sense, appear more or less identical.

A second difficulty is that the time horizon over which well-off households budget is generally considerably longer than that of poorer households, which struggle to make ends meet on a weekly basis. Income tax is imposed everywhere on an annual basis, but the relevant timescale for benefits is much shorter. Tax systems reconcile the need to collect most tax by deductions from regular earnings with an annual basis of assessment by over-withholding and processing refunds, a solution which is simply not available in the payment of benefits to poor claimants. Both these problems have proved significant in the implementation of tax-credit arrangements, and while there are methods of overcoming them, these add further to complexity.

Any method of reorganising tax and benefit systems which is even approximately revenue-neutral has winners and losers – if it did not, the outcome would reproduce the status quo and the reform would have little purpose. Analysis of this redistribution is strikingly absent from almost all discussion of basic income: who is it that receives too much under current arrangements and who too little?

If reform is revenue neutral, in the sense that the overall amount spent on welfare is to remain broadly unchanged (including for these purposes the foregone tax from the initial allowance and any substantially reduced lower bands than by reference to the income derived from it. By the time these adjustments have been made, the welfare system starts to look very much like the one most countries already have.

On examination, basic income cannot fulfil the aspirations of its proponents. Nevertheless, there is considerable scope for improvement of the current tax and benefit systems. These systems have grown in piecemeal fashion and largely independently of each other. Both basic income and negative income tax proposals attempt to merge the resources tests of the benefit system and that of the income tax into a single integrated mechanism. While these schemes are unrealistic, they do have many attractions: potential administrative simplification, lower compliance costs, particularly for low-income households, and a rationalisation of the all-too-often capricious interactions created by the combination of progressive income tax rates and the implicit tax rates created by the withdrawal of means-tested benefits.

The UK has perhaps gone furthest in attempting to achieve integration of tax and benefit systems, beginning with the tax credit scheme proposed by Arthur Cockfield, a former tax collector turned businessman turned politician who became a cabinet minister under Margaret Thatcher (and then, as European Commissioner, was a principal architect of the Single Market).23 Cockfield’s innovations were extended by Gordon Brown, Labour Chancellor of the Exchequer, after 1997.

Two fundamental problems in the integration of tax and benefit systems became evident almost from the outset. I

Table 3
Labour force participation, 2014
in %

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>UK</th>
<th>US</th>
<th>Finland</th>
<th>Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall participation</td>
<td>55.4</td>
<td>60.4</td>
<td>62.7</td>
<td>62.2</td>
<td>58.8</td>
<td>68.7</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time employees</td>
<td>75.6</td>
<td>68.9</td>
<td>65.3</td>
<td>73.5</td>
<td>75.6</td>
<td>63.0</td>
</tr>
<tr>
<td>Part-time employees</td>
<td>12.7</td>
<td>20.2</td>
<td>19.9</td>
<td>11.0</td>
<td>10.5</td>
<td>21.9</td>
</tr>
<tr>
<td>Self-employed</td>
<td>11.7</td>
<td>11.0</td>
<td>14.7</td>
<td>15.5</td>
<td>13.8</td>
<td>15.1</td>
</tr>
</tbody>
</table>

Source: OECD (common definitions); author’s calculations.

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of income tax as welfare payments), then the redistribution would be primarily amongst poor households. The nature of such redistribution depends critically on the details of the scheme – what allowance, if any, is made for sickness, disability, the reasons for low income, housing costs, the relationship of child to adult basic income, etc. These factors are relevant because of the elaborate plumbing of welfare systems, designed to match resources with needs, which the advocates of basic income would sweep away. In the absence of considerably more detail in the presentation of the schemes, it is not possible to specify what these redistributive effects would be. Two things are certain, however. One is the political reality that those who lose from reform will be louder in their complaints than the gainers in celebrating their good fortune. The second is that extensive transitional measures would be required to alleviate immediate hardship for the already needy households.

The alternative is to raise taxes on wealthier households sufficiently to ensure that almost no households would lose. In the UK, a “benefits cap” was introduced in 2013 to prevent households from receiving more than the median income in welfare benefits and a single person from receiving more than around 70% of the median income. Despite provisions designed to exempt those who might suffer particular hardship, the cap was applied in 59,000 cases in the first year.24 Thus, even basic income in the range 50-70% of median income would involve a loss of benefits for a significant number of households. But the tax cost of such provision would approach half of GDP, a level which, given other claims on public expenditure, is impossible.

Conclusion

Attempting to turn basic income into a realistic proposal involves the reintroduction of elements of the benefit system which are dependent on multiple contingencies and also on income and wealth. The outcome is a welfare system which resembles those that already exist. And this is not surprising. The complexity of current arrangements is not the result of bureaucratic perversity. It is the product of attempts to solve the genuinely difficult problem of meeting the variety of needs of low-income households while minimising disincentives to work for households of all income levels – while ensuring that the system established for that purpose is likely to sustain the support of those who are required to pay for it. I share Piachaud’s conclusion that basic income is a distraction from sensible, feasible and necessary welfare reforms.25 As in other areas of policy, it is simply not the case that there are simple solutions to apparently difficult issues which policymakers have hitherto been too stupid or corrupt to implement.
