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A blank cheque

An analysis of the new cap on energy prices

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Summary

Liz Truss's first major act as Prime Minister has been to set out a huge energy support package to reduce the scale of the living standards catastrophe this winter. She did this by announcing large-scale and universal support to cap the increase in all households' energy bills: these are very big handouts indeed, but it was an all-but-inevitable response given the colossal increase in energy prices that we are facing and the limited policy levers available to government.

The Energy Price Guarantee (EPG) will mean that annual energy prices for the typical household are capped at £2,500 for two years from October 2022. This means that energy bills will likely be £1,074 lower over the next six months than in current forecasts of the Ofgem energy price cap. Together with the previously announced £400 energy bill rebate, the EPG covers 76 per cent of the increase in bills compared to last winter (October 2021-March 2022), and means that prices should remain around their current levels this winter (the annual cost of energy for a typical household is £1,971).

This will soften the coming squeeze on incomes by reducing inflation by around four percentage points in January 2023 (and the fact that energy is a higher share of low-income households' budgets means that this rises to almost six percentage points for the poorest tenth of households), at the cost of potentially prolonging elevated inflation or higher interest rates. On the other hand, this winter will still be tough for many. Typical pre-payment meter customers will still need to find £264 in cash for January's energy use alone, down from £550 had the Government announced no more support. And energy bills are far from the only price rise facing households.

By providing universal support, the EPG does a good job of targeting support at families with the biggest bills (and who face the biggest bill rises). Higher-income households typically use more energy, so the richest fifth of households may gain an average of around £1,300 this winter compared to £1,100 for the lowest-income fifth. Income is not the main predictor of energy use, however: 11 per cent of households will gain over £2,000 from the EPG, while another 13 per cent will gain less than £500 (reflecting their electricity and gas use).

Less defensible is that this near-universalist intervention (which is dictated by the difficulty of targeting bill reductions on a wide range of low-and-middle income households) follows other universal or near-universal support announced earlier this year, such as the £400 Energy Bill Discount and £150 Council Tax Rebate. The result is that, while lower-income households will be far harder hit by price rises this year, the combined impact of all measures introduced to support incomes in 2022-23 is being felt broadly equally across the income distribution (in cash terms), with an average gain of

around £2,200 – of which only slightly more than half is in the form of the new Guarantee. Plans to provide further cost of living support by scrapping the rise in National Insurance will skew support towards the very highest-income households.

The Government has also said that it will extend a form of price-capping to business and other energy users too, intervening for an initial six-month period, with further support provided to 'vulnerable' sectors. Although most of the details are unclear, this approach has advantages in avoiding providing grants to firms whose energy bills have not risen significantly: just 32 per cent of businesses (with 10 or more employees) are on a variable electricity contract, and 53 per cent have a fixed contract until at least March 2023 (the equivalent figures for gas are 35 and 51 per cent). The prospect of widespread support being withdrawn in April 2023 should mean all non-domestic users still face considerable incentives to reduce their energy use.

Rising energy costs globally are making the UK poorer as a country. These announcements, and the decision to fund the vast majority of it from borrowing, represent a choice to ask future taxpayers to accept a very large, and very uncertain, bill in order to help today's energy bill payers. The Government, disappointingly, chose not to provide any costings for that bill, but the fiscal cost could eclipse the £137 billion worth of bailouts for banks during the financial crisis. Based on current wholesale gas futures prices, support for households alone over the next six months would cost around £57 billion, rising to around £120 billion over the next two years. Of course this cost is highly dependent on wholesale prices, with the range of futures prices seen in August alone sufficient to see this cost half or double. Business support, many details of which are still to be finalised, will add tens of billions to this. More significantly, the nature of the EPG means that the Government is now bearing all the financial risk related to future movements in gas prices.

The Government has rightly rejected calls from industry to fund the package via higher bills, but could have done more to reduce the amount of borrowing required to deliver it. Directly limiting the cost of the package by reducing the windfalls that some energy firms are currently benefitting from would have helped significantly. The Government's proposal to negotiate new longer-term contracts with low carbon energy generators might reduce prices they charge today but only at the risk of locking in windfalls with a delay – instead, those windfalls should be reduced with some form of revenue or price cap similar to those being considered or implemented in mainland Europe.

Where windfalls cannot be regulated down, they could be further taxed. Despite the Government arguing that windfall taxes should be avoided, they are implementing one by continuing the one announced by the then-Chancellor Rishi Sunak back in May. But, with the Office for Budget Responsibility's current forecast implying that less than £1 in every £12 spent on energy support for households will be recouped directly through this windfall tax there is a strong case for extending that tax on hydrocarbon producers, and also imposing such a tax on low-carbon electricity generators who are not exposed to the high price of fossil fuels. However, claims that windfall taxes can bear most of the burden of funding household support are misplaced, with much of the windfall from higher energy prices accruing to companies (and states) based outside the UK. As a result, and reflecting the very large (and much less-justified) support that Government is providing to even very high-income households, there is a strong case for further reducing the pressure on borrowing by considering a solidarity tax of some form. For example, a 1 per cent increase in all Income Tax rates would raise £9.5 billion in tax revenue, with 60 per cent paid by the top fifth of households (who may benefit by over £13 billion a year from the EPG).

Doing more to reduce the scale of fiscal loosening this year is not just about reducing the burden on future taxpayers. It would recognise the fact that this huge package will also increase the pressure on the Bank of England to increase interest rates faster than they otherwise would. Offsetting a £120 billion boost to the economy could require the Bank to raise interest rates by a further 2.5 percentage points, although much of this will already be reflected in market interest rate expectations. This raises the cost of providing support – an extra 1 per cent on interest rates would add around £11 billion in public borrowing in the first year.

State borrowing on a massive scale to subsidise energy bills cannot be a permanent solution. The EPG is rightly being accompanied by measures to reduce costs and increase energy supply. But there is very little chance that new North Sea oil and gas licences, lifting the moratorium on fracking, and a continued focus on new offshore wind and nuclear capacity will have any impact on bills by the time the EPG expires. There was no mention of onshore wind and solar, which can be built quickly and are unaffected by global price of hydrocarbons. The long-term goal for the UK to become a net energy exporter by 2040 is optimistic, given that the UK currently imports 38 per cent of its energy, and has not been an energy exporter for nearly 20 years. The Government said little on energy demand. The issue of high energy bills in poorly insulated homes is especially acute in the winter months, yet the sole support for households to insulate their homes is the Energy Company Obligation scheme, currently only funded to the tune of £1 billion per year.

This new intervention will make a huge difference to household living standards this winter. But it does not change the medium-term outlook for prices and pay. Households are still likely to end the current parliament significantly poorer than they were at the start of it – an unwelcome and unprecedented feat in modern British history. The temporary Energy Bills Guarantee will not affect the fact that average earnings in 2026-

27 are projected to be no higher than they were 20 years earlier. Turning this around will require global energy prices to fall, but also for the new PM to succeed in her welcome focus on turning around the UK's sluggish growth rates that have underpinned the UK's recent living standards stagnation.

Liz Truss' Energy Price Guarantee is a huge intervention in the energy market

On Liz Truss' third day in office, the new Prime Minister announced a huge package of support for households and businesses facing fast rising energy bills.[1] The scale of rises made a major intervention inevitable, while a limited range of policy options saw the government opt to cap energy price rises for all households. This will provide desperately needed help to millions, but at an eye-watering (and not-yet disclosed) cost.

Specifically, the Government has announced the following measures:

- An Energy Price Guarantee (EPG) will replace Ofgem's price cap from 1 October, and means that the cost of energy for a typical household will be £2,500 for the next two years.[2] When combined with the payment of £400 through the Energy Bill Support Scheme, the Government has said that prices should remain around their current levels (the annual cost of energy for a typical household under the current (April-September 2022) price cap is £1,971).
- An 'equivalent' guarantee for firms, charities and the public sector for six months, with the promise of help for the 'vulnerable industries' beyond that.
- A range of measures to boost domestic energy supply and to try and reduce short term prices in wholesale markets.

The intervention is clearly massive, and inevitably uncertain, in scale reflecting the large but very volatile rise in wholesale gas prices. But that unavoidable uncertainty was reinforced by the fact that the announcement came with few details on the practical details (including how help will be implemented in Northern Ireland, for properties with oil-fired boilers – see Box 1 – or for businesses), its cost, or how it might be paid for. The failure to provide many details of how this scheme will work and, crucially, how much it is likely to cost, is unwise at a time when questions are being asked about how significant a shift in fiscal policy the new government has in mind. Below we set out the likely impact on families and firms, concentrating on the level of support to households across the distribution, and assess what this might mean for the economy overall.

1 Government announces Energy Price Guarantee for families and businesses while urgently taking action to reform broken energy market, September 2022.
2 This figure accounts for the fact that the cost of green levies will be temporarily removed from energy bills (these currently add around £150 a year).

BOX 1: Households not affected by the Ofgem price cap will finally be offered some respite

The announcement of the EPG and related policies was welcome in that it recognised that not all households are protected by Ofgem's Default Tariff Cap. Specifically, the cap applies only to household consumption of gas and electricity and only applies in England, Scotland and Wales. Northern Ireland, which has a different electricity market, is regulated separately, and those households across the UK who are not on the gas grid and still heated by fossil fuels (i.e. not electrically heated) have not been shielded from energy price volatility during the energy crisis. The Government gave very few details here, but said that it would provide "the same level of support [as the EPG] to households in Northern Ireland", and that "Those households who do not pay direct for mains gas and electricity – such as those living in park homes or on heat networks – will be no worse off and receive support through a new fund".

Acknowledging issues in helping Northern Irish homes is long overdue. Seven in ten (68 per cent) of Northern Irish households are heated by oil, with the bulk of the remainder (24 per cent) connected to the gas network but not on capped tariffs. Helping Northern Irish households will, though, require overcoming (or working around) the current lack of a functioning executive so that households can receive this support, alongside the previously-pledged £400 Energy Bill Discount.

Across Great Britain, there are 1.1 million homes that are not connected to the gas grid and use fossil fuel heating, with 78 per cent of these reliant on heating oil. As Figure 1 shows, these families' energy costs (as well as those using heating oil in Northern Ireland) have been on a rollercoaster, with prices peaking at around three-times the longer-term average when Russia invaded Ukraine in the spring. Heating oil prices have fallen back, tracking crude oil markets instead of natural gas, but still remain at around £1 per litre, twice as high as at the start of the year. Worsening the situation for these households is the nature of homes heated by oil, which are overwhelmingly in rural locations and typically very poorly insulated, with just 6 per cent of oil-heated homes in England rated EPC C or above.

FIGURE 1: **Households reliant on heating oil have seen large price fluctuations in 2022**

Average cost of a litre of domestic heating oil: UK

NOTES: Prices are UK averages and inclusive of 5 per cent VAT
SOURCE: Boilerjuice.com

Britain's 500,000 households connected to heat networks are also set for as-yet-unspecified support. These families, who have no option over their energy provider, are also not protected by the price cap and have been more swiftly subject to energy market vagaries over this past year. With the number of heat network-connected homes set to increase markedly as the UK decarbonises (some Climate Change Committee scenarios see a fifth of homes on heat networks by 2050), now would be a good time to markedly improve levels of consumer protection, currently provided through voluntary regulation alone.

This intervention significantly reduces what would have been catastrophic bills for households this winter

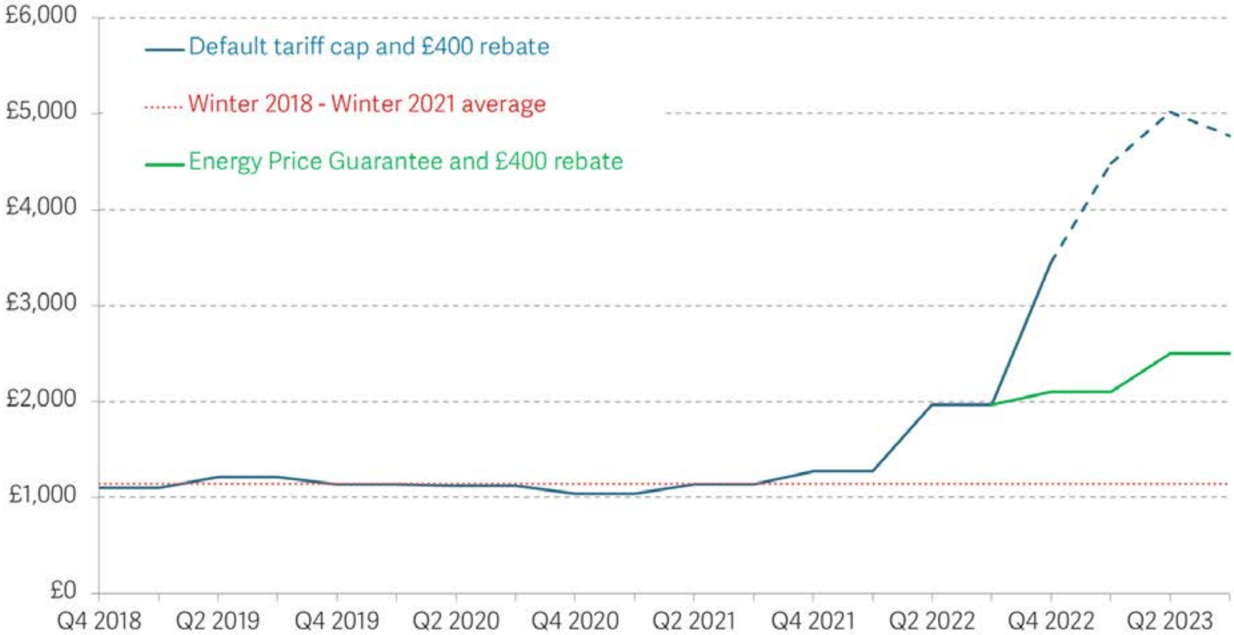
The core part of the new package of measures to help with energy bills is the Energy Price Guarantee, which means that the cost of energy for a typical household will be £2,500 for the next two years. Had the Government not intervened, then the typical household bill was due to rise to an annualised £3,549 from 1 October (as already announced by Ofgem) and then to a predicted £4,586 from 1 January.[3] Instead, the combination of the £2,500 EPG and the existing £400 Energy Bill Support Scheme rebate

3 Source: Tweet by Cornwall Insight, 8 September 2022. https://twitter.com/CornwallInsight/status/1567818276838821893?s=20&t=46jastyXOOiEeIlokE0s4Q

(due to be credited against bills in instalments over the winter months) will keep the cost of energy for a typical household this winter broadly where it would have been under the current (April-September 2022) price cap, before rising from 1 April 2023 when the £400 discount expires (see Figure 2). While the EPG will reduce the October increase in typical energy bills to just 7 per cent (from £1,971 to £2,100), that does not mean this summer will feel easy for many households: the typical household bill will be 83 per cent higher than pre-crisis levels, a figure that will increase to 2.2 times previous levels once the £400 rebates expire in April 2023.[4]

FIGURE 2: **The Energy Price Guarantee will stave off huge spikes in winter energy bills, but households will still pay double the pre-crisis normal**

Historical and forecast annualised default tariff cap costs, for a household with typical usage paying by direct debit: GB



NOTES: Figures are presented on an annualised basis and for households with a typical consumption (TDCV) of 2,900 kWh of electricity and 12,000 kWh of gas. The dashed blue line represents forecast quarterly price cap levels. Forecasts for Q1 and Q2 2023 based on Cornwall Insight figures released 8 September, Q3 and Q4 predictions in line with Cornwall Insight estimates from 26 August 26, revised down to account for wholesale market movements since then.
SOURCE: RF analysis of Ofgem, Cornwall Insight data.

Discussions of annualised bills do not account for seasonal variation in energy use. Household energy consumption is heavily weighted towards the winter months (nearly 80 per cent of domestic gas demand occurs from October-March as gas boilers are fired up to keep families warm), and so the price of energy in the winter has a much larger impact effect on the real bills facing households than prices charged in the summer.

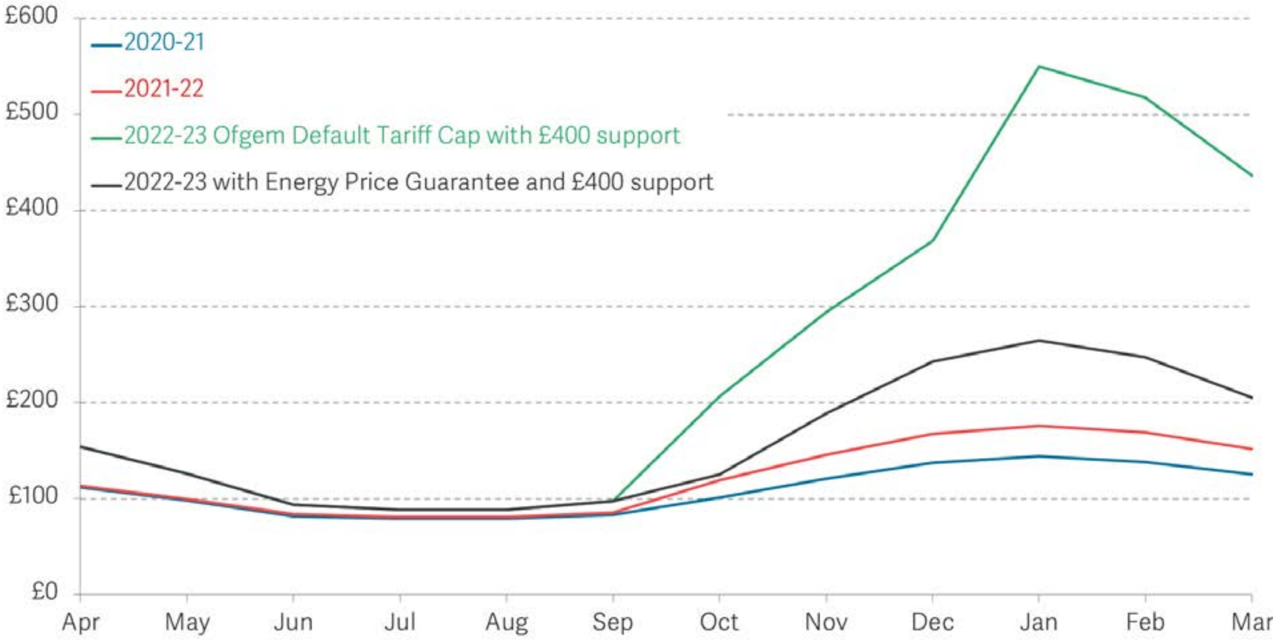
4 The Ofgem price cap and the EPG are both caps on the unit price of energy, but are commonly expressed in terms of what they mean for annual bills for a 'typical' household. Actual bills faced by households will depend on energy use. Some households with fixed-price contracts may also be paying amounts that are below the EPG caps.

As a result, the impact of the EPG on a typical household's energy spend in the current financial year (2022-23) is to lower it from a forecast of £3,021 to £1,947 (with both figures accounting for the £400 energy bills discount), a saving of £1,074, but still more than £500 higher than the £1,472 annual average across 2021-22. This means that the EPG, together with the previously announced £400 energy bill rebate, covers 76 per cent of the increase in bills compared to last winter (October 2021-March 2022).

This policy is therefore set to have a major impact on what would otherwise have been catastrophically high costs of energy used in January, particularly for the near-4 million British households on pre-payment meters who are unable to smooth the cost of the energy bills over the full year. Had no additional action been taken, the cost of the energy used by a typical household in January 2023 would have been £550, an increase of £374 on January 2022; as a result of the EPG, this falls to £264 (with both figures allowing for the Energy Bill Discount, see Figure 3).

FIGURE 3: **The Energy Price Guarantee will shield households from the highest monthly peaks in winter bills**

Monthly domestic energy costs for a typical household: GB 2020-21 to 2022-23 and with different support packages

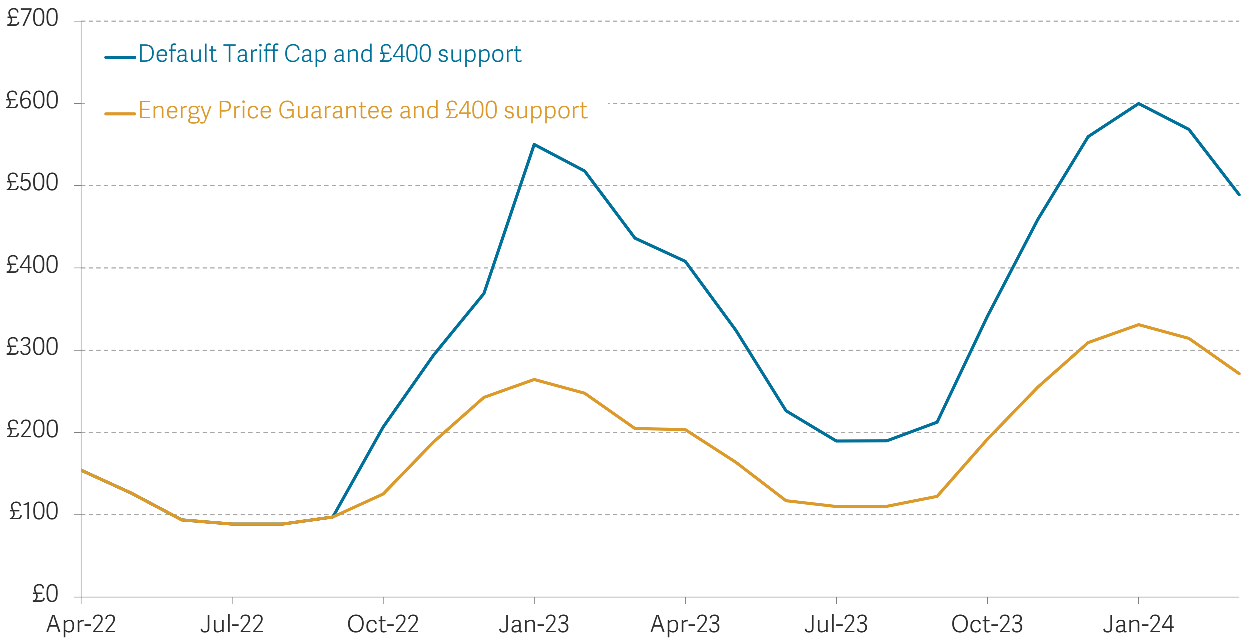


NOTES: Monthly consumption levels determined from Ofgem typical consumption (TDCV) levels of 2,900 kWh of electricity per annum and 12,000 kWh of gas, and historical smart meter data, and do not account for likely changes in behaviour associated with high prices this winter or from behavioural changes during pandemic years. Figures do not account for payments through government support schemes other than the £400 Energy Bill Discount. Forecasts for Q1 2023 based on Cornwall Insight figures released September 8th, Q3 and Q4 predictions in line with Cornwall Insight estimates from August 26th.
SOURCE: RF analysis of Ofgem, Cornwall Insight, UCL Smart Energy Research Lab data.

Much of the focus has been on the imminent challenge being faced this winter, but there is clearly a significant risk that high gas prices will be a feature of daily life beyond the next few months. Forecasts are extremely changeable, but current expectations are for underlying retail energy prices to rise further in 2023 – raising the generosity and cost of the EPG. If these come to pass, Ofgem's Default Tariff Cap would be even higher in winter 2023 than winter 2022 (see Figure 4). It is notable that the Government has committed to continuing with the EPG until October 2024, but not to extending the £400 Energy Bill Discount programme. As such, even with EPG protection, the typical energy bill is set to be 30 per cent higher in 2023-24 than in 2022-23 (£2,500 compared with £1,921)

FIGURE 4: **Futures markets are pricing in a double-whammy of miserable winters**

Monthly costs of gas and electricity used by a typical household: GB, April 2022-March 2024



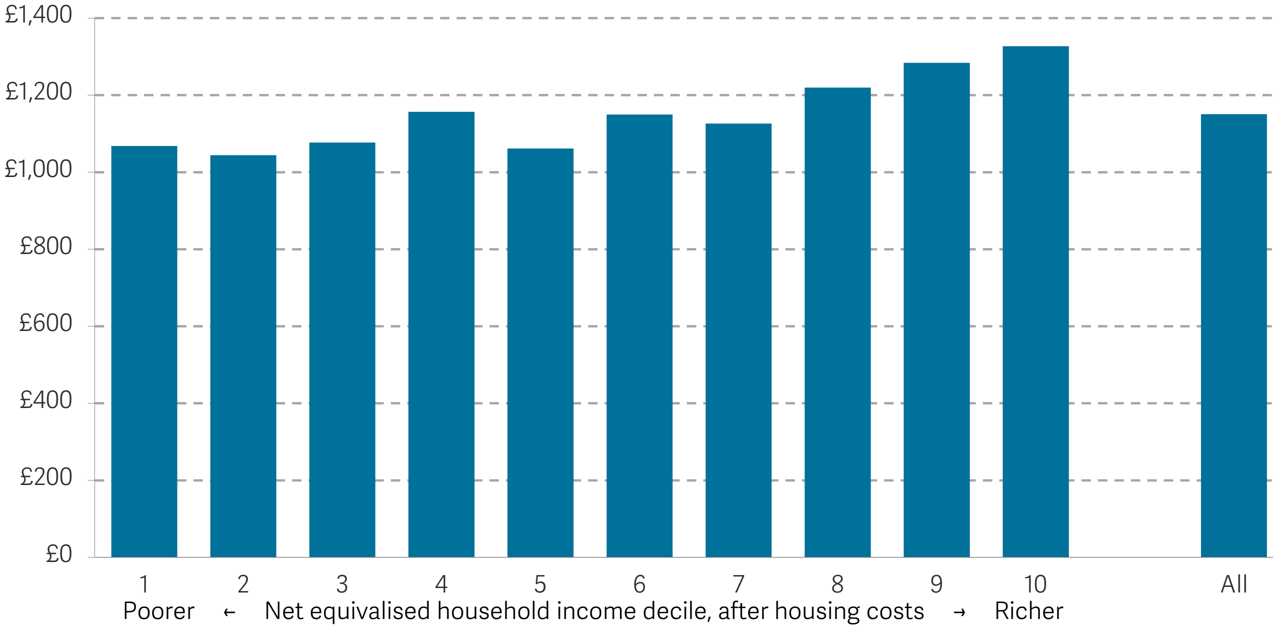
NOTES: Monthly consumption levels determined from Ofgem typical consumption (TDCV) levels of 2,900 kWh of electricity per annum and 12,000 kWh of gas, and historical smart meter data, as such they do not account for likely changes in behaviour associated with high prices this winter or from behavioural changes during pandemic years. Figures do not account for payments through other government support schemes than the £400 Energy Bill Discount. Forecasts for Q1 and Q2 2023 based on Cornwall Insight figures released 8 September, Q3 and Q4 predictions in line with Cornwall Insight estimates from 26 August 26, revised down to account for wholesale market movements since then.
SOURCE: RF analysis of Ofgem, Cornwall Insight, UCL Smart Energy Research Lab data.

Richer households are receiving a similar scale of government support as, far harder hit, low to middle income households

The EPG will save the typical dual-fuel household around £1,100 over the next six months. The saving does rise with household income, as Figure 5 shows. Higher-income households do typically use more energy, so the top fifth may gain around £1,300 this winter compared to £1,100 for the lowest-income fifth.

FIGURE 5: **The Energy Price Guarantee will be worth slightly more to higher-income households**

Average saving from EPG in October 2022 to March 2023, by income decile: GB



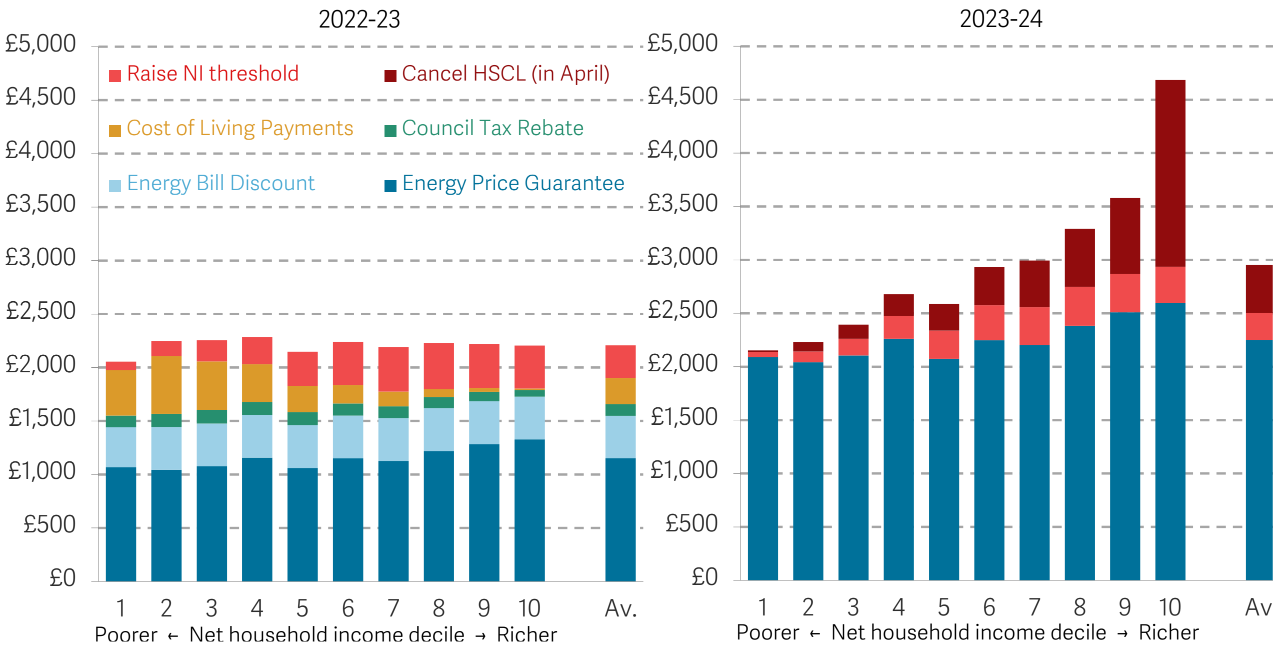
NOTES: Saving relative to pre-announced Q4 price cap, and Cornwall Insight forecast for Q1 released 8 September.
SOURCE: RF analysis based on Living Costs and Food Survey, 2019-20; Cornwall Insight data.

This near-universalist intervention fits with the pattern of broad-based support that has been announced by the Government this year (such as the £400 Energy Bill Discount and £150 Council Tax Rebate). Targeted help for lower income households is being provided via the benefits system, but there are also tax cuts that deliver support to the richest half of households. As a result, the total package of government support now in place to support incomes in 2022-23 provides no more support to poorer than richer households (see Figure 6). Indeed, it is very equal across the income distribution (in cash terms), with an average gain of around £2,200 – of which slightly more than half is in the form of the new Guarantee.

On current plans, the only part of the Government's cost of living measures that are due to continue into 2023-24 are the EPG, and the higher National Insurance (NI) threshold. It is also clear that the new Chancellor plans to reverse the rise in NI rates (previously due to be rebranded as the Health and Social Care Levy in April). If this were to be enacted next year, as the right panel in Figure 6 shows, then 'support' overall will be skewed more towards better-off households, with the highest-income decile benefiting by £4,700 on average while the poorest tenth receive £2,200. Total support could be greater in 2023-24 than in 2022-23, with the EPG covering the full year rather than six months, though this is sensitive to counterfactual price cap projections, as we discuss later.

FIGURE 6: **The price cap limit is by far the most significant intervention made for 2022-23, and leaves the overall policy response fairly flat across the income distribution – with the exception of the expected National Insurance rate cut**

Average policy impacts by decile of equivalised household income, after housing costs: GB/UK



NOTES: We assume here that the NI rise is reversed only in April 2023, and do not model any changes to employer NI. ERG savings relative to pre-announced Q4 price cap, and Cornwall Insight forecast for Q1 and Q2 2023 released 8 September, and RF assumptions up to Q1 2024 based on earlier Cornwall Insight forecasts.
SOURCE: RF analysis of DWP, Family Resources Survey, using the IPPR Tax Benefit Model; the Living Costs and Food Survey, 2019-20; counterfactual Cornwall Insights price forecasts.

The new support is substantial, and reflects the size of households' energy bills, meaning that, for many households, support covers a large fraction of the energy price shock in 2022-23

There are large variations in energy use between households – largely independent of income levels.[5] Larger or less efficient homes, and those in colder parts of the country, of course attract higher heating bills in particular. Policy support proportional to usage was necessary given the scale of the energy price rises – and so it is welcome that the EPG takes this form.[6]

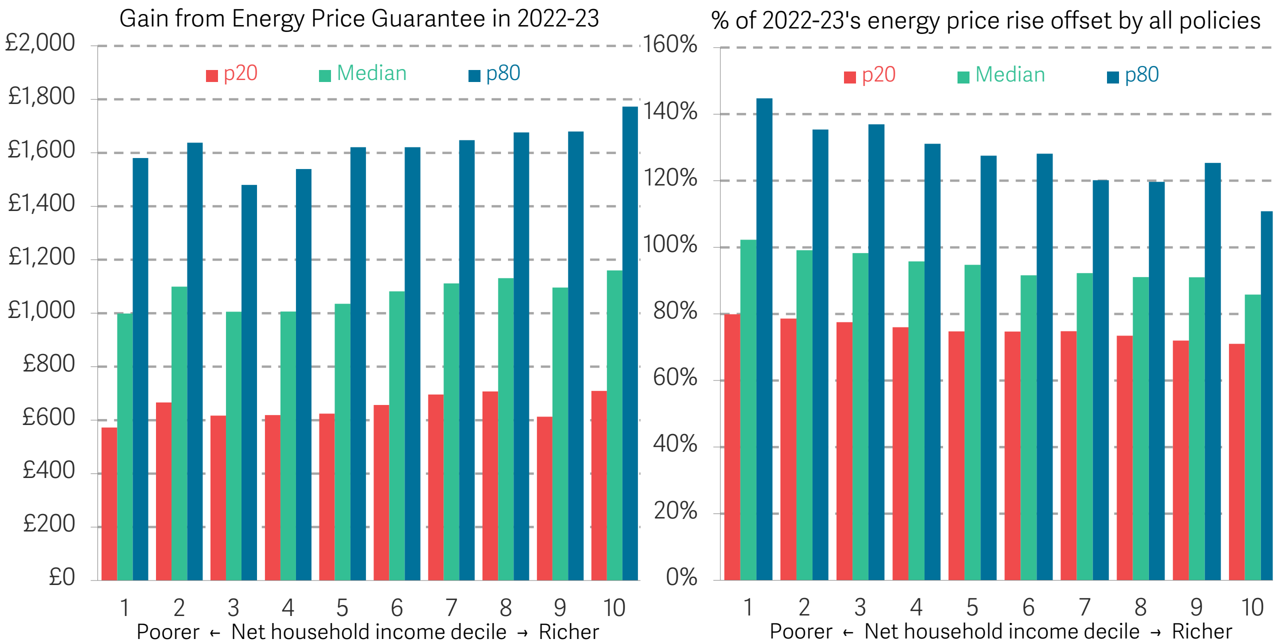
As a result of this variation, the gains to households from the EPG also vary considerably within income deciles, as the left panel of Figure 7 shows. Compared to a median gain of around £1,100, more than one-in-ten households (11 per cent) will gain over £2,000 from the EPG, while another 13 per cent will gain less than £500. But these gains are, of course, mirroring their need for electricity and gas (we have not included heating oil here), and those households benefiting the most will, by definition, be the ones facing the biggest bill rises overall.

When combined with the other forms of support provided in 2022-23, policy interventions will offset the majority of energy price rises relative to 2021-22 for essentially all households, as shown in the right-hand panel of Figure 9 (although this assumes that the support is earmarked for energy rather than to increases in the price of other essentials). Indeed, for around four in ten (12 million) households, the amount received from the combination of these policies exceeds the energy price rise.

5 See: K Handscomb & J Marshall, Cutting back to keep warm: Why low-income households will have to cut back on spending by three times as much as high-income households this winter, August 2022, Resolution Foundation, and Figure 13 of: M Brewer et al., A chilling crisis: Policy options to deal with soaring energy prices, Resolution Foundation, August 2022.
6 M Brewer et al., A chilling crisis: Policy options to deal with soaring energy prices, Resolution Foundation, August 2022.

FIGURE 7: **The cash benefit of the Guarantee, and the proportion of this year's bill rise that policy is offsetting, will vary significantly across households**

Range of savings from EPG and share of potential energy price rise offset by policy support, by decile of equivalised household income, after housing costs: GB/UK, 2022-23



NOTES: Policies included in the right panel are the Energy Bills Guarantee, Cost of Living Payments, Energy Bill Discount, Council Tax Rebate, and increased NI threshold. We do not include the impact of a cut in NI rates, as the timing of this has not yet confirmed by the Government. Potential price rise is 2022-23 relative to 2021-22.
SOURCE: RF analysis using the IPPR tax-benefit model; the Living Costs and Food Survey; and counterfactual Cornwall Insights price forecasts.

Firms' energy bills will also be reduced for six months, though details remain to be announced

The Government also announced that it would be providing "equivalent support as is being provided for consumers" to businesses and other non-domestic energy users, but only for a period of six months.[7] Some support will be provided beyond that period, but only for 'vulnerable' sectors, with details to be announced in three months and likely to be the subject of very intensive lobbying in the meantime.

The scale of the energy price increases has been large enough that it is clear that support was needed for some businesses, and so the new measures are welcome. It is sensible that different approaches are being taken to deal with the non-domestic and domestic sectors, as the nature of the challenges faced are very different.

7 Government announces Energy Price Guarantee for families and businesses while urgently taking action to reform broken energy market, September 2022. This guarantee also applies to the public sector and charities, but we focus our discussion on businesses.

The big picture is that reducing energy usage is a necessity at a time when supplies across Europe are constrained. Firms (and other non-domestic users) should take most of the burden of this because, unlike vulnerable households – where reducing energy usage could mean substantial costs to health and well-being – firms have a greater margin to adjust their consumption (as well as some ability to raise prices in the face of rising costs).[8] This implies that the policy response should be focussed not on permanently offsetting the energy price rises, but on protecting firms' finances and improving efficiency.

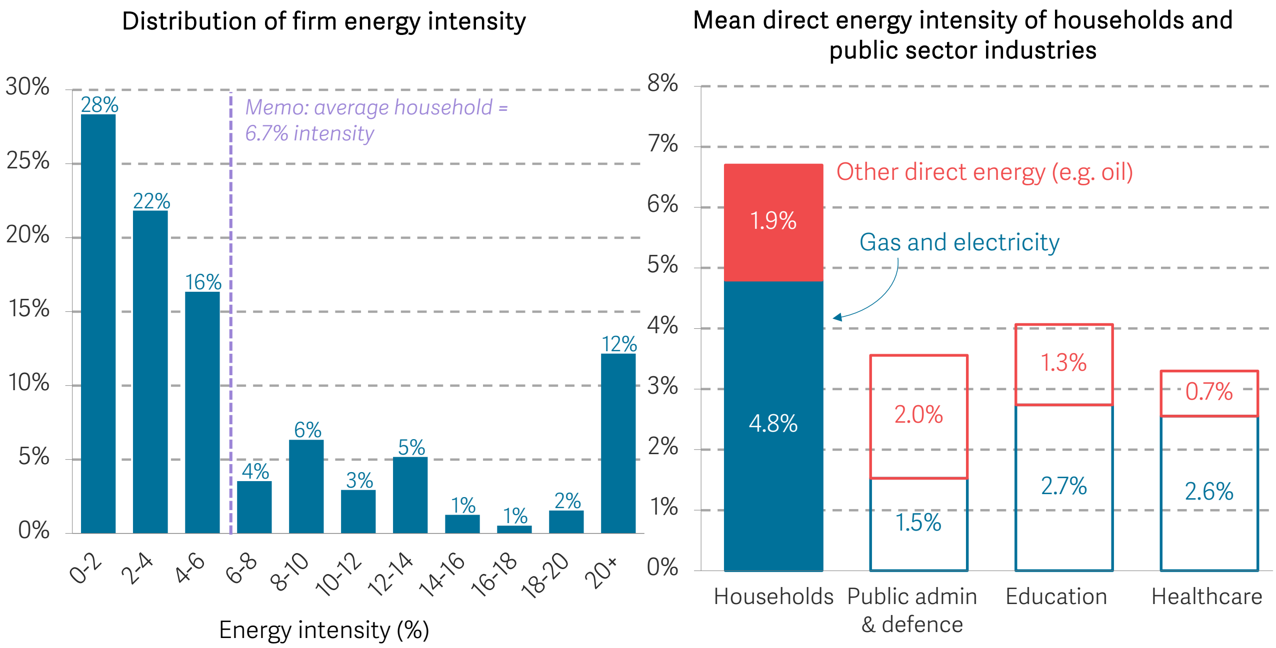
For the next six months, the Government has chosen to provide effectively universal support to businesses to ensure energy bills do not rise.[9] Using the mechanism of energy prices (rather than cash grants to firms) has the advantage of protecting firms in proportion to their exposure to rising energy bills. This is important for two reasons: the variability of energy usage is much higher for firms than households (see Figure 5), as is their exposure to rising prices (given that some will still be on fixed-price deals that pre-date the invasion of Ukraine).

8 It is much harder for households to demand higher wages when their costs increase, and increasing hours worked is not a universally-available option.

9 It is unclear how the Government's energy market interventions will affect businesses with energy contract prices in excess of the equivalent £2,500 household level.

FIGURE 8: **Most firms are less energy intensive than households, but some are far more energy intensive**

Proportion of firms falling into energy-intensity bands (left chart), and estimated mean share of expenditure directly on energy for households and public sector industries (right chart): UK, 2018 and 2019



NOTES: Energy intensity for firms is calculated as energy purchases divided by total purchases of energy, materials, goods and services, excluding purchases for direct resale. For public sector industries it is calculated, at an aggregate level, as the expenditure on crude petroleum, natural gas and metal ores; coke and refined petroleum products; electricity, transmission and distribution, gas; and distribution of gaseous fuels through mains, steam and air conditioning supply, all as a share intermediate consumption (which excludes compensation of employees). For households, it is calculated as the share of the CPI basket on gas, electricity, petrol and other fuels.
SOURCE: ONS, Input–output supply and use tables (2019); ONS, Energy intensity: Annual Business Survey 2019 and Annual Purchases Survey 2018; ONS, Consumer Prices.

Intervening to hold down energy prices also limits the extent to which a spike in energy prices would distort competition across firms, in a situation where some are facing exploding bills but competitors lucky enough to have a fixed contract face no increase in costs. 32 per cent of businesses (with 10 or more employees) with applicable electricity costs are on a variable contract, and 53 per cent have a fixed contract until at least March 2023; the equivalent figures for gas are 35 and 51 per cent respectively.[10] The downside to any form of price freeze is that it reduces firms' incentives to reduce energy demand (although the capped price of energy will still be over twice its level of a year ago), but this disadvantage has been minimised by the clear statement that this universal intervention will only last six months.[11]

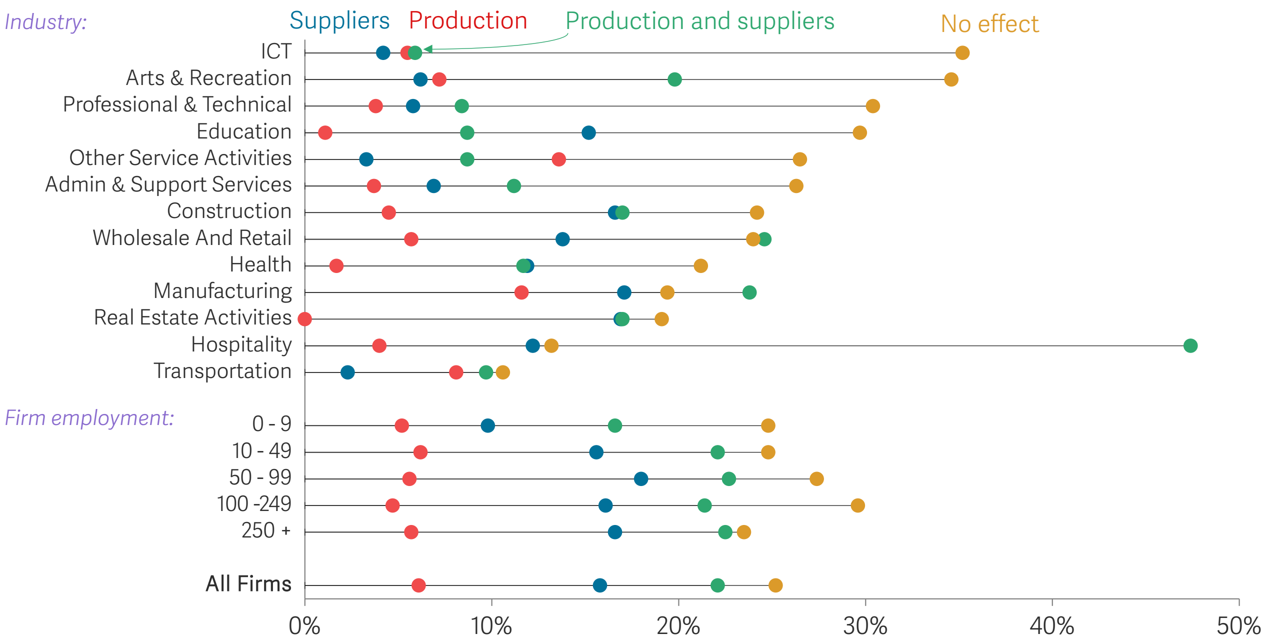
10 Source: ONS, Business Insights and Conditions Survey data, Wave 64. These figures exclude businesses which reported that energy contracts were not applicable or they did not know their contractual arrangement. Smaller firms are more likely to be on variable price contracts but also significantly more likely to report that contracts are not applicable to their businesses so drawing conclusions for small firms is difficult.

11 There may be an unintended consequence where firms are incentivised to bring forward energy-intensive production over the winter, which would be highly counterproductive to the need for energy use reductions.

There is little detail at this stage what support will be provided to firms after the six-month energy guarantee is removed, although measures will be targeted by sector.[12] That makes sense given the wide distribution in exposure to the energy crisis; Figure 6 provides an indicative evaluation of where targeted support is needed most. The hospitality sector is a clear outlier, with 47 per cent of businesses reporting that both their own service and their supplier's services have been affected by recent energy price increases, almost twice the figure for the next highest sector (wholesale and retail). This is on top of the sector being particularly hard-hit by the pandemic's curtailment of social interactions, and being more exposed to households cutting back on discretionary spending as their energy bills rise.[13]

FIGURE 6: **Targeting future support by sector looks to be a good approach, although the detail will matter**

Proportion of businesses reporting being affected by recent energy price increases, by how the increase has had an effect: UK, 8 to 21 August 2022



NOTES: Chart excludes 'not applicable' and 'don't know' responses.
SOURCE: RF analysis of ONS, Business Insights and Conditions Survey.

12 BEIS is expected to consult the business sector and publish a plan in three months' time.
13 N Cominetti, J Leslie & J Smith, On firm ground? The impact of Covid-19 on firms and what policy makers should do in response, Resolution Foundation, February 2021.

Such extensive intervention does not come cheap; the bill for guaranteeing a maximum price for households alone could reach around £120 billion over two years

Underwriting energy bills so universally comes with a high, and highly uncertain, bill. The Government's commitment to freeze household energy bills – effectively taking a short position against gas and electricity wholesale markets – now means that the UK taxpayer is on the hook for a bill that will vary in line with a market that, as evidenced during 2022 so far, is highly volatile in the current geopolitical context.

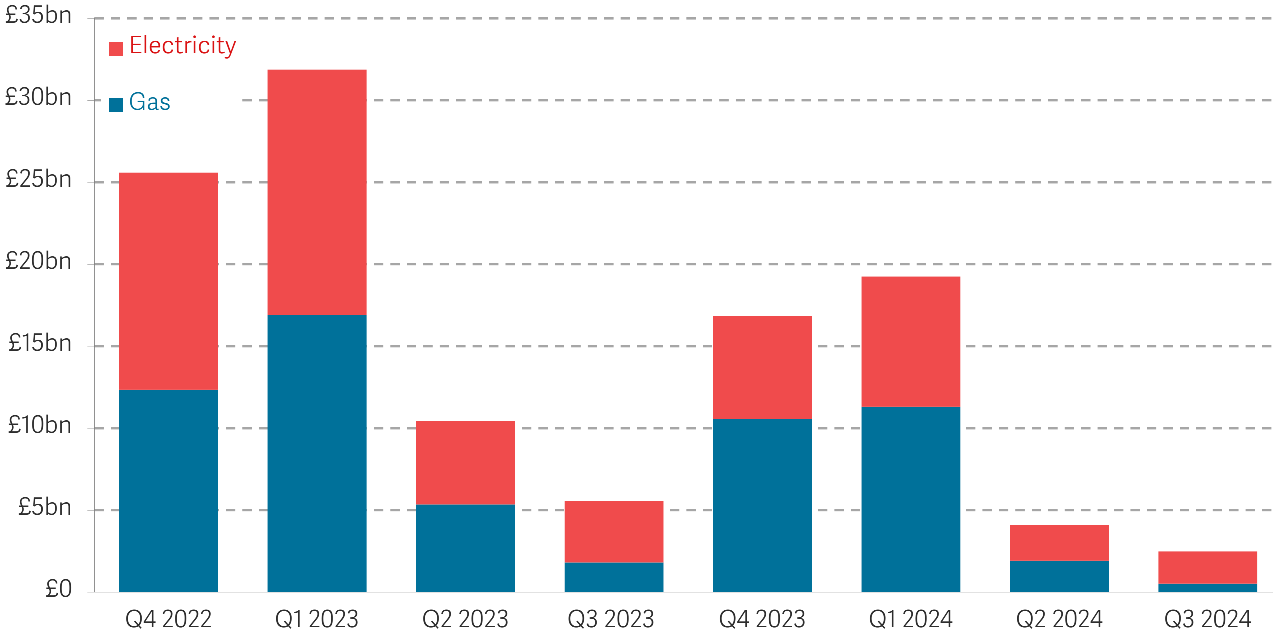
Unfortunately, the Government did not give their own estimates of the cost of these interventions, saying that it would publish these later in September in a 'fiscal statement' Financial Statement. But a £2,500 price cap for households broadly corresponds to wholesale gas and electricity prices of around £2/therm and £175/MWh, respectively. Over the course of the planned two-year operation of the EPG, though, wholesale futures markets currently average more than double these prices, at £4.64/therm for gas and £425/MWh for electricity. As such, the announced support will come at considerable cost.[14]

As Figure 8 shows, therefore, the bill for supporting households alone can be estimated at £57 billion for this winter, rising to £116 billion over the two years of the scheme (see Figure 10). But the nature of the EPG means that future tax payers are now exposed to changes in gas prices. Over August alone, front-quarter gas contracts (those for delivery in Q4 2022) traded in a range of £3.30/therm to £7.30/therm (sharply higher than the pre-crisis average of around 50 pence/therm), the extremes of this range persisting over the two years of the price cap freeze would correspond to overall costs of ranging from £60 billion to more than £230 billion. These very large costs come on top of £30 billion of support previously announced to support households.

14 The Prime Minister signalled that the EPG would intervene in the wholesale market. In the absence of any further detail, we have based our estimates for the cost of the scheme on wholesale gas and electricity prices for the periods covered by the EPG (rather than wholesale costs, in line with Ofgem's price cap methodology, which assumed a particular hedging strategy over the price cap assessment period).

FIGURE 10: **Capping energy bills for all households comes with a very substantial cost**

Estimated quarterly costs of the Energy Price Guarantee, by fuel



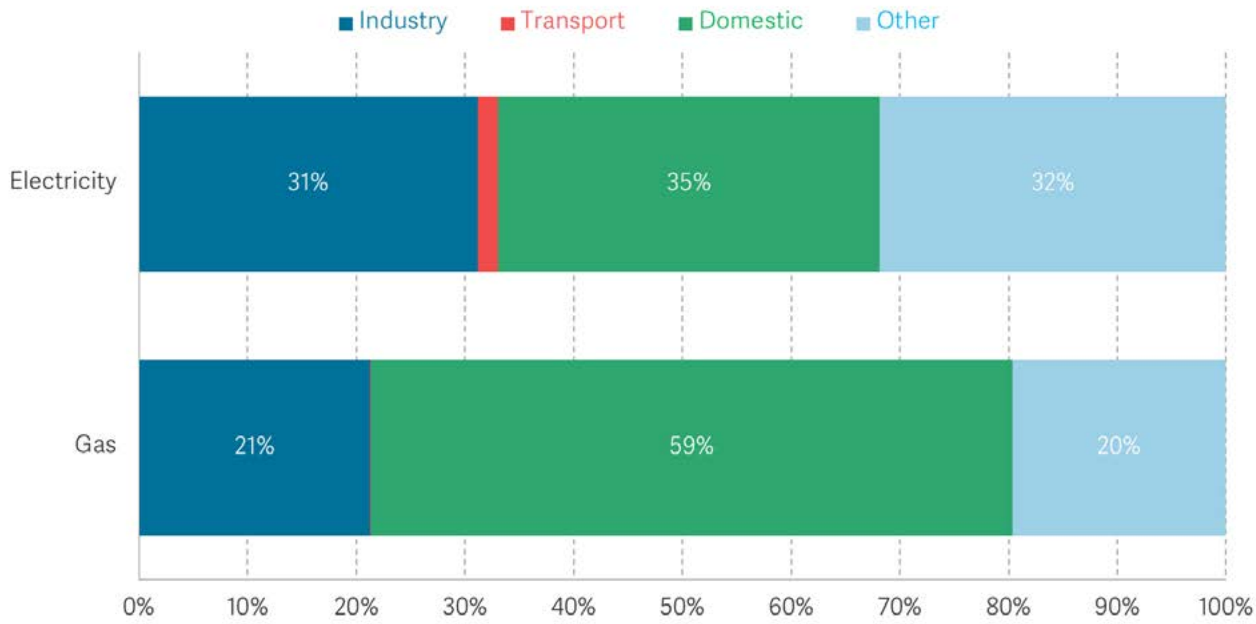
NOTES: Quarterly costs for supporting households via the Energy Price Guarantee are based on differences between wholesale gas and electricity prices needed to realise a £2,500 Default Tariff Cap, estimated at £2 per therm for NBP gas and £175 per megawatt hour for GB baseload electricity, and current futures prices over the time periods in question. The latter were downloaded from the ICE exchange on September 7 2022 and correspond to an average gas price of £4.64 per therm and average electricity price of £425 per megawatt hour. Government figures for domestic gas and electricity consumption are taken from 2019 to avoid pandemic effects, and are weighted by quarter to reflect higher energy use in the winter months. This estimate comes with inherent uncertainty, not only in terms of volatility in energy markets, but also how households will response to price signals by reducing demand.
SOURCE: RF analysis of BEIS gas and electricity consumption data, Ofgem Default Tariff Cap methodology, ICE exchange data.

Pledges to shield businesses and the public sector from unaffordable energy will also come with significant cost. As Figure 11 shows, two-thirds (65 per cent) of final electricity consumption and one third (31 per cent) of final gas consumption is non-domestic, so the cost of already-announced support could easily be a fraction of total spending required to keep energy affordable nationwide; a very rough estimate is that it could cost low tens of billions to implement (again, with the eventual cost depending on future energy prices).[15]

15 The costs of providing support for businesses are significantly more uncertain than the cost of household support. As shown in Figure 11, the majority of final electricity usage is outside the household sector and 41 per cent of final gas usage is outside homes. Simplistically, that suggests a rough doubling of the household cost (for the first six months), but there are several dimensions which make this more uncertain. First, a sizeable proportion of firms will be on fixed energy contracts (BICS data suggests 34 per cent of firms are on variable gas contracts or fixed deals that expire before March), and as such will have limited their (and likely the Government’s) exposure to high energy prices. This suggests the Government will only be supporting the energy costs of a minority of firms (in marked contrast to the vast majority of households). Second, we do not know how much businesses will be able to reduce energy usage; for some firms, cutting energy usage may be difficult but for others significant energy use reductions may be possible. Third, we are yet to receive any detail on what support measures will be put in place after six months. Taking this together, an extremely rough costing of adding half of the outlays on the first six months of the household support measures seems a reasonable baseline, reflecting that roughly half of total gas and electricity use is outside of the household sector and around half of firms will be paying variable bills at some point before the end of the scheme.

FIGURE 11: **Despite its massive cost, the Energy Price Guarantee only covers a fraction of final energy consumption**

Share of final gas and electricity consumption by sector: UK, 2019



NOTES: 2019 figures shown to avoid pandemic effects.
SOURCE: RF analysis of BEIS gas and electricity consumption data.

The large scale of the support will push interest rates higher, so there's a strong case for reducing that pressure where possible

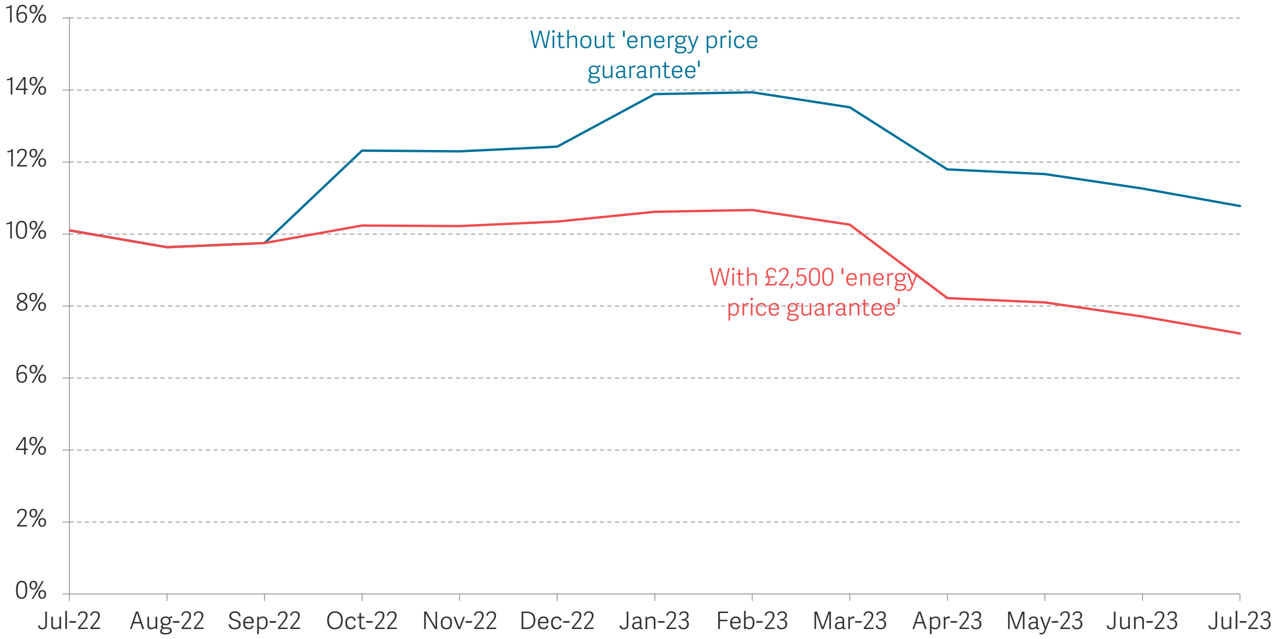
The huge scale of the measures announced by Liz Truss means that they will have a big impact on the economy. Most obviously, the EPG will act to reduce inflation in the near term. As Figure 12 shows, the expected peak in inflation has fallen from around 14 per cent (based on forecasts of the energy price cap on 8 September) to slightly above the July rate of 10.1 per cent, around four percentage points lower.[16] This simply reflects the lower direct contribution to inflation from capping households' energy bills, and does not take into account any indirect effects of that, or any impacts of reducing the cost of energy for businesses. Even so, this is a significant reduction in the peak level of inflation. The fact that energy is a higher share of low-income households' budgets means that this rises to almost six percentage points for the poorest tenth of households, at the cost of potentially prolonging elevated inflation and/or higher interest rates.[17]

16 The Government announcement cited a reduction in inflation forecasts of 5 percentage points, but gas wholesale prices have fallen significantly in recent days which has been reducing the outlook for inflation even before the EPG announcement. Strictly, the policy will initially reduce annual inflation measures in the short term but is likely to increase it further out. This is because we would not expect the EPG to have a permanent impact on the price of energy. This implies that the energy price level will ultimately be unchanged, and, in turn, inflation will be higher in the medium term (this is because inflation is measured relative to the price level a year ago, so a bill reduction in October this year means that the comparison for October 2023 will be made relative to a lower base level).

17 It is worth noting that the EPG and related policies will not change the September 2022 inflation figure which is usually used to uprate most benefits and the Basic State Pension in April 2023, and which is expected to be around 10 per cent. It remains critical that this goes ahead merely to start to catch up with the inflation that has already happened, regardless of the new price cap. See: A Corlett & L Try, In at the deep end: the living standards crisis facing the new Prime Minister, The Resolution Foundation, September 2022.

FIGURE 12: **The peak inflation forecast has fallen by around four percentage points**

Annual CPI forecast, with and without the energy price guarantee: UK



NOTES: The data for July 2022 is the latest outturn. Thereafter, the forecast is based on RF's inflation forecast model. This model breaks down the CPI index into 30 constituent parts which have internally consistent historic dynamics and economic drivers. For 28 of these indexes, we estimate an individual forecast of monthly inflation rates based on historic statistical dynamics including seasonal factors, persistence and cyclical factors. The final two components, gas and electricity bills and transport fuel costs, are forecast using the announced/forecast energy price cap changes and weekly fuel pump prices held constant, respectively. The energy price cap forecast is based on the 8 September 2022 Cornwall Insight forecast.
SOURCE: RF analysis of ONS, Consumer Prices; BEIS, Weekly Road Fuel Prices; Cornwall Insight.

The large cost of the spending on household support (we estimated above a central estimate of £116 billion) represents a significant loosening in the stance of fiscal policy. As well as lowering short-term inflation, it will boost short-term demand and growth, pushing up on medium-term inflation (because the scale of the demand boost is likely to do more to boost inflationary pressures than the lower peak in inflation will do to reduce them by making workers less likely to bargain for higher wage rises). The Bank of England has made it clear that it thinks we are already facing excess demand,[18] so this package of support is likely to be met by higher interest rate rises than we would otherwise see.

In terms of order of magnitude, around £120 billion of spending on payments to households over the next two years could have a peak impact on the level of GDP of around 1.5 per cent, with around 2.5 percentage points of higher Bank Rate needed to offset the impact of that on inflation, based on standard multipliers.[19] The expectation

18 According to the Bank's August Monetary Policy Report, excess demand in the UK economy was expected to be 0.75 per cent of GDP in Q3 2022. See Table 1.A, Monetary Policy Report, Bank of England, August 2022.

19 This simple calculation uses OBR multipliers for spending, see: Economic and fiscal outlook – November 2020, Box 2.1, OBR, November 2020; and Bank of England multipliers for the impact of higher interest rates on the economy, see: S Burgess et al., The Bank of England's forecasting platform: COMPASS, MAPS, EASE and the suite of models, Bank of England Working Paper No. 471, 2013.

of a significant package of deficit-financed support lies behind the recent significant increases in market expectations of UK interest rates. Over the past month alone, the cost at which the Government can borrow – the yields on gilts – has increased by around 1 percentage point.

Higher interest rates from the Bank of England will increase the cost of the support package itself, alongside wider government financing.[20] Each 1 percentage point increase in the Bank of England's policy rate will add around £11 billion to government borrowing in the first year.[21]

There is, therefore, a strong case for doing more to reduce the tension between fiscal and monetary policy. There are three ways it can do so:

- by reducing some of windfalls some energy firms are currently enjoying, which will have the effect of lowering the cost to government of the new guarantee;
- by taxing those windfalls in order to pay for it; and,
- by using the tax system to limit the gains of the EPG to households who need it most.

On the first of these, the Government has said that it will attempt to reduce windfalls, but it risks doing that in a way that instead locks them in, albeit in a delayed form. Liz Truss outlined plans to set up a new Energy Supply Taskforce to negotiate new long-term supply contracts with low-carbon electricity generators (whose windfalls reflect that their costs have not risen, but the price they receive has, because market electricity prices reflect the cost of generating it from gas). If those negotiations are genuinely voluntary, with no compulsion or threat of an alternative approach (such as the revenue caps being pursued by the European Union), they risk 'locking in' windfalls, as firms will only agree to accept lower-than market prices today in exchange for higher-than forecast prices tomorrow.

Despite the current political discussion of windfall taxes varying from seeing them as a big problem (the Government) or the entire answer to the challenges of funding support (the Labour Party), the reality is more nuanced. The Government already has a windfall tax on energy producers, which, as the Labour Party is right to note, could be extended. The energy profits levy (EPL), which will recoup some of the profits currently being made

20 During the debate in the House of Commons, the Prime Minister mentioned that the reduced peak in inflation will bear down on the interest costs of financing indexed linked gilts (the Labour Party made a similar claim about their proposal to cap household energy prices well below the Ofgem price cap). This is true during the period in which inflation is lower, but is only a temporary phenomenon. (Strictly, there is the potential for permanent cost benefits on interest on indexed linked gilts but only for those which are redeemed before the end of the EPG's effect on the price level. 87 per cent of outstanding indexed linked gilts are due to be redeemed after 2024 so this likely to be a small effect at best.) Once the EPG is removed, or gas prices fall below the level of the guarantee, we would expect the price level to be broadly at the same level as if the EPG had not been applied, and so any gains on index-linked gilt interest costs will reverse.

21 October 2021 Economic and fiscal outlook – ready reckoners, OBR, December 2021.

by hydrocarbon producers, is relatively small in scale, at least compared with the £170 billion in profits the Treasury has reportedly estimated producers are likely to make.[22] When the EPL was announced in May, the Treasury estimated that this would raise around £5 billion in its first year,[23] with the OBR extending this over its lifetime to reach a total of around £13.1 billion (to December 2025).[24] This figure is, of course, uncertain, but it implies that less than £1 in every £12 spent on energy support will be recouped directly through higher taxes on energy suppliers (comparing the £13 billion to the estimated £116 billion just for the household support element of EPG). With the £116 billion cost of the EPG support for households roughly equating to 1p on basic and higher rates of Income Tax for around 15 years,[25] the alternative of raising more through windfall taxes – including on low carbon electricity generators - should receive more attention.

But the Labour Party is wrong to imply that there is a plausible route to the majority of the costs of supporting households being funded by anything other than borrowing: much of the increased profits that follow from higher bills for UK households and firms accrue to providers of natural gas located outside the UK, and so are beyond the reach of the UK tax system.[26]

Another route to reducing the scale of that borrowing is to recoup some of the costs of the support package by taxing those on high incomes who are benefitting from the universal nature of the support under the EPG. Given that the highest-income fifth of households consume more than a fifth of domestic energy, over £25 billion of the projected cost would go to them (over £13 billion a year on average), despite them not needing the same support as lower-income households to pay their energy bills. The tax system could be used to offset some of those gains via some form of solidarity tax: for example, a 1 per cent increase in all Income Tax rates would raise £9.5 billion in tax revenue, with 60 per cent paid by the top fifth of households.[27]

Reducing windfalls, better taxing them or asking better off households to contribute more are sensible routes to reducing the pressure on taxpayers tomorrow, and the Bank of England today, from the extent of additional borrowing.

22 A Wickham & T Gillespie, UK Sees Up to £170 Billion Excess Profits for Energy Firms, Bloomberg, August 2022.
23 Energy Profits Levy Factsheet, HM Treasury, 26 May 2022.
24 Fiscal risks and sustainability – July 2022, OBR, 7 July 2022. Of course, the revenue from Corporation Tax on companies making windfall profits in the UK will also rise and 'pay' for a small portion of the policy support.
25 Roughly speaking, recouping around £100 billion would equate to raising £7.5 billion a year between 2025-26 and 2039-40. This would be the same ballpark as policies such as raising the basic rate and higher rate of Income Tax from 2024.This calculation uses HMRC's 'ready reckoners' for the impact of tax changes, see: Direct effects of illustrative tax changes, HMRC, June 2022.
26 Funding the scheme through borrowing (future general taxation) is, though, a more progressive outcome than the (previously rumoured) option of recouping the cost through future energy bills, given that energy spending as a proportion of income is higher for those on lower incomes (another drawback of a bill-funded approach would be that energy providers would face higher borrowing costs than the Government – even if Government guarantees made that difference small – making it needlessly expensive to finance support for the households).
27 M Brewer et al., A chilling crisis: Policy options to deal with soaring energy prices, Resolution Foundation, August 2022.

Subsidising energy prices cannot be a permanent solution

The fact that the astronomical cost of energy right now is likely to be temporary justifies borrowing to meet some of the bills that result. But state borrowing on a big scale to subsidise energy bills cannot be a permanent solution. While the root cause of the problem – international gas prices – remains outside of the Government's control, the EPG is being accompanied by a number of measures designed to reduce costs and increase energy supply, including a goal of the UK becoming a net energy exporter by 2040 (an optimistic goal given the UK currently imports 38 per cent of its energy, and has not been an energy exporter for nearly 20 years).[28]

A sustained focus on the resilience and cost of our energy supplies is very welcome. But considering the timescales involved in bringing new supplies of energy online, there is very little chance that measures announced by the Government – new North Sea oil and gas licences, lifting the moratorium on fracking, continued focus on new offshore wind and nuclear capacity – will have any impact on bills by the time the EPG expires. The Government, at least rhetorically, has overlooked the new sources of energy that can be built quickest, specifically onshore wind and solar. Revisiting this decision would be a clear step toward lowering the cost of nationwide support with energy bills.

The Government also said little on energy demand. The issue of high energy bills in poorly insulated homes is especially acute in the winter months,[29] yet the sole support for households to insulate their homes is the Energy Company Obligation scheme, currently only funded to the tune of £1 billion per year. A pledge to "undertake fundamental reforms to the structure and regulation of the energy market" would be expected to curb energy bills, especially through the de-linking of wholesale gas and electricity prices, but the complicated nature of this process means that it won't happen quickly.

And given the uncertainty about how long energy prices will remain high, the Government should look to put in place alternative mechanisms of support for the future. Those must include going ahead with the large uprating of benefits in April 2023 that current government policy implies. But they should also consider the infrastructure that would be required to put in place a social tariff that covers not just those on benefits but all low-and-middle income households. The lack of such infrastructure is why the bill for household support is so high.[30]

28 Digest of UK Energy Statistics, Department for Business, Energy and Industrial Strategy, July 2022.
29 Figure 26 of M Brewer et al., A chilling crisis: Policy options to deal with soaring energy prices, Resolution Foundation, August 2022.
30 One possible scheme is set out in: M Brewer et al., A chilling crisis: Policy options to deal with soaring energy prices, Resolution Foundation, August 2022.

This substantial intervention boosts incomes in the short-term but long-term prospects depend on a return to sustained growth

After spending the summer saying very little about how she would tackle high energy bills, the Prime Minister in her first few days showed that she is prepared to respond seriously to what would otherwise have been catastrophic levels of energy prices this winter. The new package of measures will provide substantial relief to households for the next two years and, depending on the detail, will offer some protection to businesses and other users at least this winter.

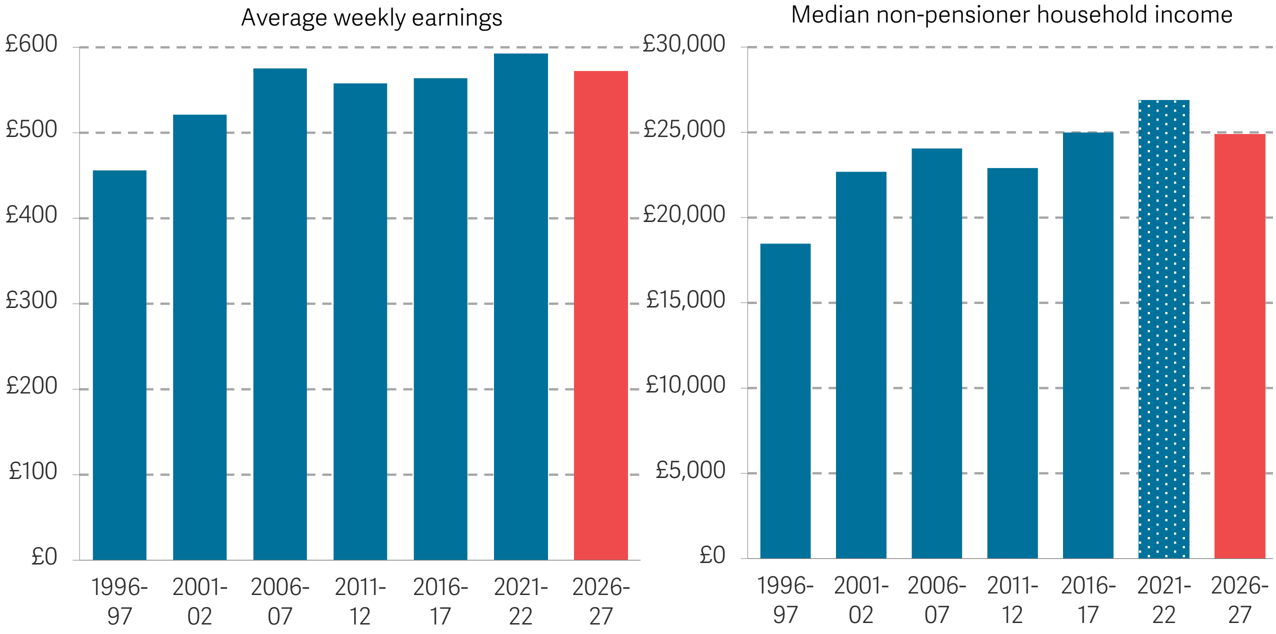
A higher price of energy makes the UK, a net energy-importer, poorer as a country. The Government has decided that a significant amount of that financial pain should be born by future taxpayers, rather than today's billpayers. The size of that postponed bill is larger because of the reluctance to do more to recoup some of the costs from businesses making windfall gains, or from high-income households who can cope with higher energy prices.

Looking ahead to the urgency of raising the living standards of the British households that will pay those tax bills in future, ending the near-two decades of stagnation in household incomes is crucial. It will require not just a sustained fall in energy prices to tackle the short-run pressures, but also an end to the weak productivity and earnings growth that has plagued the UK since the mid-2000s and which Liz Truss has rightly highlighted.[31] The temporary EPG will not alter the fact that average earnings in 2026-27 are projected to be no higher than they were 20 years earlier (see Figure 13), and typical living standards for non-pensioner households are forecast to be only 4 per cent higher – a negligible change over such a long time period.[32]

31 T Bell et al., Stagnation nation: navigating a route to a fairer and more prosperous Britain, Resolution Foundation, July 2022.
32 A Corlett & L Try, In at the deep end: the living standards crisis facing the new Prime Minister, The Resolution Foundation, September 2022.

FIGURE 13: **Real pay in 2026-27 is forecast to be lower than in 2006-07**

Average weekly earnings in real terms (CPI-adjusted, July 2022 prices), three-month average: GB (left); and real median non-pensioner equivalised household disposable income, after housing costs, 2021-22 terms: GB/UK (right)



NOTES: 2021-22 household income figure is an RF nowcast.
SOURCE: Earnings – ONS with RF projection based on Bank of England (August 2022) and OBR (March 2022). Incomes – RF analysis of DWP, Households Below Average Income; and RF projection including use of the IPPR Tax Benefit Model, ONS data, and Bank of England and OBR forecasts.

Liz Truss has said that she is unashamedly pro-growth. Having done a great deal to address the winter cost of living crisis, the long-term challenge facing the new Cabinet is in turning that pledge to pursue growth into a credible strategy that delivers higher productivity, higher wages and higher incomes for households. Without progress, the new Prime Minister risks overseeing not just a disastrous Parliament for household incomes, but the culmination of two lost decades for British households' living standards.[33]

33 A Corlett & L Try, In at the deep end: the living standards crisis facing the new Prime Minister, The Resolution Foundation, September 2022.

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