

Out of pocket

The places at the sharp end of the cost of living crisis

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Introduction

The UK emerged from the economic damage inflicted by the pandemic over the last two years only to lurch straight into a new cost of living crisis. Disruptions to global supply chains, the swift reopening of the economy, and the war in Ukraine have all exacerbated economic stresses and significantly increased prices, particularly for energy.

At the national level, there is a clear understanding of the nature and scale of the crisis. In May 2022, inflation climbed to a record high of 9.2 per cent – the highest rate observed in the past 40 years – but underneath this national figure, less is known about how the cost of living crisis is playing out across places.

This report uses a city-level inflation estimate, developed for the first time by the Centre for Cities, and combines it with an analysis on wage growth to set out what the geography of the cost of living crisis is, what is driving it, and how the squeeze on disposable income is likely to be felt across the UK's cities and largest towns.

Box 1: Methodology

Cities definition

Centre for Cities' research focuses on the 58 largest cities and towns in England and Wales, defined as primary urban areas (PUAs). Unless otherwise stated, Centre for Cities uses data for PUAs in its analysis – a measure of the built-up area of a large city or town, rather than individual local authority areas. You can find the full definitions and a methodological note at www.centreforcities.org/puas

Data used in this research

This research uses national inflation data (rates and weights) at the component level published by the ONS. The authors have also used credit and debit card data from Beauchair to build a city-by-city inflation basket, as well as the EPC Domestic Register to measure the impact of domestic energy in the inflation basket. This research also uses a number of publicly available datasets from a number of sources, including HRMC and the ONS. This research focuses on England and Wales as data from the EPC Domestic Register is not available for Scotland and Northern Ireland.

Box 2: Estimating inflation rates at the local level

Centre for Cities' city-level annual inflation rates are estimated by considering the varying nature of consumption baskets across cities. The inflation rate for each consumption component (i.e. energy, groceries, etc) is constant across cities (see Appendix 1), but their weight varies between cities depending on their consumption patterns.¹ The consumption baskets weights at the city level are divided into three groups:

Housing: accounting for 10 per cent of inflation in all cities.²

Energy: The weight is based on the average energy cost using the distribution of the Energy Performance Certificate (available at the local level) as a share of mean net pay. This varies between 2.9 and 6.2 per cent across cities.³

Other goods and services: This part of the basket is based on the composition of spending at the city level for 2019, excluding housing and bills. This varies between 83.7 per cent and 87.1 per cent. Within these components, groceries have the highest weight: the sector accounts for 25 to 30 per cent of all spending.

Table 3 in the Appendix gives more detail on the inflation rates for each consumption component, based on CPI data. Table 4 shows how the individual components differ between cities.

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There is a geography to the cost of living crisis

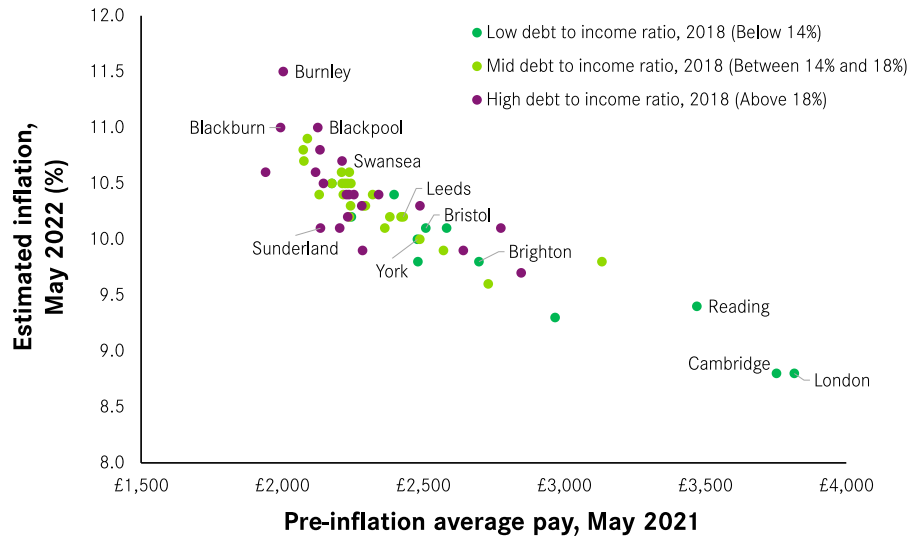
Inflation is higher in the UK's poorest cities

Inflation is worryingly high in all corners of the country, but the cost of living crisis is hitting some places harder than others. It is the UK's poorest cities – those that are the least able to cope – that are likely to be the most negatively impacted by the downturn on living standards.

Figure 1 shows this very clearly: inflation rates in May 2022 were higher in cities that entered the crisis in an already precarious position, where lower average wages reflected a weaker economic performance. In these places, people were also more likely to be facing high levels of debt- making it even more difficult to absorb a new shock on costs.⁴

Figure 1: Cities with lower pre-inflation wages are the ones hardest hit by inflation

Estimated inflation and pre-inflation wages

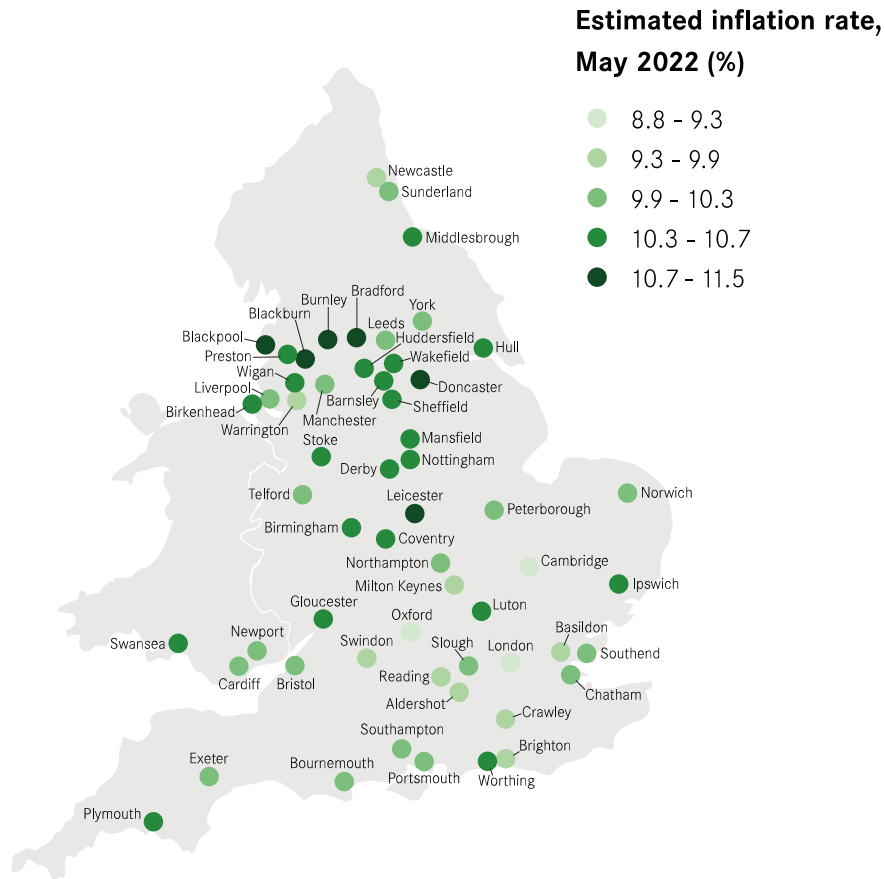


Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details).

Figure 2 shows there is a clear geography to this. Many of the cities and large towns that were facing higher inflation rates in May 2022 were located in the North, Midlands and Wales, while those in the South (particularly in the Greater South East) are relatively more sheltered from rising costs.

Burnley, Blackburn and Blackpool are the hardest hit- with an inflation rate between 11 and 11.5 per cent. This is nearly three percentage points higher than in southern cities like London, Reading and Cambridge. In the latter group of cities, stronger economic performance meant that more people were in high-paid jobs and levels of financial stress were consequently much lower.⁵

Figure 2: Inflation is up to 30 per cent higher in cities in the North



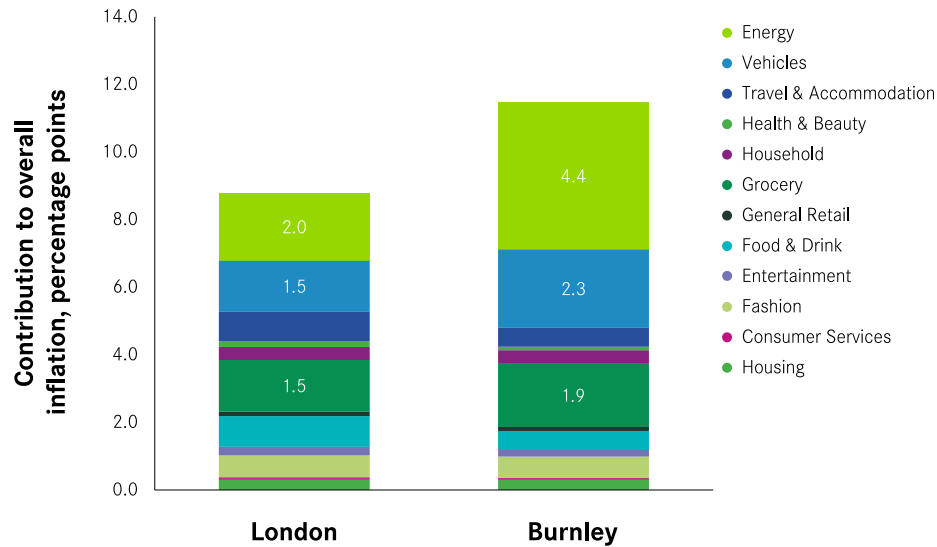
Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details).

Energy and petrol consumption account for most of the differences between places

Take the two cities that sit on each end of the spectrum, with the highest and lowest inflation rate: Burnley and London. Burnley's inflation rate is estimated to be 2.7 percentage points higher than London's. The breakdown of that inflation rate for each city shows that most of the gap is accounted for by the energy and vehicle components (Figure 3). Combined, they accounted for 58 per cent of Burnley's inflation rate (6.7 percentage points), against 40 per cent in London (3.5 percentage points).

Figure 3: The inflation differences between Burnley and London are mostly explained by energy and petrol

Annual inflation estimated composition



Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details).

Burnley is hit particularly hard by the cost of living crisis because it is much more exposed to these two components (energy and petrol), which have by far the highest inflation rate (see Appendix). In Burnley, energy and petrol account for 21 per cent of all spending, against nearly 13 per cent in London.

Burnley and London are representative examples of wider spatial disparities. The reason why a number of cities in the North have higher inflation rates is because these two components, energy and petrol, have a higher weight in their total consumption baskets.

Three reasons explain why that is the case.

The first is the **nature and quality of the housing stock**.

The leakiest, least insulated stock tends to be concentrated in the North. Previous Centre for Cities research has shown that of the 10 cities and large towns with the least energy-efficient housing stock, seven are in the North or the Midlands.⁶ In Burnley and Blackpool, for instance, between 75 and 80 per cent of the housing stock is inefficient (below EPC band C), against less than 60 per cent in London and around 50 per cent in Milton Keynes and Peterborough. Energy bills vary significantly as a result: Table 1 shows that the annual cost of domestic energy can differ by up to £400 per year across cities and large towns.

Box 3: The role of housing stock in the current cost of living crisis

The average annual cost of domestic energy varies significantly depending on the energy efficiency of the dwelling. A dwelling with an Energy Performance Certificate (EPC) band F can cost 7.6 times more than a dwelling within bands A and B. Generally, dwellings that are categorised as energy-inefficient (below EPC band C) tend to be more expensive to run.

Centre for Cities estimates, based on the spatial distribution of efficient and inefficient dwellings for 2019 show how costs vary between cities. Table 1 shows that households paid on average more than £1,150 per year in cities and large towns where more than 70 per cent of the housing stock is below band C, such as Bradford and Blackpool. This can be £300 to £400 higher than Milton Keynes, Crawley or Swindon, where roughly half of the housing stock is below band C.

Table 1: Average domestic energy costs per year (2021), top and bottom 10

City	Ten highest annual costs (2021)	City	Ten lowest annual costs (2021)
1	Burnley £1,272	49	Newcastle £998
2	Blackpool £1,243	50	Sunderland £987
3	Bradford £1,206	51	Basildon £986
4	Southend £1,177	52	Slough £981
5	Swansea £1,148	53	Cambridge £960
6	Birkenhead £1,145	54	Peterborough £959
7	Worthing £1,140	55	Telford £943
8	Birmingham £1,131	56	Swindon £939
9	Blackburn £1,130	57	Crawley £919
10	Derby £1,121	58	Milton Keynes £889

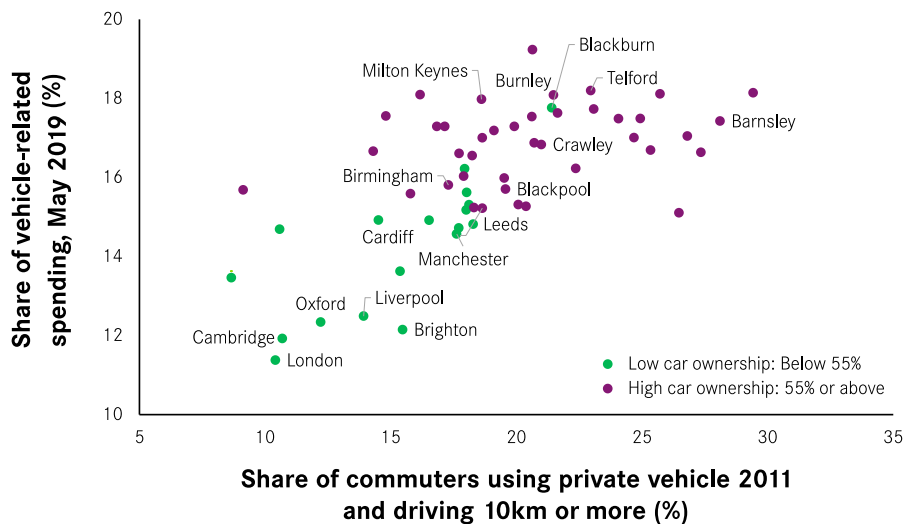
Source: ONS, EPC Certificate, Centre for Cities' calculations. Methodology: Weighted average of annual cost by the distribution of dwelling per band (2019 data). Costs are updated using the "Electricity, gas and other fuels" inflation component (ONS).

As a consequence, an increase of 5 per cent in energy bills would mean an additional cost of £63.6 in Burnley and £44.5 in Milton Keynes.

The second reason is private **vehicle usage, and so spending on petrol**. Cities where households are more reliant on cars to get around are more exposed to increases in fuel prices, particularly when they drive longer distances. This varies between places: as Figure 4 shows, in cities like Barnsley, Telford, or Blackburn, people are much more likely to own a car than in London, Cambridge and Oxford. They are also likely to use them for longer journeys. In Barnsley and Telford, for instance, a fifth and a third of all commuters (respectively) drive more than 10 kilometres. In London and Cambridge, where less than 15 per cent of commuters travel long distance, more people use public transport or active travel (see Figure).⁷

Figure 4: Share of spending on vehicles is highly correlated with the share of commuters using private-vehicles

Vehicle-related spending and commuting



Source: Beauclair; Census (2011); Department for Transport (2020).

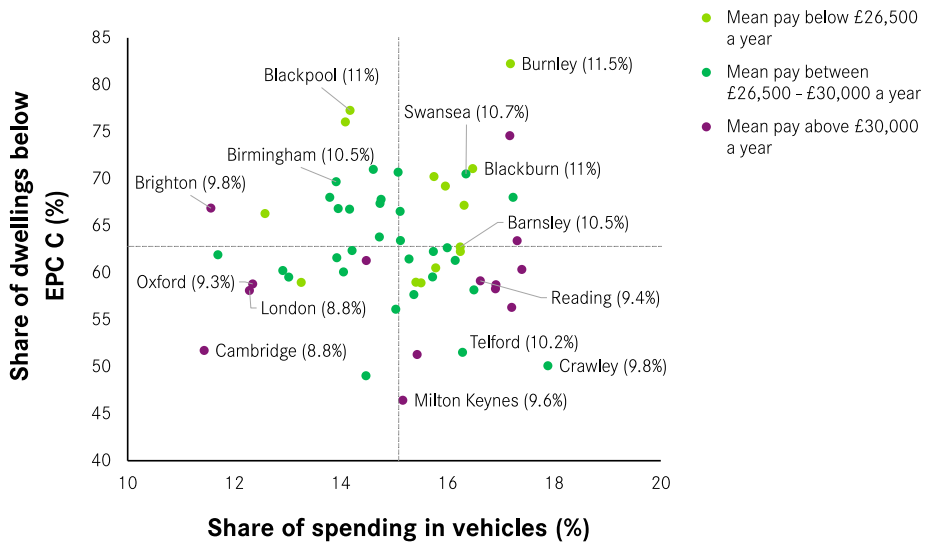
The third reason is related to **income levels**. Poorer households earn less, but heating their homes or driving their car costs the same (or even more, depending on where they live – see Table 2). As a result, they spend a higher proportion of their income on essentials like energy bills, petrol and groceries, sectors where inflation is currently high.⁸ At the national level, it has been estimated that the poorest 10 per cent face an inflation rate of 10.9 per cent, three percentage points higher than the 10 per cent richest.⁹

On domestic heating, the spatial disparities are particularly striking. For many cities in the North, where a higher share of the housing stock is inefficient, heating costs are high and incomes tend to be lower. The result is that costs as a share of wages are much higher than in a number of cities in the Greater South East. Centre for Cities’ estimates shows that average energy costs account for around 6 per cent of average wages in Burnley and Blackpool, compared to 3 per cent in London or Milton Keynes (see further details in Table 5, Appendix).

Figure 5 summarises how these factors play out across the country. The cities that tend to have higher mean wages, a more energy-efficient housing stock, and a lower proportion of their residents’ income spent on fuel tend to have a lower inflation rate (bottom left). It’s the opposite for those in the top-right quadrant, most of which are in the North.

Figure 5: A combination of low incomes, poor energy stock and a high share of vehicle-related spending explains why most cities in the North and Midlands face higher inflation

Inflation and main exposure factors



Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities’ calculations (See methodology Box 2 for further details).

02

Wage growth has failed to keep pace with inflation

High inflation is only one side of the equation. Assessing the impact rising costs have on living standards requires an understanding of how inflation compares with nominal wages growth. When prices grow faster than nominal wages, consumer spending power is squeezed.

Table 2 looks at how average nominal wages have changed in the past year across cities. While the geography is not particularly clear-cut (although a number of cities that have experienced the highest wage growth are in the Greater South East), the scale varies significantly between places- ranging from more than 7 per cent of wage growth between Ipswich and Swindon to less than 3 per cent in Bournemouth and York.

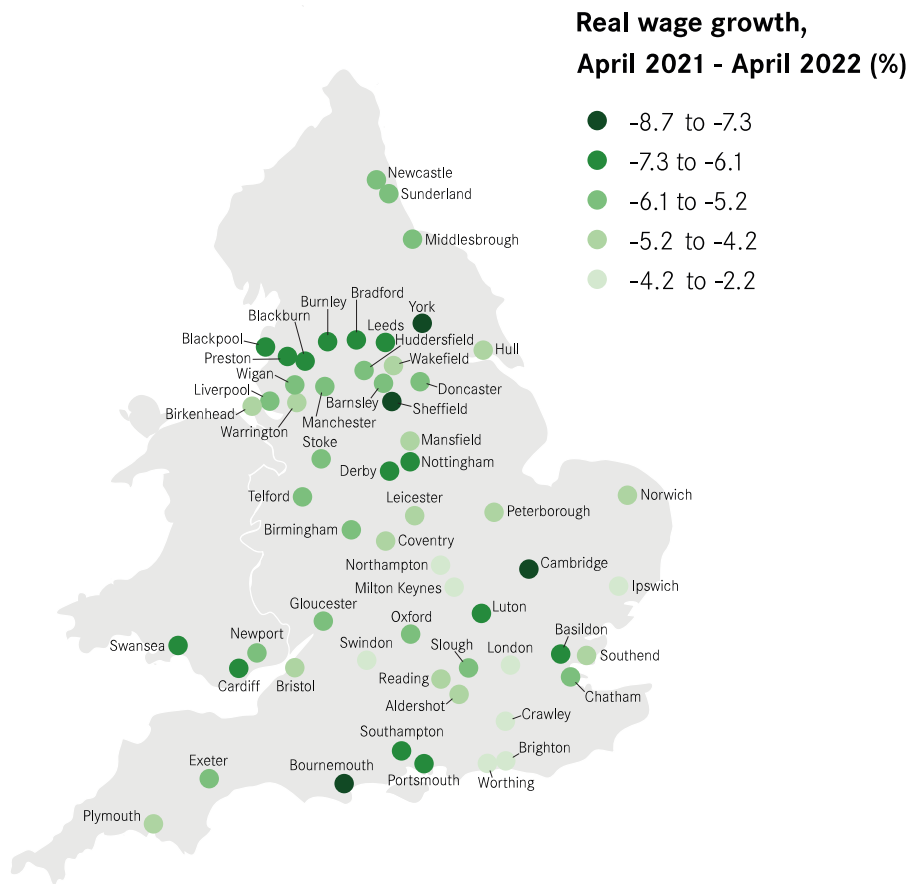
Table 2: Cities with the strongest nominal wage growth in the last tend to be located in the South of England

Top 10	Mean wages annual growth (%) April 2021 – April 2022	Bottom 10	Mean wages annual growth (%) April 2021 – April 2022
1 Ipswich	7.7	49 Swansea	3.2
2 Swindon	7.3	50 Portsmouth	3.2
3 Northampton	6.8	51 Oxford	3.1
4 Crawley	6.7	52 Leeds	3.0
5 Worthing	6.7	53 Basildon	2.7
6 London	6.2	54 Cardiff	2.6
7 Milton Keynes	6.1	55 Sheffield	2.2
8 Brighton	5.9	56 Bournemouth	2.0
9 Norwich	5.5	57 York	1.5
10 Peterborough	5.5	58 Cambridge	-0.7

Source: HMRC, PAYE: seasonality adjusted mean to pay.

But once these average nominal wage growth rates are adjusted to inflation, both the scale and the geography of the cost of living crisis become clear again. In real terms, wages have fallen everywhere in the past year, but the cities that combined low nominal wage growth and high inflation rates experienced a particularly severe downturn. As Figure 6 shows, many of these are located in the North – like Burnley, Blackpool or Barnsley, where real wages fell by nearly 7 per cent. Cambridge and Bournemouth are exceptions to this but as Table 2 shows, this is explained by sluggish (and even negative in Cambridge’s case) nominal wage growth, not by high inflation rates.

Figure 6: Cities where the real mean wages have declined the least are typically located in the South of England



Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details).

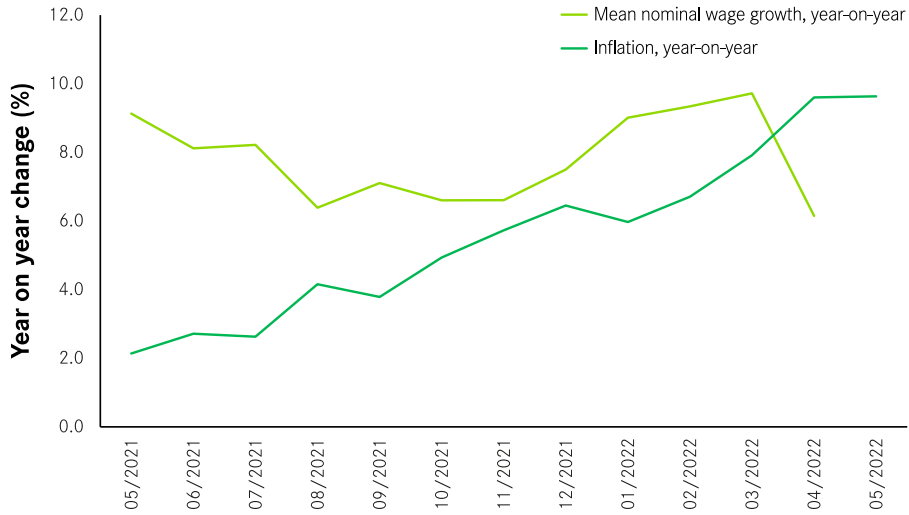
The wider the discrepancy between nominal wages growth rate and inflation rate, the larger the fall in real wages. Figure 7 illustrates how these dynamics play out – using Milton Keynes and Blackpool as an example.

In Milton Keynes, nominal wages in April 2022 were about 6 per cent higher than in April 2021. However, with an inflation rate at 9.6 per cent, prices rose at an even faster pace and over that year, real wages fell by more than 3 per cent.

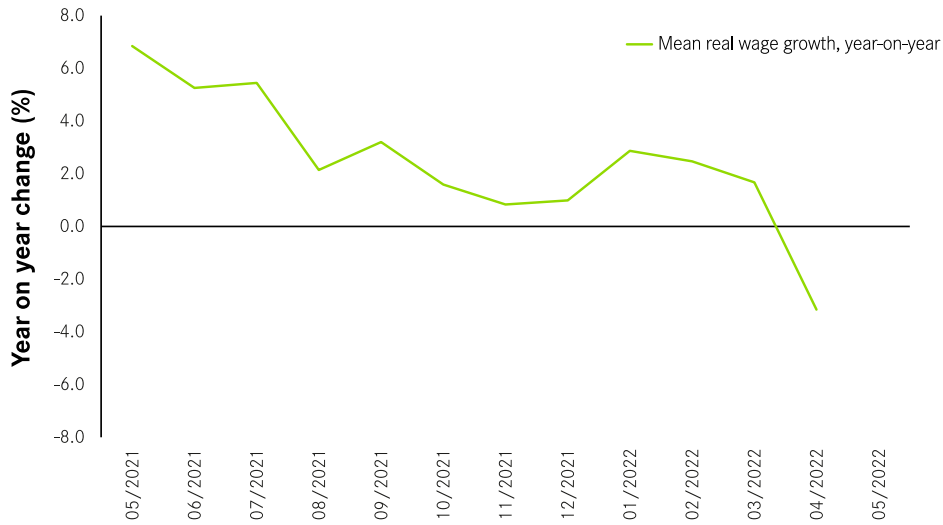
In Blackpool, this divergence between inflation rate and nominal wage growth is even greater, as the city is doing worse than the national average on both counts. The result is that real wages fell by nearly 7 per cent between April 2021 and April 2022, more than double the rate in Milton Keynes.

Figure 7: Cities where nominal wages and inflation rates diverge the most are the hardest hit

Milton Keynes

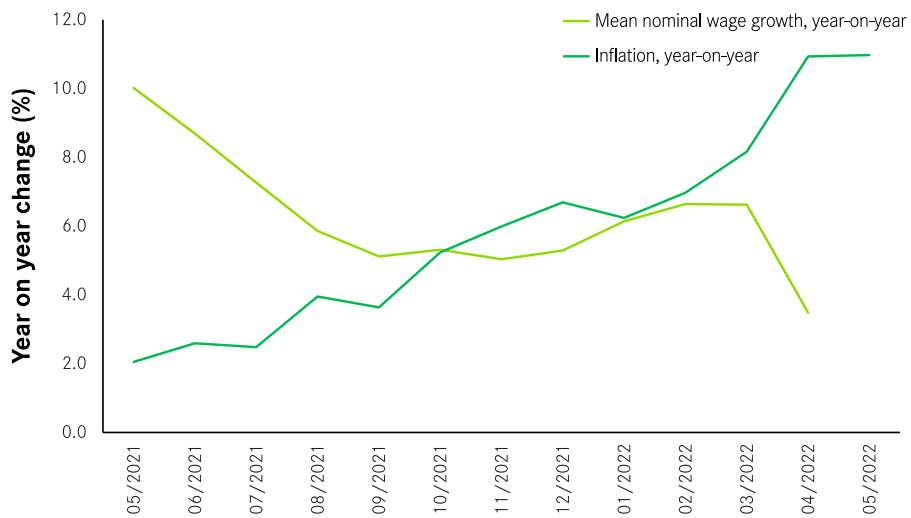


Milton Keynes

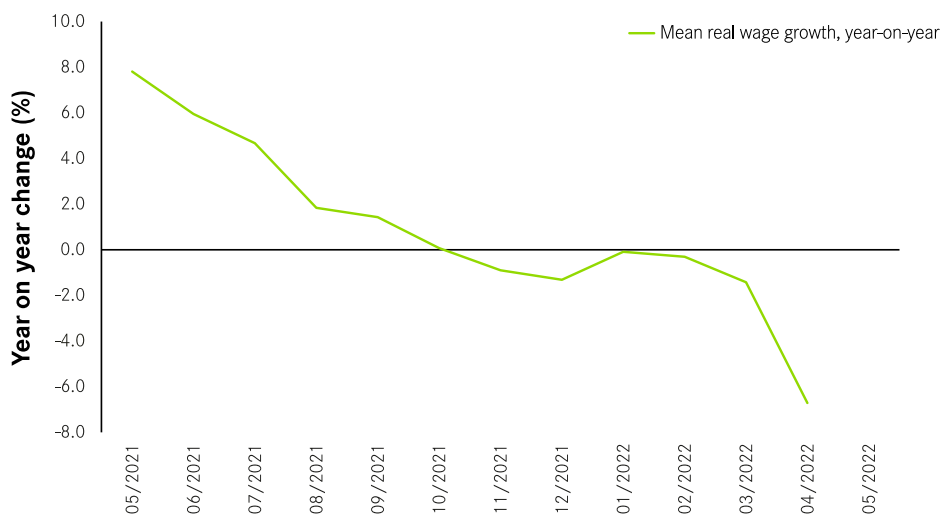


Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details). Note: high wage growth in May 2021 is distorted by the 2020 base, during which many people were on furlough.

Blackpool



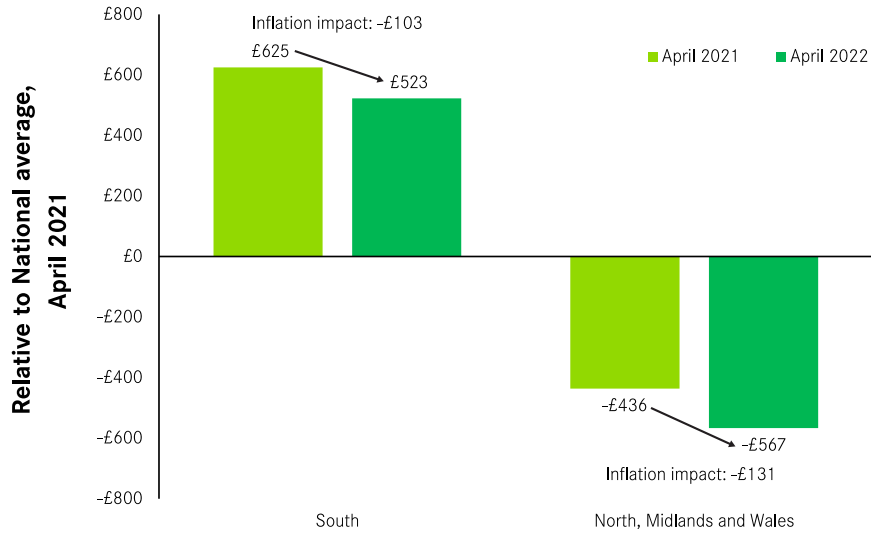
Blackpool



So how does this translate into absolute spending power? All places are worse off, but those where wages were already well below average before the cost of living crisis are the hardest hit. There is a clear geography to it: Figure 8 shows that as of April 2022, workers in the **North, Midlands and Wales were on average £131 a month poorer (a 5.8 per cent decrease) than in April 2021**; compared to workers in the **South who were around £103 worse off than in May 2021 (3.1 per cent decrease)**.¹⁰

Figure 8: Cities in the poorest areas are the ones where real wages declined the most

Mean real wages (April 2021 prices)



Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculations (See methodology Box 2 for further details).

In aggregate terms, inflation reduced April 2022 wages in the North, Midlands and Wales by around £915 million (since April 2021), compared to approximately £750 million in the South of England. The loss of spending power in the North, Midlands and Wales is roughly the equivalent of Sheffield's entire monthly wage bill in April 2022 and two times the total monthly wages paid in Brighton.

03

In most places, the Government support package isn't enough to offset inflation

The Government recently announced a package of £15 billion to support households with increasing energy costs. Amongst other measures, it includes a £400 flat payment for all households, an extra £650 for those on benefits and £300 to support pensioners. This is not the only package announced by the Government but it is the most comprehensive (as it supports all households), it specifically targets energy bills, and is designed to help poorest households more.

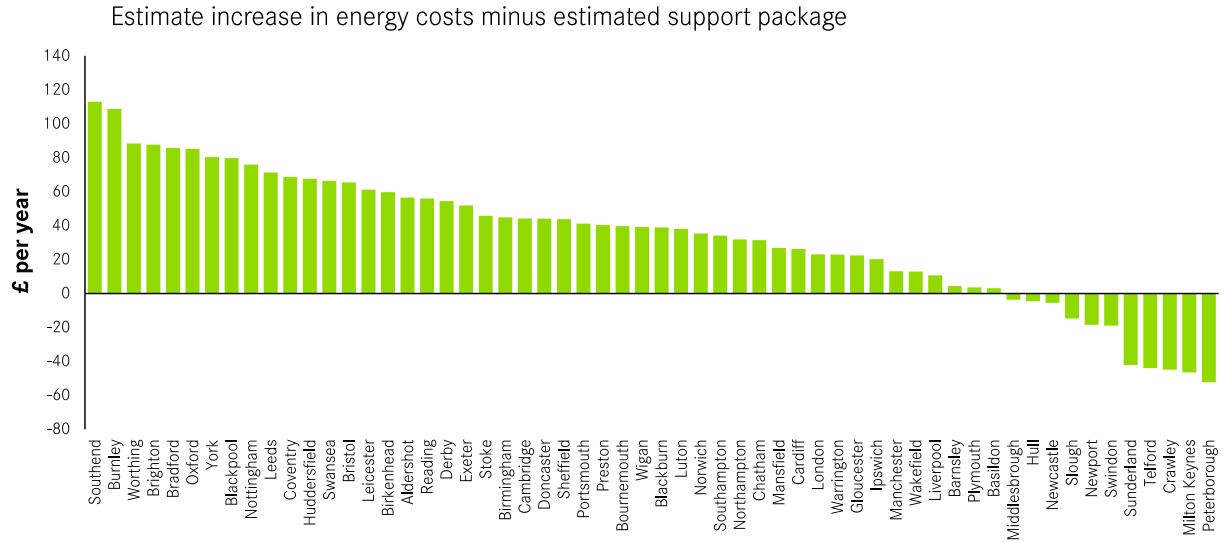
The relief the package gives varies across the country. Previous Centre for Cities research has shown that it broadly matches the North-South divide set out above: cities in the North and Midlands are likely to receive a higher amount of support than cities in the South because a higher proportion of their residents are either benefit recipients or pensioners.¹¹

How much support the package offers differs across cities. As Figure 9 shows, there are only eleven cities where the average support offsets the average increase in energy costs. These are Middlesbrough, Hull, Newcastle, Slough, Newport, Swindon, Sunderland, Telford, Crawley, Milton Keynes, and Peterborough.

In the remaining 47 cities, the Government's package will not cover the average increase in energy costs. This is because its criteria are not based on actual energy needs and do not consider the fact that energy demand is influenced by the energy efficiency of the housing stock. Estimates suggest that the average household in Burnley or Bradford is expected to pay an additional £85-£115 a year, compared to £23 in London or £4 in Plymouth.

Unless more support is provided, and targeted towards those whose actual energy costs are expected to increase the most, many of these places in the North are also likely to see energy bills jump even higher when the October price cap is lifted next October.

Figure 9: The cost of living package in most cities is estimated to be below the increasing energy costs



Source: ONS; Beauclair; DWP; EPC Certificate; HMRC (PAYE); Centre for Cities' calculations. Methodology: Estimated share of residents receiving benefits or pensions uses November 2021 DWP data, divided by the most recent population figures from ONS (2020). The increase in annual energy costs is calculated to increase by 54 per cent between April 2022 and September 2022 and by 40 per cent between October 2022 and March 2023 based on Ofgem statements.¹²

These figures are for the average resident of a city. They do not mean that all residents in London and Plymouth will be protected from the rising energy costs. Those who live in energy-inefficient housing in these places are still likely to face net increase in energy costs, even after receiving Government packages.

04

What needs to change?

Every corner of the UK is experiencing a cost of living crisis but the burden will be felt unevenly across places. Those who live in cities and large towns in the North and the Midlands, many of whom entered the crisis in an already precarious position, are likely to see their financial situation deteriorate more than average, and more than cities and large towns in the South.

The Government's recently announced support initiatives are welcome and they will partially shelter the most vulnerable from a substantial pressure on costs. However, they will not be enough to support households in fuel stress whose demand for energy is particularly high, either because they rely on cars, or because they live in poorly-insulated housing.

In the **short term**, the Government should do more to help people weather the storm and support them with their immediate spending needs. This can be done by:

- **Increasing benefits now to bring them in line with inflation.** Universal Credit payments rose by 3.1 per cent in April, which is far from the near-10 per cent inflation rate. This is because benefits rates are aligned with the Consumer Price Index from the previous year, which means that under the current system, inflation and the energy price cap rise will not be reflected in benefits until April 2023. This will be too late for many households already in fuel stress. It has been estimated that this mismatch is equivalent to a one-off £11 billion cut to benefits and that bringing Universal Credit in line with inflation could provide more than 4 million households with an average of £739 extra support over the next year.¹³
- **Reintroducing the £20 uplift** for Universal Credit for the 5.9 million people that are currently on benefits. It would correspond to an extra £1.4 billion a year for benefits on top of the inflation adjustment. By showing that struggling cities are facing higher inflation levels, this research suggests that lower income individuals are likely to face higher inflation. Therefore, the reintroduction of the universal credit uplift would be a way of sheltering Universal Credit claimants from higher inflation than national average.¹³

- Providing households living in dwellings below **EPC band C with a one-off payment** to help them face soaring energy bills. The existing support measures do not target different energy needs. The amount would vary depending on the existing energy grade of the dwelling and would seek to offset the impact of inflation (from £150 for dwellings rated D to £350 for those rated G and below).

There are also **medium to long-term** policy priorities, beyond immediate emergency support. None of these would solve the current crisis, but if implemented now, they could help mitigate the impact of future inflationary shocks.

- The first is to **accelerate the retrofit agenda**, to reduce demand for energy, cut energy bills and make households less vulnerable to volatile energy prices.

To do so, the Government should **reintroduce the Green Homes Grant Scheme**, a £2 billion programme which offered households grants up to £5,000 (£10,000 for low-income households) to install energy efficiency measures that cut both energy bills and domestic carbon emissions.

The Government should also be bringing forward the **Future Homes Standards** regulation (now delayed to 2025), to ensure new homes are compliant with stricter energy efficiency standards and will not have to be retrofitted in the future.

- The second is to **encourage growth of the economy generally** and, more specifically, to 'level up'. In the long term, the way to counter cost of living rises is to increase the amount of prosperity that is available. This report has shown that this is particularly a problem in many northern cities – something which February's Levelling Up White Paper identified as an issue to tackle. As yet, there has been very little policy implementation that seeks to address this challenge. The Government should start implementing the agenda it has set out.

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Appendices

Table 3: Correspondence between spend data and CPI components and respective inflation rate and weighting

Consumption basket	ONS categories	Inflation rate (%)	Weight (%)
Housing	Actual rentals for housing	2.9	10
Energy	Electricity, gas and other fuels	69.6	2.9-6.2
Consumer Services	Regular maintenance and repair of the dwelling; miscellaneous goods and services	3.1	83.8-87.1
Entertainment	Recreational and cultural services	6.1	
Fashion	Clothing and footwear	8.3	
Food & Drink	Catering services	7.5	
General Retail	Audio-visual equipment and related products; other major durables for recreation and culture	2.0	
Grocery	Food and non-alcoholic beverages; alcoholic beverages and tobacco	6.0	
Health & Beauty	Health; Personal care	2.9	
Household	Furniture, household equipment and maintenance; other recreational items, gardens & pets	10.3	
Travel & Accommodation	Accommodation services; package holiday	10.1	
Vehicles	Operational of personal transport equipment; purchase of vehicles	15.3	

Source: ONS; Beauclair; EPC Certificate, HMRC (PAYE), Centre for Cities' calculation. The categories above account for 86.8 per cent of the ONS inflation basket and its inflation rate (as of May) is relatively similar to the whole basket.

Table 4: Inflation weights by component, excluding housing and energy

Consumption component	Minimum contribution (%)	Maximum contribution (%)
Consumer Services	1.4	3.4
Entertainment	2.2	5.5
Fashion	6.5	10.4
Food & Drink	5.2	9.2
General Retail	8.0	11.1
Grocery	25.8	30.6
Health & Beauty	3.0	6.6
Household	5.2	8.7
Travel & Accommodation	2.1	5.2
Vehicles	9.9	15.4
Sum (Other goods and services)	83.7	87.1
Energy	2.9	6.3
Housing	10.0	10.0

Source: Beauclair; ONS.

Table 5: Average domestic energy costs per year as a share of net wages (2021), top and bottom

	City	Ten highest annual costs 2021 (%)		City	Ten lowest annual costs 2021 (%)
1	Burnley	6.2	49	Slough	3.9
2	Blackpool	5.8	50	Crawley	3.8
3	Bradford	5.7	51	Swindon	3.7
4	Blackburn	5.6	52	Oxford	3.6
5	Hull	5.4	53	Basildon	3.6
6	Leicester	5.2	54	Aldershot	3.4
7	Stoke	5.2	55	Milton Keynes	3.3
8	Doncaster	5.2	56	Reading	3.1
9	Swansea	5.2	57	London	2.9
10	Birmingham	5.1	58	Cambridge	2.9

Source: ONS, EPC Certificate, Centre for Cities' calculations. Methodology: Weighted average of annual cost by the distribution of dwelling per band (2019 data). Costs are updated using the "Electricity, gas and other fuels" inflation component (ONS).

Endnotes

- 1 This is similar to the methodology used by the ONS to calculate inflation rate estimates for different household groups.
- 2 The national figure was kept here, due to a lack of data on how much residents spend in housing costs across different cities.
- 3 This is estimated by computing the average energy cost (EPC Distribution by certificate type * Domestic Annual Cost by energy type); and dividing it by mean net pay, which is induced from gross pay at the resident level (HMRC PAYE data). EPC Certificate data is from 2019 and price-adjusted to 2021 using the energy component of CPI (12.3 per cent between 2019 and 2021).
- 4 See Narayan, K. (2020) Household debt and problem debt in British Cities. London: Centre for Cities.
- 5 Previous Centre for Cities research has also shown that more affluent places like Cambridge and London have also (on average) seen higher levels of savings during the Covid-19 pandemic, providing people with an extra cushion to fall back when the cost of living crisis hit. See Magrini, E. and Sells, T (2021), An uneven recovery? How Covid-debt and Covid-saving will shape post-pandemic cities, London: Centre for Cities. PLUS.
- 6 Quinio, V and Rodrigues, G (2021), Net zero: decarbonising the city. London: Centre for Cities.
- 7 Commuting data from Census (2011).
- 8 This plays an important role within cities too. The poorest households are more likely to spend a higher share of their income on essentials like energy. As a result, they are likely to feel higher inflation even in they live in cities with comparatively lower inflation. Unfortunately, the methodology used here does not allow to generate inflation estimates by income levels within a city but evidence at the national level supports the idea that inflation rates are higher for the poorest households.
- 9 Institute for Fiscal Studies, May 2022.
- 10 These estimates do not represent the whole population of each city as they do not include self-employed; pensioners and benefits recipients.
- 11 Rodrigues, G. Which cities will receive the most support from the Chancellor's cost of living package? 2022, Centre for Cities.
- 12 Further details: <https://commonslibrary.parliament.uk/research-briefings/cbp-9491/>
- 13 Resolution Foundation, 2022.
- 14 Resolution Foundation, 2022.

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