

REPORT

Putting food inflation on a diet

How healthier diets have reduced exposure to rising food prices and climate-related shocks

Executive Summary

Food inflation has not been evenly distributed across the supermarket basket. In recent years, some of the sharpest price rises have been concentrated in foods that the average British household consumes more of than is recommended by dietary guidelines, including meat, chocolate and some dairy products. At the same time, extreme weather has increasingly disrupted agricultural production in the UK and overseas, adding to price pressures for a number of these foods.

This report models what food inflation would have looked like for a household whose spending was more closely aligned with the Eatwell Guide. It compares two price indices built from exactly the same ONS food price data: one using current expenditure weights and another giving less weight to foods such as meat, dairy, chocolate and confectionery, and more to fruit, vegetables and fish. Differences between the two therefore reflect what households buy, rather than different assumptions about prices.

The results suggest that healthier, more balanced diets have provided meaningful protection from recent food inflation. Over 2025, prices rose 4.5% for the standard basket compared with 2.7% for the balanced basket - 40% less inflation. The Eatwell-aligned basket experienced lower inflation in every month of 2025, with the gap widening through the year, reaching 2.1 percentage points in October, when standard food inflation was 4.9% compared with 2.8% for the healthier basket.

Chocolate was the single largest individual contributor, accounting for 32%¹ of the downward pressure on inflation. Chocolate prices have risen dramatically in recent years, following extreme weather in West Africa, where Côte d'Ivoire and Ghana account for around 60% of global cocoa production.

Meat was one of the most important contributors to lower inflation in healthy basket. Meat categories accounted for around 22% of the downward pressure on inflation over 2024 and 2025. Beef and veal alone accounted for 9%, and lamb and goat a further 6%, meaning together they contributed almost 15% of the downward pressure. Both experienced average year-on-year inflation of around 10% over the period.

Meat prices have been among those most exposed to recent climate-related disruption. Wet weather, drought and heat have reduced pasture availability, increased feed costs and contributed to falling cattle and sheep numbers, which - for biological reasons - can take a long time to rebound once cut. As a result, beef prices have risen more than a quarter since January 2024, while separate impact modelling found that lamb prices were pushed around 15% higher following the wet winter of 2023-24 and 21% higher following the 2025 drought.

¹ For clarity, chocolate accounted for 32% of the combined downward pressure on inflation from all categories whose contribution was negative. Categories that increased inflation are not included in this calculation, even though they partially offset the overall reduction in inflation.

Other foods also contributed to lower inflation, including bakery products, confectionery and soft drinks. These effects were partly offset by higher inflation exposure elsewhere in the Eatwell-aligned basket, particularly among fruit, vegetables and cereals.

Taken over a longer period, these differences add up. Since the start of 2021, prices in the standard food basket increased by 40%, compared with 35% for the Eatwell-aligned basket. For a household spending a typical amount on food - £70 per week in 2021 - the lower inflation associated with the Eatwell-aligned basket amounts to spending around £520 less since the start of 2022. In 2025 alone this would have amounted to a saving of around £190.

The findings do not suggest that climate change caused the entire inflation gap between the two diets. The model shows how different spending patterns alter households' exposure to the food price increases that occurred, while evidence linking specific commodities to climate impacts is assessed separately. Even so, many foods exposed to recent climate-related price pressures are also consumed in greater quantities than dietary guidelines recommend. Chocolate and meat - especially beef and lamb - accounted for a disproportionate share of the inflation gap between the two baskets.

The implication is that healthier diets may offer benefits beyond health alone. By consuming less of the foods that have seen the largest price increases in recent years, a balanced diet would have left households less exposed to rising food costs. As climate change increases the frequency and severity of weather shocks affecting food production in the UK and around the world, the resilience benefits of healthier diets may become increasingly important. Put simply, households eating more in line with dietary guidelines would not only have likely been healthier, but would also have faced lower food inflation and greater protection from climate-related food price shocks.

A tale of two waves

UK food inflation over the past five years

Climate change has become an increasingly important influence on food inflation. The initial food-price surge that followed Russia's invasion of Ukraine was strongly associated with soaring energy, fertiliser and other input costs - though climate impacts did play a [significant role](#) (ECIU, 2023). As these pressures eased, extreme weather continued to disrupt agricultural production in the UK and overseas, pushing up food prices to such an extent that both the [Bank of England](#) and [European Central Bank](#) highlighted its impact on food prices in 2025.

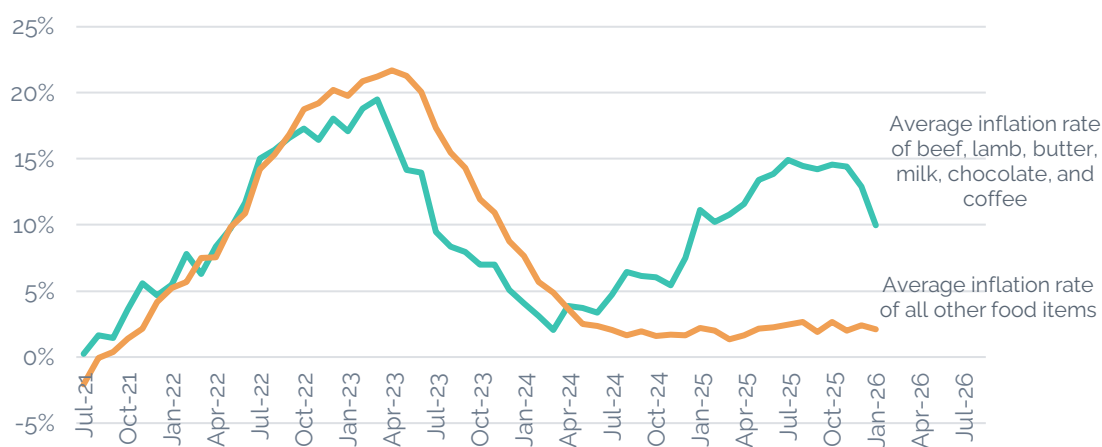
These effects have been particularly noticeable in certain foods. Previous analysis identified **butter, beef, milk, coffee and chocolate** as five foods where price pressures have been significantly affected by [climate impacts](#) (ECIU, 2026). A more recent impact assessment has added lamb to that list, showing that lamb prices were pushed up 15%

higher than they otherwise would have been following the wet winter of 2023–24, and [21% higher following the 2025 drought](#) (Zero Carbon Analytics & ECIU, 2026).

Looking at the inflation experienced by these items since the start of the cost-of-living crisis in July 2021 clearly illustrates this dynamic. The initial energy shock affected food prices across the basket, with inflation in both the most climate-affected foods and the rest of the basket broadly rising together.

A small basket of goods is driving food inflation

Figure 1: Average inflation rates of parts of the food basket, 2021–26



Source: ECIU analysis of ONS Consumer Price Indices, averages are unweighted

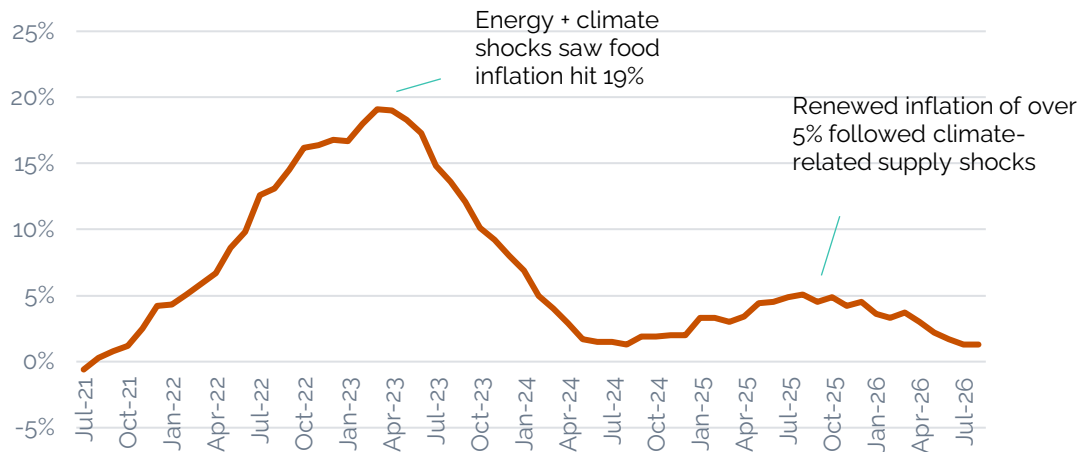
From the winter of 2023–24, however, the two groups began to diverge. A succession of extreme weather events disrupted production at home and abroad. The 2023–24 El Niño coincided with exceptionally wet conditions in the UK, while the following years brought repeated periods of record heat and drought. These shocks affected grazing, crop yields and dairy production in the UK, while extreme weather overseas, made more likely by human-caused climate change, hit major commodities including cocoa and coffee.

From December 2024 to March 2026, the average inflation rate of the most climate-affected foods identified above was 12% - **six times** the 2% average seen across the rest of the food basket.

The ways in which extreme weather made more likely by climate change have impacted impacts on individual foods are examined in Appendix 1, but the overall effect for British consumers was a succession of shocks. The first inflationary wave, driven by [both energy and climate impacts](#), pushed up prices 31% in just 3 years to from July 2021. By 2026, food prices were around 40% higher, with further climate-related shocks adding to existing pressures.

Waves of inflation have battered consumers

Figure 2: Food and non-alcoholic drink annual inflation rate, 2021-26



Source: ECIU analysis of ONS Consumer Price Indices

All of these foods, aside from coffee, are foods that the typical British household consumes more of than is advised by health guidelines. In the next chapter we look at this more closely, examining how those following healthier diets would have been less exposed to recent food-price shocks - particularly those linked to climate change.

Healthier diets have seen less climateflation

Our analysis compares two food price indices constructed using the same ONS price data. The first uses published ONS expenditure weights, reflecting the current food basket. The second reweights that same basket towards a diet more closely aligned with the [Eatwell Guide](#) (NHS): lower in meat, dairy, chocolate, and confectionery, and higher in fruit, vegetables and fish.

This means that any difference between the two indices is entirely the result of household shopping habits, rather than different assumptions about how individual food prices have changed.

The results suggest that these differences in diet composition matter. Since the start of 2021, prices in the standard food basket increased by 40%, compared with 35% for the more balanced basket. That is a 5 percentage points smaller increase in prices, equivalent to around 13% less cumulative food inflation.

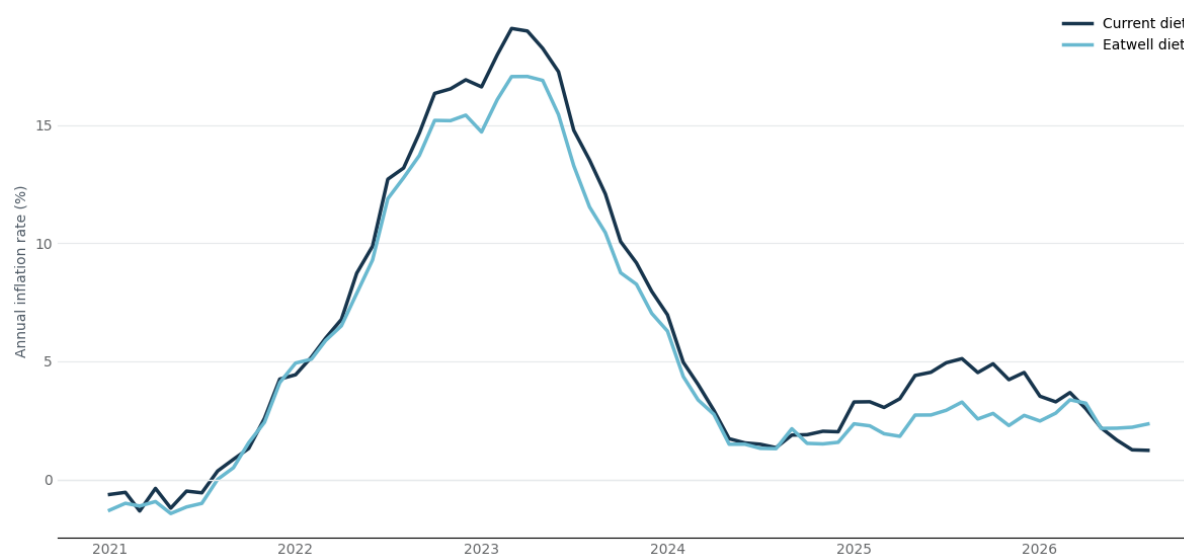
Figure 3: The difference between a standard and an Eatwell-aligned diet, consumer basket weights 2026

Food type	Current diet share, %	Eatwell-aligned share, %	Change, p.p.
Chocolate	5.8	1.0	-4.8
Other bakery products	7.7	3.4	-4.3
Cheese and curd	3.6	0.7	-2.9
Poultry	2.5	0.2	-2.3
Soft drinks	5.0	2.7	-2.3
Beef and veal	2.2	0.6	-1.6
Lamb and goat	1.6	0.5	-1.1
Other preserved/processed fish and seafood	1.7	6.3	+4.6
Frozen seafood	0.8	2.8	+2.0
Fresh fish	0.8	3.0	+2.1
Fresh fruit	3.1	6.2	+3.1
Bread	3.8	7.6	+3.8
Fresh vegetables	1.8	6.3	+4.5

Source: ECIU analysis of the modelling done of the Eatwell diets, National Diet and Nutrition Survey 2019-21 and ONS Consumer Price Indices, 2026

The gap was notable in 2024 and 2025. Across the two years, food prices increased at a compound annual rate of 3.3% for the standard basket, compared with 2.1% for the Eatwell-aligned basket. This is about 34% smaller. Over 2025 alone, prices rose 4.5% for the standard basket compared with 2.7% for the Eatwell basket - 40% less inflation.

Figure 4: Average inflation rates of parts of the standard vs Eatwell-aligned diet, 2021-26



Source: ECIU analysis

The pattern is consistent with the wider climate-induced inflation story identified in this report. A healthier diet gives lower weight to several products that experienced

particularly rapid price increases, while putting more weight on some products whose prices rose more slowly or fell.

This should not be interpreted as meaning that the entire inflation difference between the two baskets was caused by climate change. Rather, it shows that changing the composition of the food basket can alter households' exposure to the products experiencing the strongest price pressures – including several foods whose recent supply and prices have been affected by extreme weather and other climate-related disruption.

2024: a modest but persistent inflation advantage

The benefits of the healthier basket were already visible in 2024, although the difference was relatively modest. At the beginning of the year, when food inflation was still falling back from the very high rates reached in 2022 and 2023, the difference was larger. In January 2024 food inflation was 7.0% in the standard basket, compared with 6.3% in the Eatwell basket – a gap of 0.7 percentage points.

As overall food inflation subsided during the middle of the year, the difference between the diets narrowed. The Eatwell basket experienced lower inflation in 11 of the 12 months of 2024, with September the only exception: standard-basket inflation was 1.9%, compared with 2.1% for the Eatwell basket.

But the gap opened again towards the end of the year. By December, annual food inflation was 2.0% for the standard diet but only 1.6% for the Eatwell-aligned diet. The Eatwell rate was therefore around 22% lower over the year. The 2024 results therefore point to a modest but persistent benefit from the healthier basket. The much bigger divergence came the following year.

2025: the gap widens sharply

In 2025 the inflation advantage associated with the healthier diet became substantially larger. Over the year, the price of the standard food basket rose by 4.5%, compared with 2.7% for the Eatwell-aligned basket. This means the Eatwell basket experienced **40% less inflation** and around 70% closer to the Bank of England's 2% target².

The balanced basket experienced lower inflation in every month of 2025. In January, food inflation stood at 3.3% for the standard basket and 2.4% for the Eatwell basket, already a difference of around 0.9 percentage points. The divergence then increased as the year progressed.

By June, standard-basket inflation had reached 4.5%, compared with 2.7% for the healthier basket. In August, when standard food inflation reached 5.1%, the inflation rate for healthier Eatwell-aligned diets was only 3.3%. The absolute gap was largest in

² Note that the Bank's target is for CPI inflation, not for any individual components, such as food and drink.

October. Standard-basket food inflation was 4.9%, compared with 2.8% under Eatwell weights – a difference of 2.1 percentage points.

Chocolate and meat explain much of the difference

The lower inflation experienced by the Eatwell-aligned basket was driven by a relatively small number of foods. Chocolate was by far the single largest contributor, accounting for 32%³ of the downward pressure on inflation over 2024 and 2025. Chocolate had a 4.8 percentage point smaller share of the Eatwell-aligned basket and experienced average year-on-year inflation of 12.5% over the period.

Confectionery accounted for a further 6%. Taken together, lower expenditure shares for chocolate and confectionery accounted for almost 38% of the downward pressure on inflation in the Eatwell-aligned basket.

Meat was the second major source of downward pressure, with meat categories collectively accounting for around 22% of the lower inflation. Beef and veal alone accounted for 9%, with their share of the balanced basket 1.6 percentage points lower than in the standard basket. Lamb and goat contributed a further 6%, with both categories experiencing average year-on-year inflation of around 10% over the period.

Other meat preparations accounted for 4% of downward pressure, pork 2%, and poultry 2%. Beef and lamb alone therefore accounted for almost 15% of the downward pressure on inflation.

Other discretionary foods also played a role. Lower weighting of bakery products accounted for 9% of downward pressure, soft drinks 5%, crisps 3%, and fruit and vegetable juices 2%. Lower exposure to some dairy products also helped. Butter accounted for 4% of downward pressure, cheese and curd 2%, yoghurt 1%, and other milk products 1%.

The lower inflationary pressure did not come only from eating less of foods experiencing high inflation. The balanced diet also gave greater weight to some foods whose prices were falling. Frozen seafood had a 2 percentage point larger share of the Eatwell basket and experienced average deflation over 2024–25, accounting for 4% of downward pressure. Preserved and processed fish and seafood had a 4.6 percentage point larger share, alongside average inflation of –1.6%. Together, these two fish categories accounted for almost 8% of the downward pressure on inflation.

³ For clarity, chocolate accounted for 32% of the combined downward pressure on inflation from all categories whose contribution was negative. Categories that increased inflation are not included in this calculation, even though they partially offset the overall reduction in inflation.

Figure 5: The 20 largest contributors to downward pressure on inflation in the Eatwell-aligned basket, 2024 - 2025

Rank	Food type	Change in basket share (pp)	Average annual inflation (%)	Share of reduction contributions (%) (excluding offsetting components)
1	Chocolate	-4.8	12.5	32.1
2	Other bakery products	-4.3	4.0	8.9
3	Beef and veal	-1.6	10.1	8.6
4	Lamb and goat	-1.1	10.1	6.1
5	Confectionery products	-1.8	5.8	5.7
6	Soft drinks	-2.3	3.8	4.7
7	Frozen seafood	2.0	-3.8	4.0
8	Other preserved or processed fish and seafood-based preparations	4.6	-1.6	3.8
9	Other meat preparations	-2.2	3.2	3.7
10	Butter	-0.8	7.5	3.7
11	Crisps	-1.5	3.5	2.8
12	Fruit and vegetable juices	-0.9	5.2	2.4
13	Eggs	-1.1	3.6	2.1
14	Pork	-0.8	4.8	2.0
15	Cheese and curd	-2.9	1.1	1.8
16	Poultry	-2.3	1.4	1.6
17	Yoghurt	-0.8	1.7	0.8
18	Sugar	-0.4	2.9	0.8
19	Edible ices and ice cream	-0.4	3.5	0.8
20	Other milk products	-0.3	3.7	0.6

Note: Percentage shares represent each category's contribution to total downward pressure on inflation, before accounting for offsetting upward pressure from other foods.

The concentration of these effects is striking. The five largest individual contributors accounted for more than 61% of the downward pressure on inflation, while the 20 categories shown in Figure 5 accounted for approximately 97%. This echoes the first chapter's finding that a relatively small group of foods has been particularly important in driving recent inflation.

The downward pressure from reduced spending shares for foods such as chocolate and meat was partly offset by higher inflation exposure elsewhere in the Eatwell-aligned basket. Greater weighting of fresh fruit and vegetables accounted for just over half of all offsetting upward pressure, while breakfast cereals, dried fruit and nuts, potatoes and bread also made important contributions. Although these foods received greater weight in the healthier basket, their prices were generally rising over 2024–25, partially offsetting

the inflation advantage associated with lower consumption of meat, chocolate and other foods experiencing rapid price increases.

Figure 6: The 10 largest contributors to higher inflation in the Eatwell-aligned basket, 2024–25

Food category	Change in basket share (pp)	Average annual inflation (%)	Share of total offsetting pressure (%)
Fresh or chilled fruit	+10.5	2.8	32.8
Fresh or chilled vegetables	+4.5	3.7	18.4
Breakfast cereals and other cereal products	+3.2	3.4	12.0
Dried fruit and nuts	+1.6	6.2	11.4
Potatoes	+2.0	4.0	8.8
Bread	+4.0	1.7	7.6
Fresh or chilled fish	+2.2	1.1	2.6
Jams, marmalades and honey	−0.6	−2.8	2.1
Preserved fruit and fruit-based products	+0.6	2.1	1.4
Frozen vegetables	+0.4	3.0	1.3

Note: Percentage shares represent each category's contribution to total offsetting upward pressure, rather than to the overall net inflation difference. Both tables are based on approximate component contributions calculated from monthly year-on-year inflation rates and differences in basket expenditure shares.

These results illustrate that diet can materially affect households' exposure to food-price shocks. Households purchasing a healthier mix of foods would have experienced substantially less food inflation – particularly during the renewed price pressure in 2025.

Healthier diets save households money

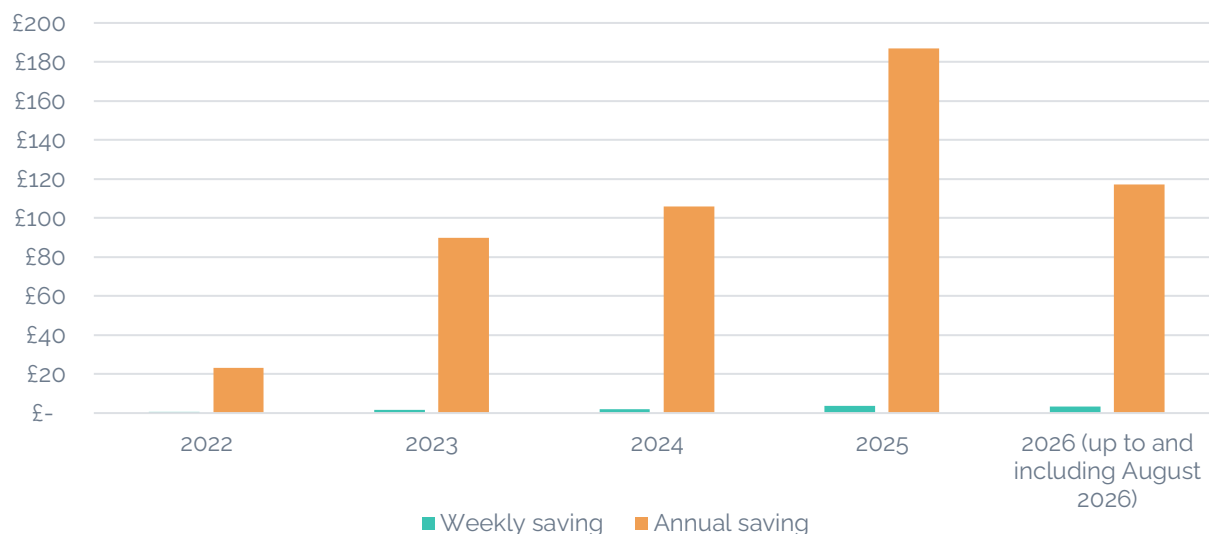
The lower inflation experienced by the Eatwell-aligned basket would have translated into meaningful savings for households.

For a household spending a typical amount on food in 2021 – around £70 per week⁴ – our modelling suggests that the lower inflation associated with an Eatwell-aligned diet would have reduced cumulative food expenditure by approximately £520 by the end of August 2026. In 2025 alone, the saving would have amounted to around £190.

These figures isolate the effect of different rates of food-price inflation. They do not include any additional savings or costs that might result from changing the quantities of food purchased or switching between cheaper and more expensive products. Instead, they illustrate how the composition of a healthier diet could itself provide some protection from rising food prices.

⁴ In line with the [Family Spending Survey](#) FYE 2021 (ONS)

Figure 7: Annual and weekly household savings from healthier diets, for households maintain consumption at 2021 quantities



Source: ECIU analysis

Indeed, recent analysis by the Food Foundation found that healthier foods are nearly [twice as expensive per calorie](#) as less healthy alternatives (Food Foundation, 2026). While our analysis suggests that an Eatwell-aligned diet would have been less exposed to recent food inflation, including price pressures associated with climate-related shocks affecting commodities such as cocoa and livestock products, this should not be interpreted as meaning that healthier diets are necessarily more affordable in absolute terms.

It is also important to note that this analysis is based on the Government's Eatwell Guide, which makes recommendations about the balance of food groups rather than the degree of food processing. As the Eatwell Guide does not make specific recommendations on ultra-processed foods (UPFs), our model cannot assess whether more or less processed diets have experienced different rates of inflation. Such an assessment would require a separate methodology and classification of foods.

Appendix

Methodology

The analysis constructs two food price indices from the same set of ONS component price series. The first uses the published ONS expenditure weights. The second adjusts those weights using dietary factors designed to move the composition of the basket towards an Eatwell-compatible diet. Because the price series are identical in the two indices, differences between them arise from the different expenditure weights assigned to food categories.

For each mapped food category, a dietary adjustment factor is calculated from the modelled Eatwell-compatible quantity relative to current consumption. A factor above one increases that category's unnormalised expenditure weight; a factor below one reduces it. The selected dietary factors are held fixed through time, while the underlying ONS weights continue to vary by weights year.

After applying the dietary factors, adjusted weights are renormalised within each weights year so that the total modelled food-basket weight is preserved. This isolates the effect of changing the composition of the basket rather than changing the overall importance of food in the index.

The counterfactual should be read as: what inflation would a basket with Eatwell-aligned expenditure shares have experienced, given the component price changes that actually occurred? It is not a behavioural or general-equilibrium model. It does not estimate how food prices, production, retailer behaviour or household demand would change if the population actually shifted diets.

Inflation rates are presented using two measures. Annual average inflation rates are calculated as the mean of the monthly year-on-year inflation rates within each calendar year. Where inflation is reported across multiple years, the compound annual growth rate (CAGR) is calculated from the change in the price index between the start and end of the period. CAGR captures the annualised rate of price increases over that period, accounting for compounding, and therefore may differ from the average of the annual inflation rates.

The component-driver analysis is an approximate diagnostic based on component year-on-year inflation multiplied by the difference between Eatwell and current basket shares. It is useful for identifying which categories explain the gap, but it is not an exact additive decomposition of the chain-linked headline index.

The household saving estimates translate the modelled difference in price levels into an expenditure-equivalent amount using a common starting level of food expenditure. They are intended to make the scale of the modelled price-level difference easier to interpret. They should not be described as cash savings that an individual household would

necessarily realise as actual spending depends on household size, purchasing patterns, substitution, quantities purchased and other behavioural responses.

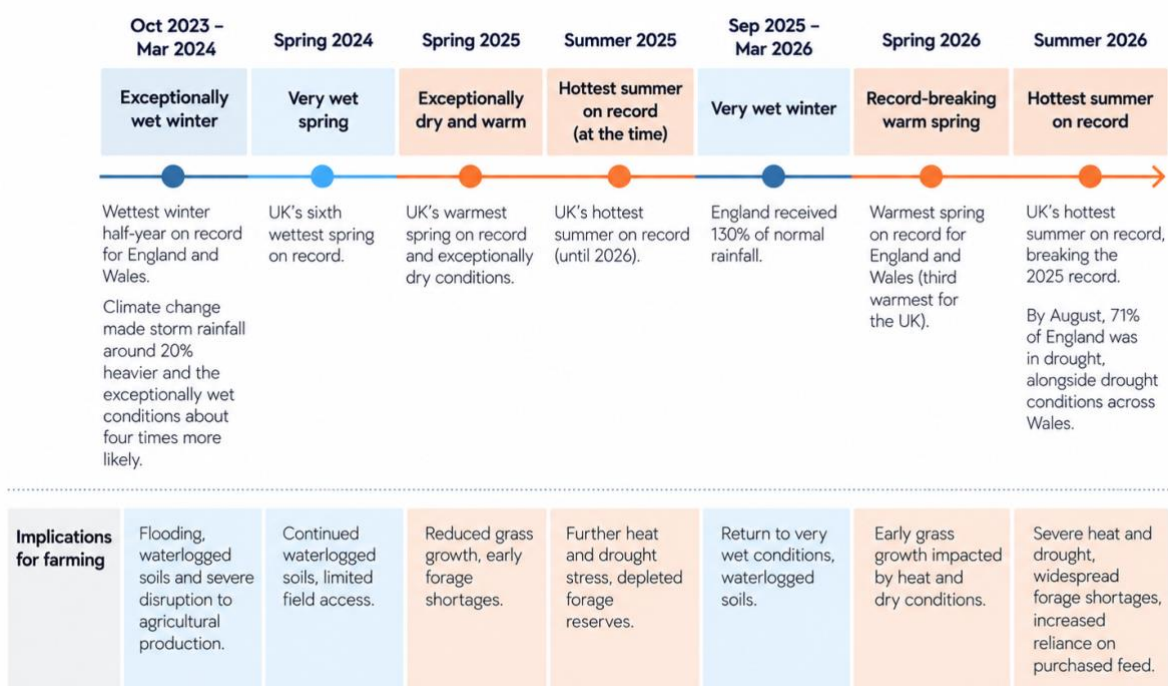
The impact of climate extremes on food production and prices

Mid-2024 to mid-2026 – climate change pushes up food prices

UK farming has faced a succession of extreme and rapidly changing weather conditions. The 2023–24 El Niño coincided with the wettest winter half-year on record for England and Wales, from October 2023 to March 2024. While El Niño likely contributed to the exceptionally wet conditions, climate change intensified their severity, with human-caused warming making storm rainfall around 20% heavier and the exceptionally wet conditions about four times more likely (WWA, 2024). The result was widespread flooding, waterlogged soils and severe disruption to agricultural production across much of the UK.

2025 then saw an exceptionally dry spring and the hottest spring and summer on record (Met Office, 2026). Wet weather subsequently returned with England receiving 130% of normal rainfall from September 2025 to March 2026 (Environment Agency & DEFRA, 2026). This was followed by another record-breaking spring and summer, with summer 2026 breaking the 2025 record (Met Office, 2026) and culminating in 71% of England and all of Wales in drought by August (Environment Agency, 2026).

Drought and deluge have plagued UK livestock farming in recent years



These repeated swings between excessive rainfall, drought and heat create particular problems for livestock production. Wet conditions can waterlog soils and restrict grazing, while drought and heat reduce grass growth and deplete forage and silage reserves. Farmers can compensate by buying additional feed or drawing down winter stores, but at additional cost.

For **beef and lamb**, the consequences can persist long after the weather itself has changed. Farmers facing poor pasture, depleted feed stocks or high costs may reduce herd and flock sizes but rebuilding them is inherently slow. The UK female sheep breeding flock fell by around one million animals between 2022 and 2025, from 15.8 million to 14.8 million, while the UK suckler herd - cows whose primary purpose is producing calves for beef - fell by a further 4% in the year to June 2025 (DEFRA, 2026).

Once breeding animals are lost, rebuilding takes time, meaning decisions to reduce herd numbers today can affect meat supplies several years into the future. Cattle have a gestation period of around nine months and can then take roughly another two years to reach slaughter weight (AHDB). Expanding the breeding herd takes longer still, as female calves retained as replacements must mature and produce calves of their own. This slow biological production cycle means that decisions taken in response to a drought or deluge can constrain meat production for years. Successive climate shocks can therefore compound one another, prolonging their effects on supply and prices.

Sheep have a shorter production cycle, with a gestation period of around five months, but production is highly seasonal. Most ewes lamb only once a year, so disruption of the breeding and lambing period can have a long-lived effect.

The effects of this have been particularly biting for consumers. Beef prices have risen by about a fifth since January 2025 and 27% since January 2024. For context, over the same period, food prices as a whole rose 6% and 9% respectively (ONS, 2026). Meanwhile, detailed impact modelling indicates that lamb prices rose around 7% higher as a result of the 2022 drought, 15% higher following the wet winter of 2023–24, and 21% higher following the 2025 drought (Zero Carbon Analytics & ECIU, 2026).

Dairy markets can adjust more quickly, with farmers able to increase productivity by buying in more feed if prices support it. Climate shocks can nevertheless raise dairy production costs and constrain output in the short term. Extreme heat can directly reduce milk yields as cows experience heat stress, while drought also reduces grass growth and increases reliance on more expensive purchased feed. ECIU analysis found a clear impact during the record heat of 2026. Across May to August, dairy farmers produced around 240 million litres less milk than would have been expected from normal seasonal patterns, worth more than £80 million at prevailing farmgate prices (ECIU, 2026). By late summer 2026, the UK cattle herd had a grass deficit equivalent to around two months of feed per animal, following an already poor forage year in 2025 (ECIU, 2026). Butter is particularly exposed to these pressures because its production requires large quantities of milk.

Dairy herds have also been increasingly impacted by outbreaks of bluetongue - a virus spread by midges – whose [transmission season](#) and range is likely being extended by climate change (Nature, 2019).

Chocolate has been particularly exposed to extreme weather in West Africa, where Côte d'Ivoire and Ghana produce around 60% of the world's cocoa. Heavy rainfall and crop disease were followed by drought and extreme heat, contributing to a sharp rise in cocoa prices. Climate attribution research found that climate change made an extreme February 2024 West African heatwave [around 4°C hotter](#) and ten times more likely (WWA, 2024). UK chocolate prices subsequently rose around 27% over two years and 45% over three years.

The concentrated nature of much of the recent food inflation means that two households facing the same supermarket prices can experience different effective rates of food inflation if their diets place different weights on the products experiencing the largest price shocks.