

Article

# International comparisons of consumer prices: August 2021

International comparison of recent trends in consumer price inflation, focusing on the UK, the United States and the euro area.

Contact:  
Kathryn Keane  
economic.advice@ons.gov.uk  
+44 1633 455714

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# 1 . Main points

- Consumer price inflation (as measured by the Harmonised Index of Consumer Prices) has increased sharply over recent months in the UK, [euro area](#) and the United States.
- The United States inflation rate reached 6.4% in June 2021, compared with 2.4% in the UK and 1.9% in the euro area, UK inflation has since fallen back to 2.0%.
- Transport has been the biggest driver of United States inflation, and of the difference between the United States, UK and euro area, primarily driven by fuels and lubricants and used vehicles.
- Food price growth during the coronavirus (COVID-19) pandemic has been relatively low in the UK compared with the United States and euro area.
- The factors underlying inflation in each country and area are complex and include the effects of different government policies including lockdown measures, fiscal and monetary interventions, and interest rate movements.

## 2 . Overview

Consumer price inflation has risen sharply across the UK, United States and euro area in recent months, reversing the trend seen at the beginning of the coronavirus (COVID-19) pandemic. While this is true across a variety of common measures of consumer price inflation, the Harmonised Index of Consumer Prices (HICP) is the most suitable measure for international comparisons and is equivalent to Consumer Price Index (CPI) in the UK, this is explained in more detail in [Section 7](#). This article uses the latest data available at the time of writing.

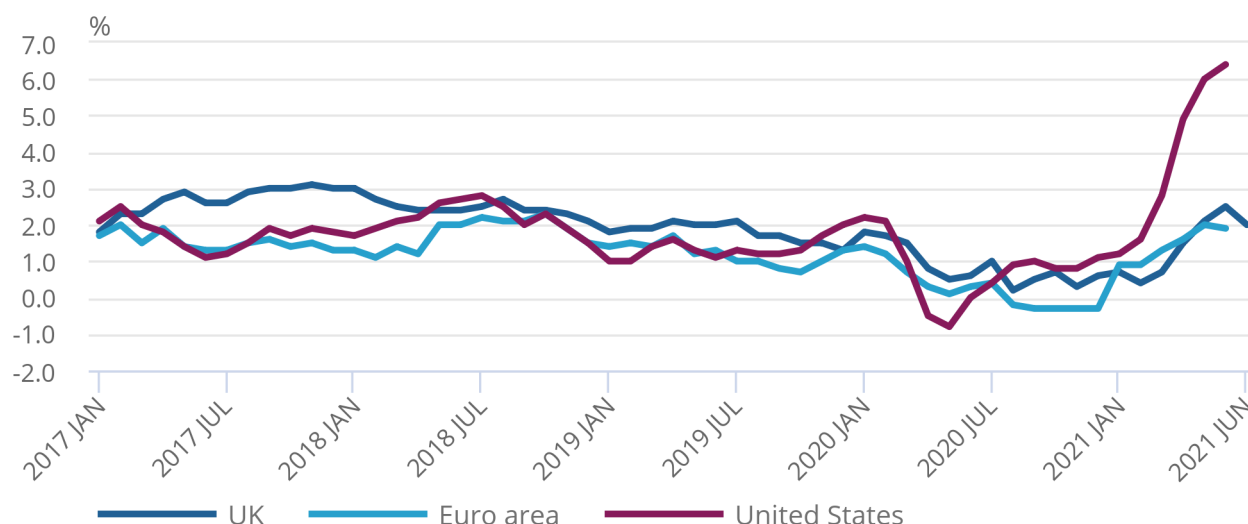
Figure 1 shows that the UK and euro area have seen similar movements in the 12-month growth of the HICP since the start of the pandemic. The UK rate declined from 1.8% in January 2020 to 0.2% in August 2020, while the euro area rate declined from 1.4% to negative 0.2% over the same period. This then increased to 2.4% in June 2021 in the UK and 1.9% in the euro area (the UK rate has since fallen back to 2.0% in July 2021). The same trends have been more pronounced in the United States, with an initial decline from 2.2% to negative 0.8% in just three months in early 2020, with a subsequent increase to 6.4% in June 2021. This analysis will explore the drivers of these trends, drawing out features that are common or specific to certain countries.

**Figure 1: Consumer price inflation has risen sharply over recent months**

HICP 12-month growth rate, UK, United States and euro area from January 2017 to July 2021

## Figure 1: Consumer price inflation has risen sharply over recent months

HICP 12-month growth rate, UK, United States and euro area from January 2017 to July 2021



Source: Office for National statistics – Consumer Prices Index, Eurostat – Harmonised Index of Consumer Prices

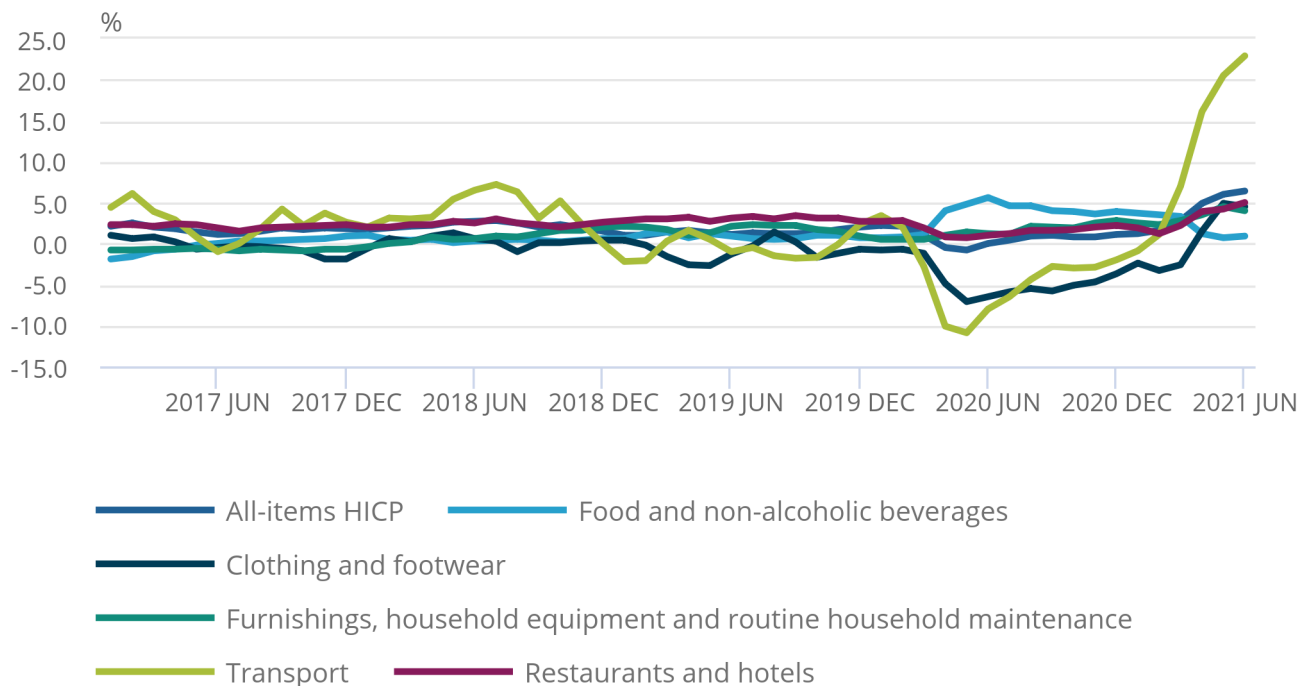
Figure 2 shows the 12-month growth rate of selected divisions within the United States HICP since January 2017, with transport clearly standing out as having a strong upward pull on the All-items rate in 2021. Transport also had a particularly pronounced fall in prices at the beginning of the pandemic, so [base effects](#) will have amplified 12-month growth rates in recent months. Other divisions have also seen upticks over recent months, including furniture and furnishings, and clothing and footwear, whereas food and non-alcoholic beverages have seen the opposite, with price growth rising at the beginning of the pandemic and gradually falling in recent months.

## Figure 2: Transport has seen the sharpest increase in price growth in the United States over recent months

12-month growth rate for selected HICP divisions, United States, January 2017 to June 2021

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12-month growth rate for selected HICP divisions, United States, January 2017 to June 2021



Source: Eurostat – Harmonised Index of Consumer Prices

Clothing and footwear price growth followed a similar trend to transport at the beginning of the pandemic, with prices falling sharply. This has since risen, contributing to the uptick in the headline inflation rate. However, price growth has remained negative through much of the period since 2019 and the recent increase is likely to reflect base effects. Clothing and footwear price growth has followed different trends in the UK and euro area with disruption to seasonal trends causing unusual price growth patterns.

Furniture and household goods have also seen an increase in price growth in recent months, which may reflect [increased demand](#) as people have been spending more time at home during the pandemic, and have [generally also accumulated savings](#) to spend on [home improvements \(PDF, 8.47MB\)](#), as well as increased house purchases. It may also be driven in part by supply chain bottle necks as certain materials, such as [lumber](#), have seen sharp price increase in the United States and some household goods may also be affected by the supply chain issues for computer chips.

The following sections look in more detail at transport and food and non-alcoholic beverages as they have seen some of the biggest differences in price trends between the United States and the UK and euro area.

## 3 . Transport

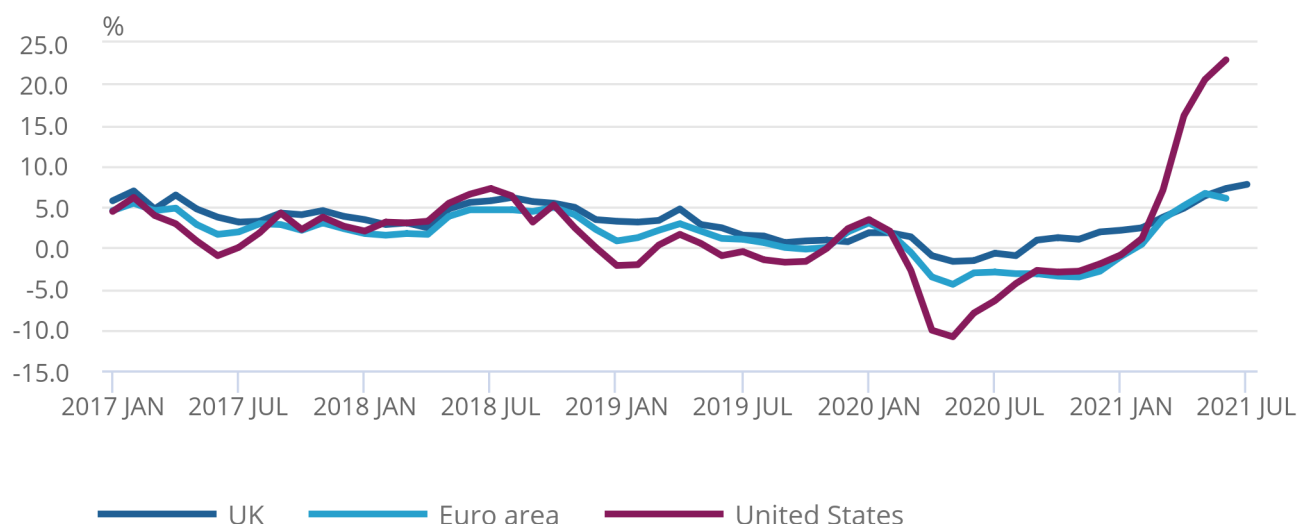
Transport has been an important factor in the difference in the rates of consumer price inflation between the UK, euro area and United States during the coronavirus (COVID-19) pandemic.

### Figure 3: Transport has recently been a key driver in inflation

Transport 12-month price growth rate, UK, US and euro area, January 2017 to July 2021

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Transport 12-month price growth rate, UK, US and euro area, January 2017 to July 2021



Source: Office for National Statistics – Consumer Prices Index, Eurostat – Harmonised Index of Consumer Prices

The 12-month growth rates for transport fell sharply in the UK, United States and euro area at the beginning of the pandemic and have more recently seen higher than usual growth as economies have reopened. Both of these movements were particularly pronounced in the United States, with recent increases largely driving the sharp increase in the All-items United States Harmonised Index of Consumer Prices (HICP) rate.

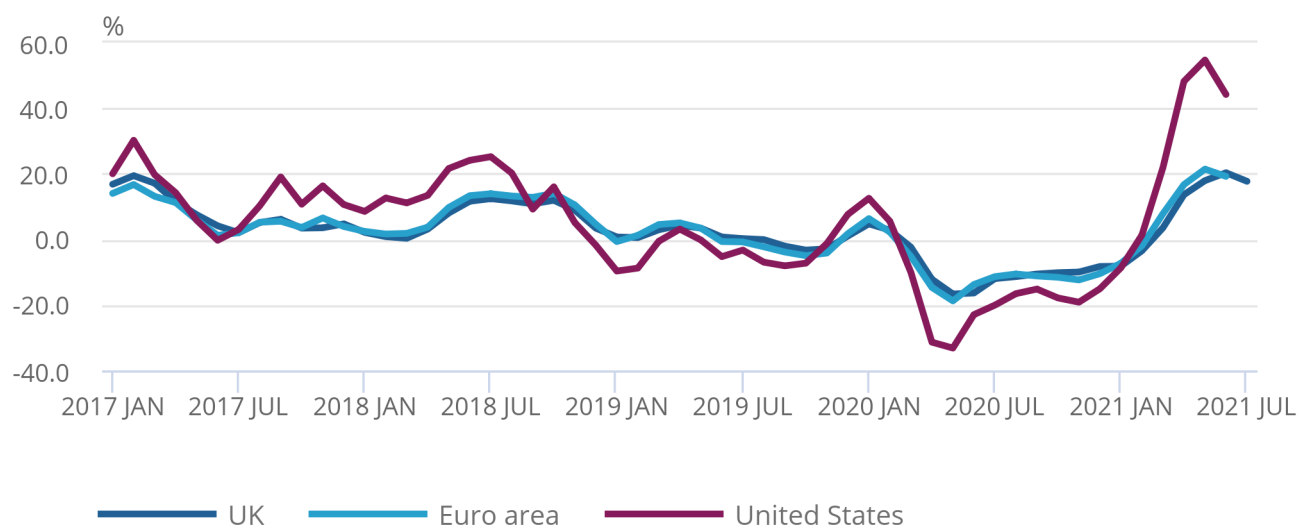
In the UK, transport price growth declined to negative 1.7% in May 2020, whereas growth in the euro area fell to negative 4.5%. This difference was in large part because of the UK experiencing relatively higher growth in passenger transport by road and by railway prices. At the same time, the United States experienced a much sharper fall, to negative 10.9%, but has since seen the growth rate increase quickly, reaching 22.9% in June 2021. The UK and euro area saw a more modest increase in growth rate to 7.2% and 6.0% in June 2021, with the UK rising to 7.7% in July 2021. These far more extreme movements in the United States, and the trend in general, are driven in large part by fuels and lubricants and, more recently, also by used cars.

**Figure 4: Fuels and lubricants have been a key driver of inflation during the pandemic**

Fuels and lubricants 12-month growth rate, UK, United States and euro area, January 2017 to July 2021

## Figure 4: Fuels and lubricants have been a key driver of inflation during the pandemic

Fuels and lubricants 12-month growth rate, UK, United States and euro area, January 2017 to July 2021



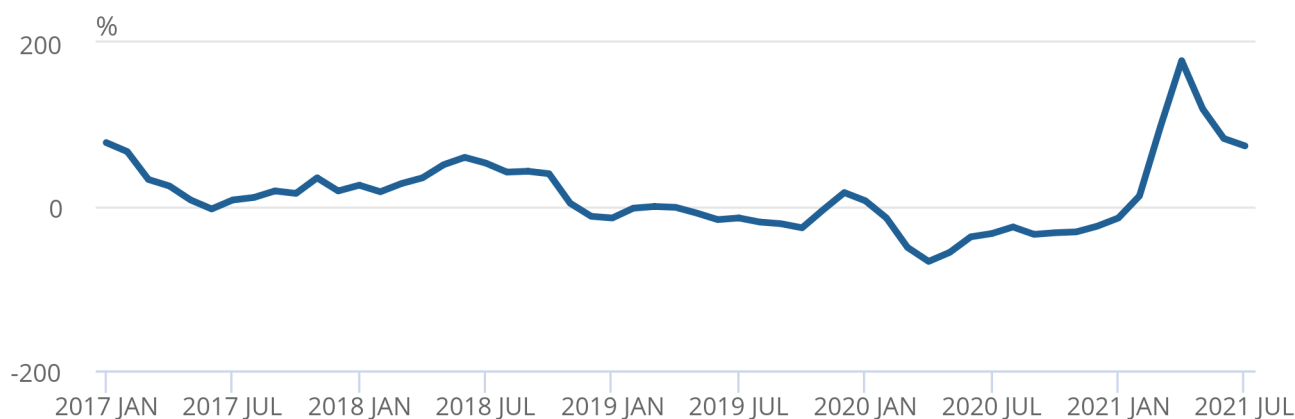
Source: Office for National statistics – Consumer Prices Index, Eurostat – Harmonised Index of Consumer Prices, Organisation for Economic Co-operation and Development

**Figure 5: Brent crude oil price growth spiked at 178% in April 2021**

Crude oil 12-month price growth rates, January 2017 to July 2021

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Crude oil 12-month price growth rates, January 2017 to July 2021



Source: World Bank – Commodity Price Data

Petrol and diesel, which make up almost all of fuels and lubricants, are both refined from crude oil and so their prices closely follow that of [crude oil](#), as can be seen by comparing Figures 4 and 5. In Figure 4 it is also clear that, in general, the United States experiences much more volatility in the 12-month growth rate of fuels and lubricants, with higher peaks and lower troughs, than the UK and euro area.

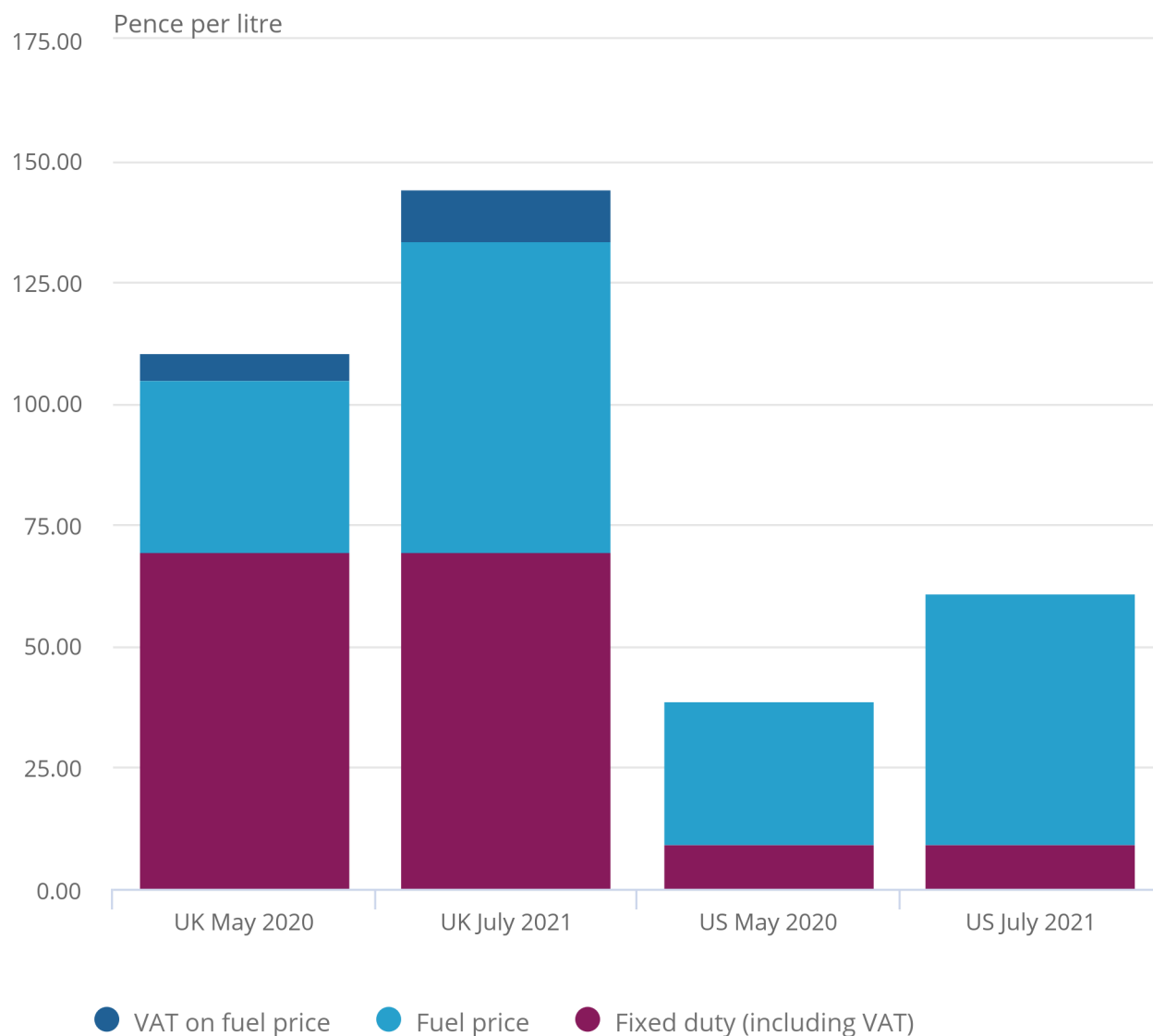
One of the reasons for this is the difference in how petrol and diesel are taxed, with far higher fixed duty in the UK and euro area compared with the United States. The effective fixed duty on petrol in the UK is 69.54 pence per litre (ppl), 67.26ppl in the euro area and 9.20ppl in the United States (see [Section 7](#) for more information). Figure 6 breaks down the pump price of petrol in the UK and United States into fixed duty (including VAT), the fuel price, and the VAT on the fuel price, on both 25 May 2020 (the date of the lowest petrol price in the UK in 2020), and 26 July 2021 (the final date in July 2021 for which the Department for Business, Energy and Industrial Strategy (BEIS) collects prices). Between these dates, the fuel price component grew by 81.0% in the UK and 75.7% in the United States, whereas the pump price, used in consumer price indices, grew by 27.3% and 57.7% respectively.

## Figure 6: Duty makes up a considerably higher proportion of motor fuel prices in the UK than the United States

Breakdowns of petrol pump price, UK and United States, 25 May 2020 and 26 July 2021

### Figure 6: Duty makes up a considerably higher proportion of motor fuel prices in the UK than the United States

Breakdowns of petrol pump price, UK and United States, 25 May 2020 and 26 July 2021



Source: Department for Business, Energy and Industrial Strategy – Weekly road fuel prices, Energy Information Administration – Weekly Retail Gasoline and Diesel Prices

#### Notes:

1. The euro area has been excluded as differing VAT rates and tax treatments across countries make comparison with the UK and the United States unsuitable. While different U.S. states tax fuels at different rates, the calculation of the average state level tax by the U.S. Energy Information Administration allows for this to be accounted for, whereas this is not available for the euro area.



This lower price growth in the UK is because of the substantial difference in fixed duty which has the effect of smoothing the impact of changes in the price of crude oil, resulting in a lower percentage change in the UK, and euro area, relative to the United States. This can be seen clearly through the 12-month growth rate of fuels and lubricants which was negative 18.3% in May 2020 and 68.0% in May 2021 in the United States, while the equivalent figures for the UK were negative 11.6% and 9.4% respectively. This growth rate feeds through into the headline rate of inflation, with these more extreme swings in the United States having a larger impact. A further consequence of this is a large base effect; for example, in June 2021 12-month fuels and lubricants price growth was 83% in the United States, whereas non-seasonally adjusted month-on-month growth was 2.2%.

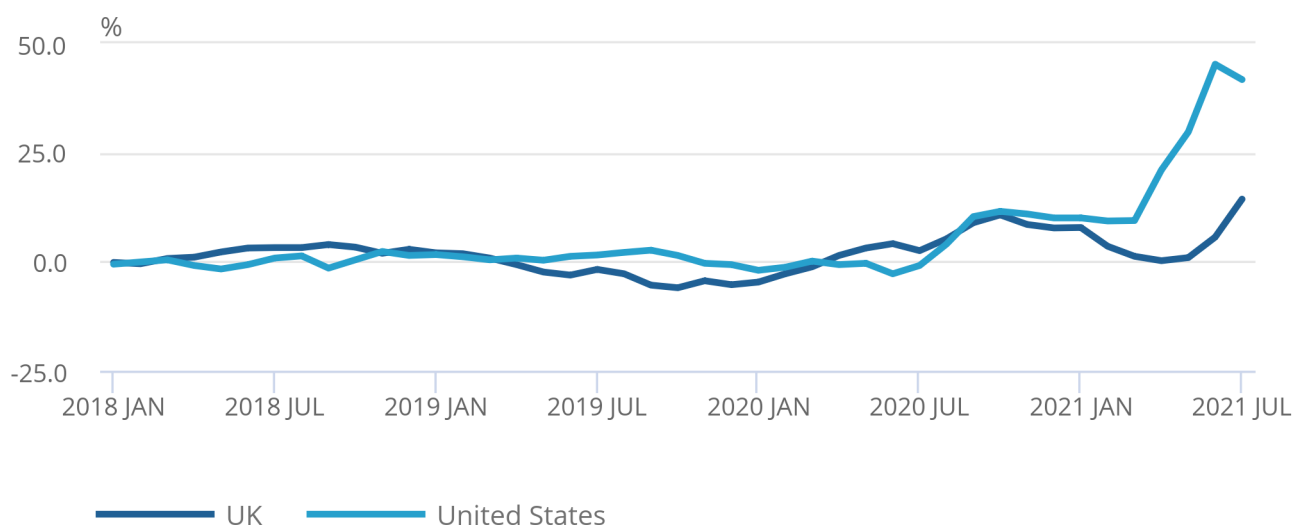
Another component which has contributed to the overall trend in transport is used cars. Figure 7 shows the 12-month growth rate for prices of second-hand vehicles in the UK and United States, where price growth increased through 2020 to reach 10.7% and 11.5%, respectively, before plateauing in the United States and declining in the UK. In 2021, used car price growth began to rise rapidly in the United States, from 9.4% in March to 45.2% in June, before falling slightly to 41.7% in July. The UK has experienced a smaller increase from negative 0.1% in April 2021 to 14.3% in July 2021.

**Figure 7: Second-hand vehicles have seen exceptional price growth in the United States in recent months**

Second-hand motor cars 12-month price growth, UK, United States and euro area, January 2018 to July 2021

### Figure 7: Second-hand vehicles have seen exceptional price growth in the United States in recent months

Second-hand motor cars 12-month price growth, UK, United States and euro area, January 2018 to July 2021



Source: Office for National Statistics – Consumer Price Inflation, U.S. Bureau of Labor Statistics – Consumer Price Index for All Urban Consumers

The periods of unusually high price growth in both countries likely reflect common factors caused by the pandemic such as pent-up demand, as dealerships were forced to close for long periods. Higher savings rates by consumers may have also boosted demand, while consumer preferences may have shifted as social distancing challenges made public transport less attractive. The rise in [online platforms](#) to buy and sell second-hand cars during the pandemic has also made the market more accessible and likely aided demand.

Supply issues with new cars because of coronavirus induced manufacturing and supply chain [disruption](#) have reduced the stock of new cars available for sale and increased wait times, which may have prompted consumers to turn to the used car market.

A particular issue for car manufacturers has been a shortage of semiconductors, a vital component in cars and electronic goods. As the pandemic hit and lockdowns were enacted around the world, car manufacturers cut back on orders of semiconductors in anticipation of lower demand, but the quicker than expected global recovery and surge in demand for consumer electronics has created a global shortage which is holding up car production, [leaving factories idle](#).

The difference between the UK and United States price trends may in part reflect historical methodological differences, with the UK collecting prices for cars between [2 and 3 years old](#) while the United States collects prices of cars and trucks between [2 to 7 years old](#). However, recent record growth in the United States is likely driven by country-specific factors, such as three rounds of federal [stimulus cheques](#) and further federal and state government support that has likely boosted demand.

A further factor specific to the United States is the substantial impact of the rental car market. As the pandemic took hold and travel heavily reduced, rental car companies in the United States began [selling off their fleets](#), both because of lower expected demand and in an [attempt to meet financial obligations](#). This likely contributed to the fall in used car price growth at negative 2.7% in June 2020, which reversed as the economy reopened in early 2021. Rental car companies have been [regrowing their fleets](#) amid unprecedented demand which has pushed up prices for car and truck rental by [87.7% compared with a year ago](#). This sale and repurchase by hire car companies has added to the base effect, by further pushing down prices when they were low and then, a year later, pushing them up when elevated.

## 4 . Food

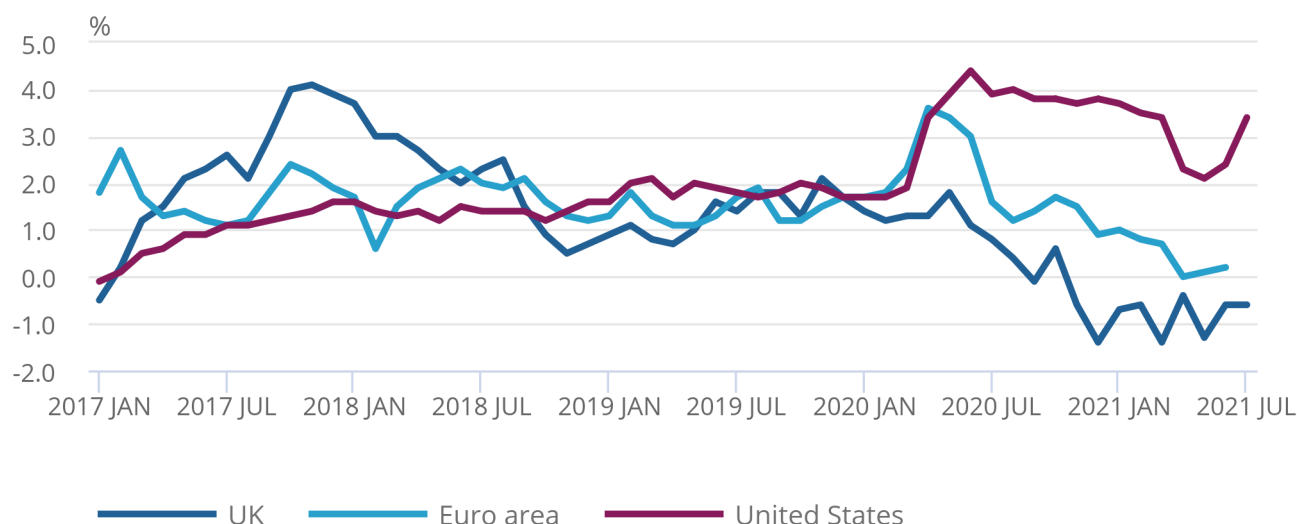
Food and non-alcoholic beverages have seen considerable price growth variation between countries over the course of the coronavirus (COVID-19) pandemic. In April 2020, supply chain disruption following lockdowns and other public health measures caused a spike in food price growth. Figure 8 shows that the United States and euro area both saw sharp increases in the rate of price growth between March and April 2020; from 1.1% to 4.0% in the United States and from 2.3% to 3.6% in the euro area. Price growth in the UK remained flat before increasing from 1.3% to 1.8% in May 2020. In the United States the increase continued and peaked in June 2020 at 5.6%.

## Figure 8: Pandemic-related supply chain disruption caused a spike in food inflation

12-month food and non-alcoholic beverages growth rate, UK, United States and euro area, January 2015 to July 2021

### Figure 8: Pandemic-related supply chain disruption caused a spike in food inflation

12-month food and non-alcoholic beverages growth rate, UK, United States and euro area, January 2015 to July 2021



Source: Office for National Statistics – Consumer Price Inflation, Eurostat – Harmonised Index of Consumer Prices, U.S. Bureau of Labor Statistics – Consumer Price Index for All Urban Consumers

Since this spike, the growth rate in the United States, UK and euro area has declined substantially, although since May 2021 this has increased again, particularly in the United States. Food and non-alcoholic beverages have followed the opposite pattern to most other divisions in the basket, with prices rising at the beginning of the pandemic, before falling as economies reopened. This may reflect the grocery stockpiling experienced in the early stages of the pandemic and how consumers substituted unavailable restaurant and takeaway services (components included in Hotels and Restaurants) for home-cooked food. As economies have reopened, this substitution pattern has reversed with lower food price growth in the periods of summer 2020 and spring 2021.

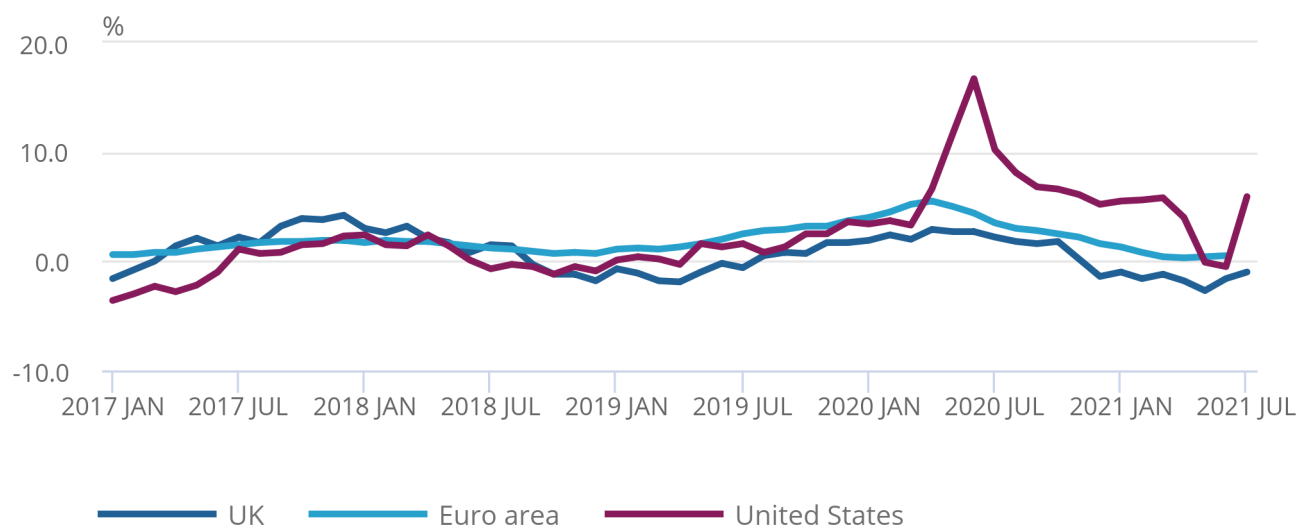
Price growth was higher in the United States than the UK and euro area across many food items, most notably meat. Figure 9 shows that the 12-month price growth of meat was steadily increasing in all three areas from early 2019 to March 2020, when the rate then increased in the United States from 3.3% to 16.7% by June 2020. The United States 12-month growth rate then fell sharply to 5.2% in December 2020, before falling sharply again in spring 2021 to reach negative 0.5% in June. In contrast, UK and euro area price growth reached recent peaks of 2.9% and 5.5% respectively in April 2020, before both declining steadily to negative 2.7% and 0.4% in May 2021, from which both have since seen increases. United States price growth for meat has risen sharply again in July 2021, to 5.9%.

**Figure 9: Meat saw much higher price growth in the United States than the UK and euro area at the beginning of the pandemic**

12-month growth rate for meat, UK, United States and euro area, January 2017 to July 2021

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12-month growth rate for meat, UK, United States and euro area, January 2017 to July 2021



Source: Office for National Statistics – Consumer Price Inflation, Eurostat – Harmonised Index of Consumer Prices, U.S. Bureau of Labor Statistics – Consumer Price Index for All Urban Consumers

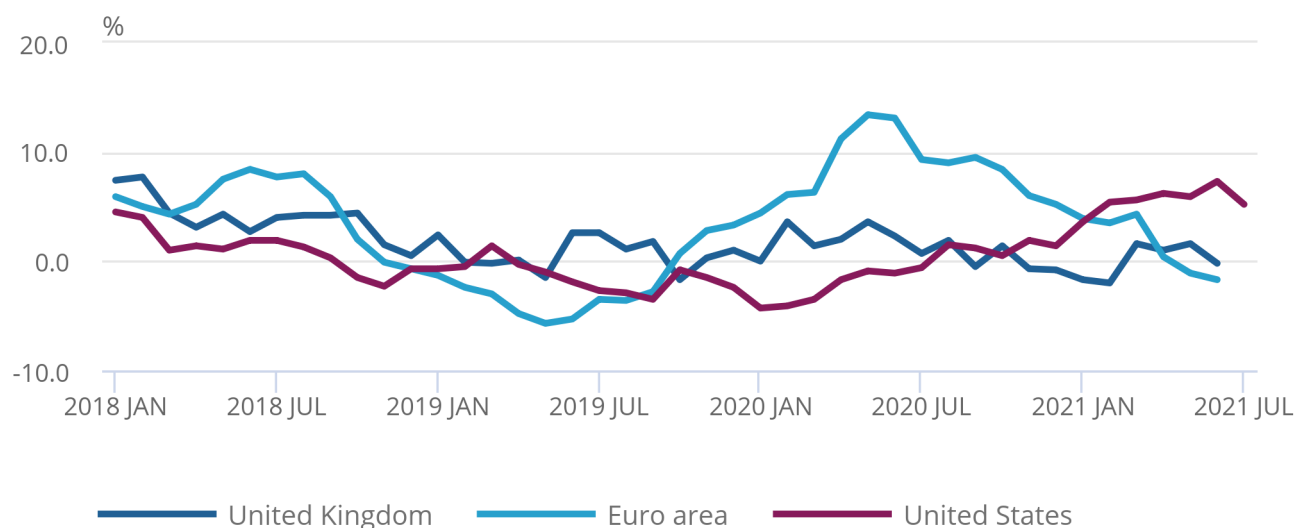
While Figure 9 shows that meat partly accounted for the difference between the euro area and UK, it was fresh fruit and vegetables that were primarily responsible for the euro area rate rising substantially quicker than the UK rate in April 2020. Figure 10 shows that the annual rate of price growth for fresh and chilled fruits in the euro area increased from a low of negative 5.7% in May 2019 to reach 6.3% in March 2020, before a spike to 13.4% in May 2020 and subsequent steady decline to negative 1.7% in June 2021. Over the same period the UK growth rate has been more stable, remaining between negative 2.0% and 3.6%.

**Figure 10: Fresh and chilled fruits saw much higher price growth in the euro area than the UK at the beginning of the pandemic**

12-month growth rate for fresh and chilled fruits, UK, United States and euro area, January 2018 to July 2021

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12-month growth rate for fresh and chilled fruits, UK, United States and euro area, January 2018 to July 2021



Source: Office for National Statistics – Consumer Price Inflation, Eurostat – Harmonised Index of Consumer Prices, U.S. Bureau of Labor Statistics – Consumer Price Index for All Urban Consumers

### Notes:

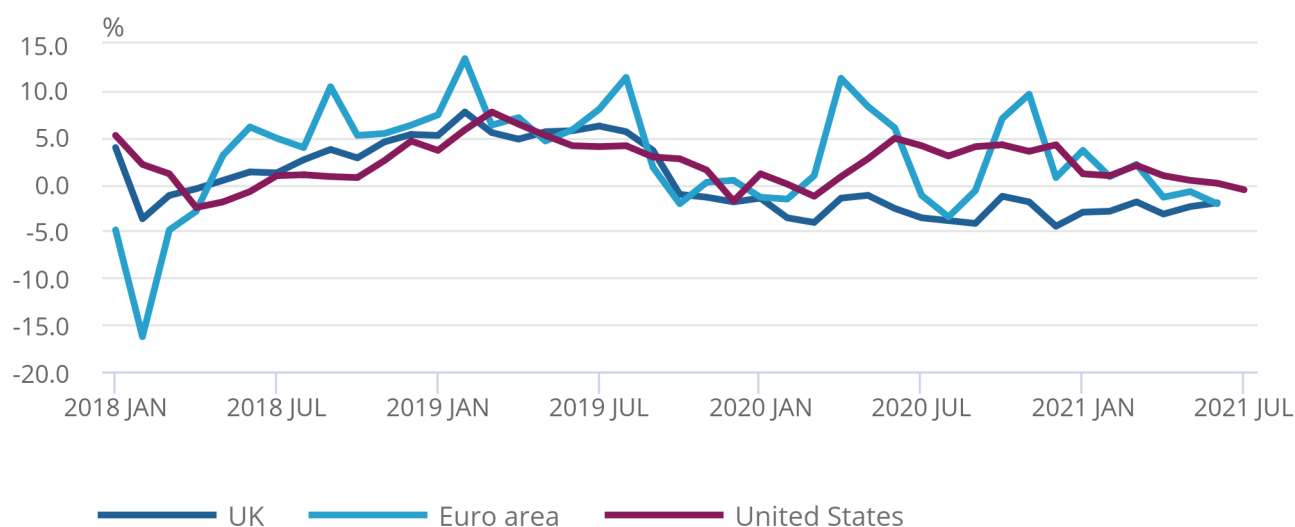
1. UK and euro area: fresh and chilled fruits, United States: fresh fruits.

## Figure 11: Vegetable price growth is much more volatile in the euro area than the UK and saw large spikes during the pandemic

12-month growth rate for fresh or chilled vegetables other than potatoes, UK, United States and euro area, April 2018 to July 2021

### Figure 11: Vegetable price growth is much more volatile in the euro area than the UK and saw large spikes during the pandemic

12-month growth rate for fresh or chilled vegetables other than potatoes, UK, United States and euro area, April 2018 to July 2021



Source: Office for National Statistics – Consumer Price Inflation, Eurostat – Harmonised Index of Consumer Prices, U.S. Bureau of Labor Statistics – Consumer Price Index for All Urban Consumers

#### Notes:

1. United States includes potatoes.

The euro area annual rate of price growth for fresh or chilled vegetables, seen in Figure 11, is a volatile time series characterised by large but brief spikes. Early 2020 saw a particularly large increase, jumping from negative 1.6% in February to 11.3% in April, before falling to negative 3.5% in August. Similar volatility can be seen in the autumn of 2020, but 2021 has seen relatively steady decline. In contrast, the rate in the UK has remained relatively stable around negative 2.5%.

This [increase in fresh fruit and vegetable prices in the euro area](#) is consistent with reports of very large price rises from April 2020. One factor blamed for this was the shortage of labour available to pick fruit and vegetables, although it is unclear why this would have affected the euro area more than the UK, which is similarly reliant on temporary immigration in domestic farming. In the euro area, the farmers who were able to harvest their produce were [unable to sell to consumers at local markets](#), which are common across much of rural Europe, because of public health restrictions and this may have also affected price collection.

## 5 . Summary of policy interventions

When comparing the rates of consumer price inflation across geopolitical entities it is important to consider the large variation in policy responses to the coronavirus (COVID-19) pandemic.

By the end of March 2020 the [Bank of England](#) and the [Federal Reserve](#) had both cut their relevant policy interest rates to record lows, of 0.1% and 0 to 0.25% respectively, while the European Central Bank (ECB) held its [three main interest rates](#) at record lows. The [Bank of England](#), [Federal Reserve](#) and [ECB](#) all also expanded their quantitative easing programmes over the course of the pandemic.

On the fiscal side, many developed economies have had policies designed to protect [labour market matches \(PDF, 423KB\)](#) and ensure continuity of income for workers. In the UK, this took the form of the Coronavirus Job Retention Scheme (CJRS) the program behind furlough, and the Self Employed Income Support Scheme (SEISS). The United States enacted the Paycheck Protection Program which provided low-interest, potentially forgivable loans to help businesses pay their workers. Many European countries such as France and Germany already had "short-time working schemes", which operate in a similar way to the CJRS and SEISS. Many countries also enacted welfare-based policies such as the UK's universal credit uplift and the United States' enhanced unemployment benefits. The United States took this a step further with three rounds of "[stimulus cheques](#)", intended explicitly to boost consumption as the economy reopened. Some [economists had suggested](#) that this policy could push inflation higher, although currently it is hard to disentangle any potential effects from the impact of the easing of public health restrictions and reopening of the economy.

Public health interventions have also had some direct influence on inflation, with the scale of that impact varying between the UK, United States and euro area. UK inflation has seen price growth movements corresponding to the introduction and lifting of various nationwide lockdown restrictions, whereas these restrictions have likely been more localised to specific states in the United States or countries in the euro area, flattening their effect on price movements.

## 6 . International comparisons of consumer prices data

### [Consumer price inflation tables](#)

Dataset | Released 18 August 2021

Latest consumer prices data for the UK including index values and growth rates for the Consumer Prices Index (CPI).

### [Eurostat Harmonised Index of Consumer Prices \(HICP\)](#)

Dataset | Released 30 July 2021

Latest consumer prices data for most European countries and the United States.

### [U.S. Bureau of Labour Statistics Consumer Price Index](#)

Dataset | Released 11 August 2021

Latest United States Consumer Prices Index (CPI) data.

### [Organisation for Economic Co-operation and Development Consumer prices indices \(CPI\)](#)

Dataset | Released July 2021

Latest consumer prices data, including detailed breakdown for the United States.

## 7 . Data sources and quality

## Comparability

As the most comprehensive measure of inflation, the Office for National Statistics' (ONS') lead inflation index is the Consumer Prices Index including owner occupiers' housing costs (CPIH) while the Consumer Prices Index (CPI), which excludes owner occupiers' housing costs, is used to set the inflation target for the Bank of England. Its "use case" is defined in the article, [Measuring changing prices and costs for consumers and households](#) as a measure that is internationally comparable and "[is produced to international standards in line with European regulations](#)". UK CPI is equivalent to the Harmonised Index of Consumer Prices (HICP), the only official index of consumer prices published for the euro area as a whole.

The United States' lead measure, the Consumer Price Index is comparable with UK CPIH as both include owner occupier housing costs. However, the United States' sample only includes urban consumers.

United States CPI also does not have a comparable euro area counterpart, but to facilitate international comparison, the U.S. Bureau of Labor Statistics (BLS) publishes an experimental measure of [United States HICP](#) through Eurostat. We use the HICP in this analysis as the only comparable measure of consumer price inflation across the UK, United States and euro area.

Due to the experimental nature of the United States HICP series, data are unavailable at lower levels of the basket. Therefore, we use the Organisation for Economic Co-operation and Development (OECD) estimates and growth rates from lower levels of United States CPI. Using growth rates at division level and below means that comparability is not compromised in terms of the basket composition, although the sample is urban only.

While HICP is the internationally comparable measure of consumer prices inflation, there are some methodological differences between countries and other economic differences, which can never be fully controlled for.

## Fuel duty

[UK fuel duty](#) is 57.95 pence per litre (ppl) plus 20% Value Added Tax (VAT), charged on both the duty and the price of the fuel, giving an effective fixed duty of 69.54ppl. To facilitate comparison, the following calculations use exchange rates taken at 3:15pm on 30 July 2021.

As EU member states, all euro area states are bound by the EU minimum excise duty of 35.9 euro cents per litre, but almost all charge a higher [excise duty \(PDF, 2.7MB\)](#) and the average fixed duty, weighted based on 2019 GDP, is 78.99 euro cents per litre or 67.26ppl, assuming all states charge VAT on duty.

[In the United States](#), fuel is taxed at both the federal level, with no VAT and slightly different rates for petrol and diesel, and the state level. The federal tax on petrol is 18.4 cents per gallon, while the average state tax calculated by the U.S. Energy Information Administration is 30.16 cents per gallon, for a total average tax of 48.56 cents per gallon, equivalent to 9.20ppl. Applying the same methodology to diesel gives a total average tax of 10.77ppl. These rates were last updated in 1993 and were not indexed to inflation.



## 8 . Related links

### [Consumer price inflation, UK](#)

Bulletin | Released 18 August 2021

Price indices, percentage changes and weights for the different measures of consumer price inflation.

### [United States Harmonised Index of Consumer Prices \(HICP\)](#)

Article | Released 17 July 2020

Summary of the United States approach to the Harmonised Index of Consumer Prices (HICP).

### [Measuring changing prices and costs for consumers and households, proposed updates](#)

Article | Released 18 March 2020

Proposed update to the description of the different measures and approaches to inflation in the UK:

Consumer Prices Index including owner occupiers Housing costs (CPIH), Household Costs Indices (HCIs) and the Retail Prices Index (RPI).