



Britain's Sticky Inflation

By John Greenwood

Introduction and Overview

- UK broad money growth has been on a downward trajectory since it peaked at 15% year-on-year in February 2021, just over two years ago.
- However, CPI inflation peaked at 11.0% in October 2022, and remains at 10.0% as of March 2023.
- Based solely on M4x growth, inflation should have fallen further and be on course for a year-on-year rate of about 5% by yearend.
- Despite a substantially lower broad money growth rate in the UK than in the United States in 2020-21, UK inflation peaked at a higher rate (11%) than US inflation (9.1%) and has remained higher than in the US or the euro-area.
- There appear to be two possible reasons for the UK's higher inflation.
- First, Britain's terms of trade (the ratio of export prices to import prices) have deteriorated during the past three years of the pandemic and recovery from it.
- Second, the government imposed an Energy Price Guarantee to protect consumer budgets from the very steep jump in energy prices after the Russian invasion of Ukraine in February 2022, but the effect of those price controls has been to prolong high prices for UK consumers.
- This effect can be seen by comparing wholesale prices for crude oil and natural gas with the prices faced by consumers for their retail equivalents, as recorded in the components of the CPI. Wholesale prices have already declined while the retail prices faced by consumers remain at elevated levels.
- Looking forward, the year-on-year inflation rate should drop significantly with the release of the April and October consumer price indices as these were the two months in 2022 when prices increased most steeply (+2.5% and +2.0% respectively).
- By yearend, even with the delayed response in Britain to wholesale market prices, inflation could fall to 5% year-on-year, and possibly as low as 3.2%.

International Monetary Monitor Ltd

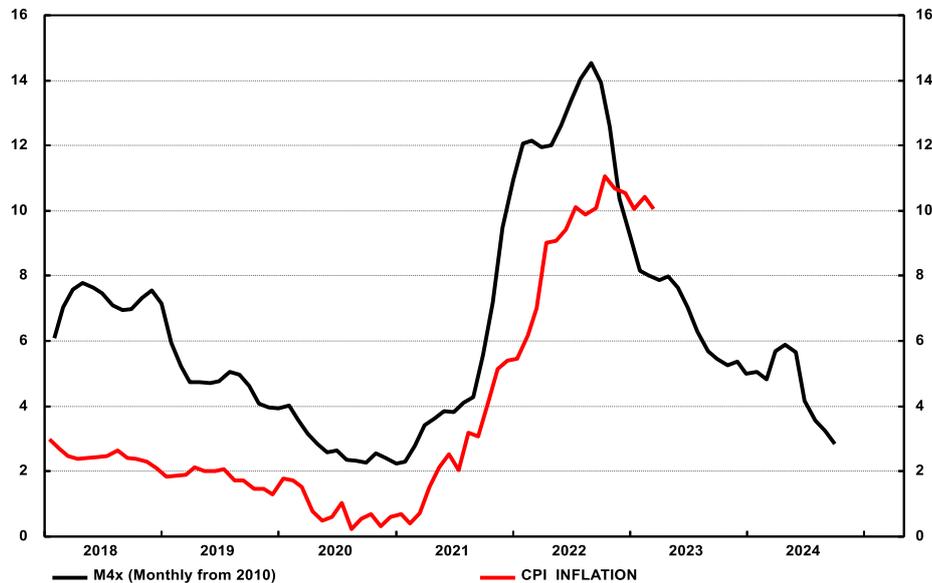
*The IMM Newsletter offers economic research written by John Greenwood, founder and Chief Economist of International Monetary Monitor Ltd. John was also the publisher, editor and lead author of **Asian Monetary Monitor**, a bi-monthly publication that he operated for 20 years from Hong Kong between 1977 and 1996. He was a pioneer of monetary research in Asia. From 1999 to 2021 he was Chief Economist at Invesco, based in London.*

To access my research please email your request to IMM@eri-c.com

1. The UK's high inflation rate

Figure 1. UK CPI inflation should already be on a downward track.

UK: M4x MONEY GROWTH & CPI INFLATION (%YOY)
(M4x GROWTH SHIFTED FORWARD 6 QUARTERS)



Source: Refinitiv Datastream

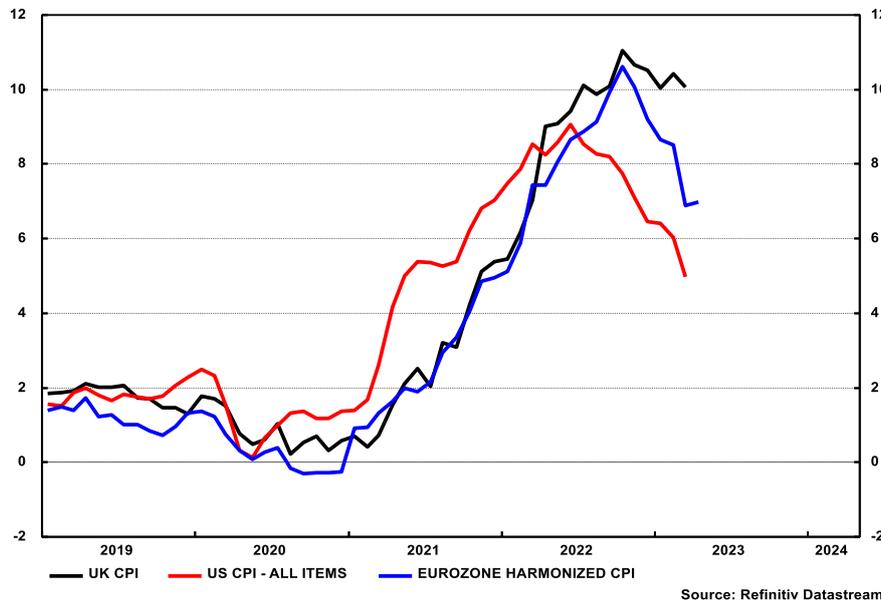
Based solely on M4x growth, as shown in Figure 1, UK CPI inflation should already be on a downward track. M4x growth peaked at 15.0% year-on-year in February 2021 (the data in the chart are smoothed over three months), almost exactly one year after the Bank of England embarked on QE purchases at the start of the Covid pandemic (and later a loan programme). Peak CPI inflation of 11.0% was recorded in October 2022, one and a half years after the beginning of the monetary expansion. This “lag in effect” of 18-24 months between the acceleration of money growth and the peak of inflation is typical in most cases for many developed economies.

Using the same lag in effect between monetary growth and inflation, a rough guide to the inflation rate in early 2023 should be given by the rate of monetary growth in the last half of 2021. By that time M4x growth had slowed to between 8% and 5%, suggesting the inflation rate should now be down to perhaps 4% or 5%. (The math is as follows: $m + v = p + y$, where these lower-case letters designate the rates of change of the variables in the quantity equation, $MV=PY$. For 15% M4x growth we would have roughly: $15-2=11+2$, with the 2% figures representing the assumed change in income velocity - or the inverse money balances per unit of nominal income - and the assumed real GDP growth rates respectively. Since the inflation rate follows about 18 months behind the money growth rate, given 8% M4x growth, as in late 2021, we get: $8-2=4+2$.)

Instead, as shown in Figure 2, UK inflation remains substantially more elevated than the inflation rates in either the US or the eurozone. In the US, headline CPI inflation peaked at 9.1% in June 2022, and has declined to 5.0% as of March

2023. Similarly, headline inflation in the eurozone peaked at 10.6% in October 2022 and had declined to 6.9% by March 2023. By contrast, the UK inflation rate

Figure 2. Inflation rates falling in US and eurozone, but not yet in UK.
COMPARISON OF CPI INFLATION IN US, UK & EUROZONE (%YOY)



remained at 10.0% in March 2023. In this Newsletter we will try to explain the factors behind the differential inflation rates, particularly the factors keeping UK inflation so high.

2. Explanatory Factors for UK's High Inflation

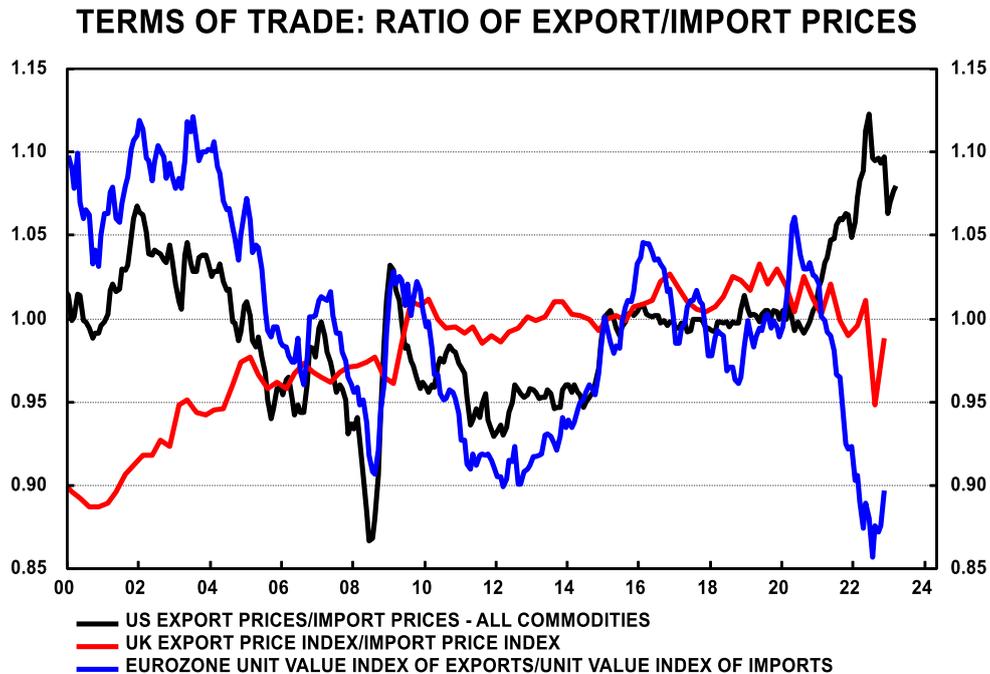
The first set of factors to consider as the source of the sustained high inflation rate in the UK is monetary growth. The cumulative broad money growth in each of the three areas since the start of Covid is set out in the table below.

	United States	United Kingdom	Euro-area
Broad money total	M2	M4x	M3
Cumulative money growth from Feb 2020 to Mar 2023	35.2%	24.7%	23.2%

Taken on their own, and assuming broadly similar real economic growth rates and broadly similar rates of accumulation of money balances (the inverse of the change in velocity), the table would suggest that the US should have experienced a significantly higher inflation rate than either the UK or the eurozone, but that is not the case. Even if the US enjoyed an underlying growth rate twice that of the UK or the eurozone (e.g., with US growth being 2% p.a. and UK and eurozone growth being only 1% p.a., amounting to a 3% cumulative difference over the period since February 2020), this would still not account for the inflation difference. Such a difference in economic growth would justify a cumulative money growth in the US of about 27-

28%, but not 35%. What explains the difference between the money growth rates and the inflation outcomes?

Figure 3. Adverse changes in the terms of trade have worsened inflation outcomes for the UK and the eurozone.

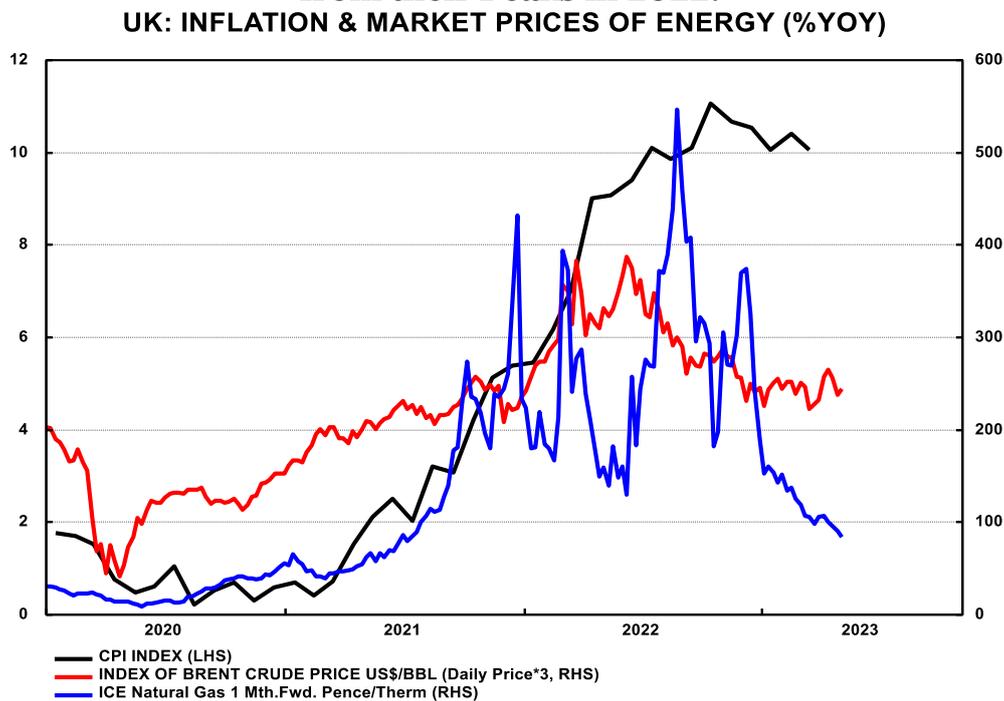


A second set of factors to consider in understanding relative inflation rates is the national terms of trade of each economy. Since early 2020 both the UK and the eurozone have seen a significant worsening in their terms of trade – i.e., the ratio of their export prices to the price of their imports, as shown in Figure 3. In the case of the UK, the terms of trade have fallen by 7%, while in the case of the eurozone the terms of trade have fallen by about 15%. Unfortunately, the price indices for these comparisons across the three economies are all constructed rather differently, making it difficult to be too precise. For example, the US indices measure only goods prices whereas the indices for the UK (which come from the deflators for trade in the GDP statistics) measure the prices of both goods and services. Nevertheless, it is clear that compared with the US - which has benefitted from a rise in the price of its exports (which include oil, petroleum products and agricultural products such as corn, grains and soybeans) - the UK and the eurozone have suffered from a rise in the price of their imports (which include oil, natural gas, and agricultural products) relative to the prices of the goods and services they export.

The pass-through from imported prices of energy products and food products to domestic inflation has been at the forefront of official analyses of the “sources” of inflation. While superficially correct in an accounting sense, the explanation that inflation in the UK (or the eurozone) is imported or due to “terms of trade shocks” overlooks the underlying drivers of inflation such as monetary growth. Without the excess monetary growth generated by the Bank of England’s QE and lending operations, Britain’s inflation performance would have been very different. Since

nominal incomes would not have risen as much as they did in 2021-22, the abrupt shift in relative prices would have imposed a greater change in the composition of spending, reducing the amount of spending on domestic goods and services while allowing spending on imported goods prices to rise modestly. As a result, the overall British inflation performance would have been something much closer to that of China (which did not accommodate Covid with faster money growth) or Japan (which accommodated Covid only with a modest acceleration of broad money growth).

Figure 4. Market Prices for Gas and Electricity have Fallen Back sharply from their Peaks in 2022.

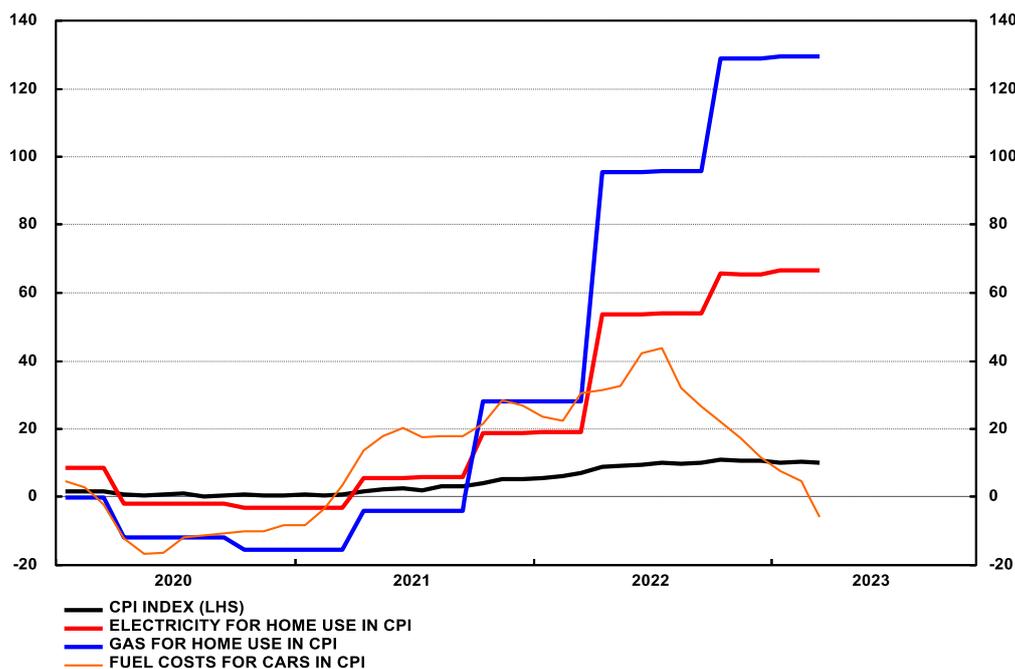


A third set of considerations for assessing the UK’s domestic inflation outcome is the pricing policies pursued in each of the three economies. In the US there was essentially no wide-ranging intervention in domestic pricing, while in the eurozone price fixing has been far less obtrusive than in the UK.

Figure 4 above shows the UK’s overall inflation rate (in black) along with an index of the wholesale market prices for Brent Crude (in red) and natural gas (in blue). In Britain the crude oil price is a key input for petrol, diesel, and the prices of other petroleum derivatives, while the natural gas price is crucial for both domestic heating (as 85% of customers rely on gas boilers to heat their homes) and electricity generation (as 40% of the national supply is generated by gas-fired stations). As the chart shows, both oil and natural gas prices have been very volatile over the past two years, and both have fallen substantially from their peaks in 2022. Oil prices have fallen by 40% from their peak in June 2022, but natural gas prices have fallen by 85% from their peak in August 2022.

Normally such abrupt and sizeable declines in wholesale prices would translate through to significant declines in retail prices, but this has been prevented by (1) the energy price cap introduced originally by Mrs May’s government in 2018 on standard variable tariffs for retail energy customers, and implemented by the regulator, Ofgem (Office of Gas and Electricity Markets), and (2) the government’s Energy Price Guarantee (EPG) plan, introduced in September 2022. Initially the EPG was scheduled to run from October 2022 to March 2023, with provision for further extensions. Prices were also capped for businesses, charities and the public sector for the six months from October, again with some provision for further extensions. To protect consumers from the fluctuations in wholesale prices, the government has frozen the unit costs of gas and electricity at £2,500 per year for an average use household paying by direct debit until the end of June 2023. The EPG is based on the regulator Ofgem’s energy price cap, which reflects the underlying costs of supplying energy and is reviewed every three to six months. Note that the EPG does not limit the total amount a household can be charged, which will depend on their usage.

Figure 5. Britain’s Energy Price Guarantee is Sustaining High Prices.
UK: CPI INFLATION & ENERGY COMPONENTS (%YOY)



Briefly, the EPG scheme has been operating to ensure that electricity suppliers will reduce domestic consumer electricity tariffs by an amount (in pence per kilowatt hour) for specified periods as decided by the government. The UK Treasury covers the large shortfall between supplier costs and household bills, paying financial support to electricity suppliers to allow them to make those tariff reductions. This is a huge intervention, potentially costing up to £200 billion over two years, compared with slightly less than £100 billion spent on the furlough scheme during Covid. The intended result is that consumers’ energy bills will be lower than they would otherwise be, by an amount that directly reflects the reduction in tariffs decided by

the Secretary of State (the government minister responsible). The entire amount of government support is to be passed on to consumers in the form of reduced tariffs.

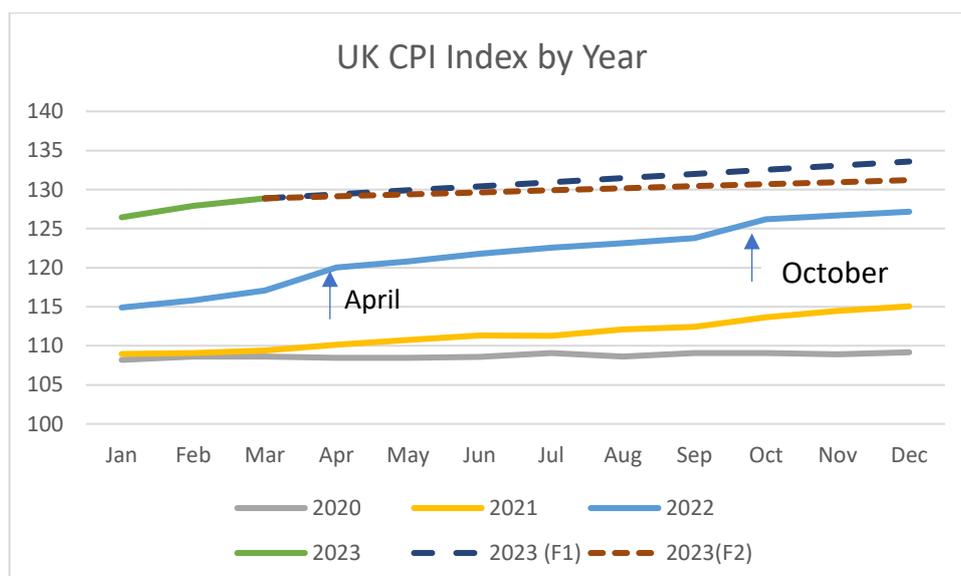
The effect of the EPG on inflation can perhaps be best seen by looking in Figure 5 at the behaviour of the components of the CPI most closely related to the wholesale markets for energy. The periodic changes in capping explain the six-month “steps” for electricity and gas prices paid by consumers. Inevitably, these regulatory changes lag behind market changes. This can be seen in the contrast between falling petrol and diesel prices (the orange line) since mid-2022 which are not subject to the same interventions, and the continued upward steps in electricity (red) and gas (blue) prices in the same chart. The latter two account for 4.9% and 19.6% of consumer spending.

3. UK Inflation Prospects in 2023.

The conclusion is that Britain has both a short-term and a long-term problem with energy prices.

The short-term problem is that, by shielding consumers and businesses from the true costs of energy during the past few years under the Ofgem energy price capping scheme, the government is delaying any adjustment of the energy market. Demand is greater than it would otherwise be, and the CPI is being artificially sustained by the government’s support of electricity and gas prices. Later this year, especially if wholesale prices fall further as a result of recessions in developed economies, the authorities could be compelled by market action and political pressures to cut prices rapidly.

Figure 6. Forecasting UK Consumer Prices over the Rest of 2023.



The long-term problem is that the average cost of electricity per kWh in the UK is 33.21p, 43% above the European average of 23p per kWh. The cost of UK natural



gas is around 80 pence per therm, which is equivalent to EUR 93 per megawatt hour, more than double the price in Europe of EUR 36 per megawatt hour.

Figure 6 shows the level of the overall UK Consumer Price Index by year. The big month-on-month increases in April (+2.5%) and October (+2.0%) 2022 show up very clearly in the central light blue line. Since these jumps will drop out of the year-on-year comparisons this year, the overall index will undoubtedly slow significantly during the remainder of 2023, despite the delaying effects of the EPG. The dashed lines for 2023 show two forecasts for 2023. The dark blue dashed line (2023 F1) shows monthly increases averaging +0.4% per month, which results in a year-on-year increase of 5.0% by yearend. The brown dashed line (2023 F2) assumes an average inflation rate of +0.2% per month, which results in a year-on-year increase of just 3.2% by yearend. Either way, UK inflation will be slowing during the balance of the year.

Summary and Investment Conclusions

- UK broad money growth has been on a downward trajectory since it peaked at 15% year-on-year in February 2021, just over two years ago.
- However, CPI inflation peaked at 11.0% in October 2022, and remains at 10.0% as of March 2023.
- Based solely on M4x growth, inflation should have fallen further and be on course for a year-on-year rate of about 5% by yearend.
- Despite a substantially lower broad money growth rate in the UK than in the United States in 2020-21, UK inflation peaked at a higher rate (11%) than US inflation (9.1%) and has remained higher than in the US or the euro-area.
- There appear to be two possible reasons for the UK's higher inflation.
- First, Britain's terms of trade (the ratio of export prices to import prices) have deteriorated during the past three years of the pandemic and recovery from it.
- Second, the government imposed an Energy Price Guarantee to protect consumer budgets from the very steep jump in energy prices after the Russian invasion of Ukraine in February 2022, but the effect of those price controls has been to prolong high prices for UK consumers.
- This effect can be seen by comparing wholesale prices for crude oil and natural gas with the prices faced by consumers for their retail equivalents, as recorded in the components of the CPI. Wholesale prices have already declined while the retail prices faced by consumers remain at elevated levels.
- Looking forward, the year-on-year inflation rate should drop significantly with the release of the April and October consumer price indices as these were the two months in 2022 when prices increased most steeply (+2.5% and +2.0% respectively).
- By yearend, even with the delayed response of prices in Britain to wholesale market prices, inflation could fall to 5% year-on-year, and possibly as low as 3.2%. This would enable PM Sunak to fulfil his pledge to halve the inflation rate this year.



- Recently, sterling has been strong against both the USD and the EUR on the basis that Britain's elevated inflation would mean the Bank of England continued to raise rates. If my forecast for yearend inflation is correct, interest rate expectations will reverse, and sterling will give up its recent gains.
- The prospects for equities are more problematic. Although expectations of lower interest rates in 2024 will encourage higher PE ratios, the very real prospects of a recession in late 2023 along with falling margins and earnings will act as a counterweight. A genuine stock market and economic recovery will not come until 2024.

Disclaimer

The information in this report has been prepared by International Monetary Monitor Ltd. (IMM). Materials available herein have no regard to the specific business objectives, financial situation or particular needs of any specific recipient. The research is published for information purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. The opinions, estimates and projections in this report reflect the current judgment and express views of the author as at the date of the report. They do not necessarily reflect the opinions of IMM and are subject to change without notice. Unless specifically stated otherwise, all price information is indicative only. No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness, or reliability of the materials, nor are they a complete statement of the securities, markets or development referred to herein. The material should not be regarded by recipients as a substitute for the exercise of their own judgment. The financial instruments discussed in this report may not be suitable for all investors.

Copyright © 2023 International Monetary Monitor, not for distribution without express permission.
Registered office: c/o PKF Littlejohn, 15 Westferry Circus, Canary Wharf, London E14 4HD, UK.