

Price and Monetary Policy Transmission in a Globalised Economy – speech by Swati Dhingra

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Speech

Introduction

It is a pleasure to be here at MMU. Manchester is a focus area for our Economy 2030 Inquiry, a collaboration between the Centre for Economic Performance at LSE where I am based and the Resolution Foundation, to develop a new economic strategy for cities to lead growth in the country.

Speaking in Manchester, I guess there are huge congratulations due to some for the blue treble, but I suppose there's a red corner that may not be as happy! From football to the cotton mills of Gaskell and the heritage of the many music landmarks, Britain's ability to punch above its weight in the world owes much to this vibrant city. It also makes it a suitable place to review the UK's interaction with the global economy, and its consequences for individuals and families across the country.

This afternoon I am going to argue that advances in our analytic toolkit, together with data innovations, are the vital route to a clearer and timelier understanding of the economy. These changes are needed – both at the micro and macro level – to facilitate better evidence-based policymaking. They are necessary for measuring the nature, scale and duration of UK economic outcomes, and so they are important for accurately calibrating monetary policy.

There is no doubt that inflation, whilst beginning to ease off its peak last year, is still far too high relative to our two per cent target. We are committed to returning inflation to target sustainably in the medium-term. An agenda to develop our statistics and analytic techniques, building upon efforts to date, will help us answer why inflation is currently above target and how monetary policy should respond. Given the economic challenges and technological advances we are currently experiencing, including the growth of data collection methods and the emergence of more robust modelling techniques, now is a decisive time to drive forward these changes.

We are in a globalised economy

One fundamental development since the last high inflation episodes of the 1970s and 1980s has been the fragmentation of production and supply in an increasingly globalised world. Central banking toolkits and economic statistics across the world simply have not kept pace with this development. Right now, we therefore have at best an imprecise understanding of the dynamics of product markets and supply chains and their role in determining price inflation. This presents data challenges that have been compounded by the growth of services, which are dominant in the UK economy. It is far harder to measure

price and productivity dynamics in services than in the traditional manufacturing sector, which we know a lot more about. As a small open economy that is highly reliant on global value chains for consumption and services for production, these developments are particularly relevant for us.

The value of the UK's international trade is over 60 per cent of UK GDP. This compares to **25** per cent in the United States that has a much larger domestic market and is closer to Germany's trade of about 50 per cent outside the European Union.¹ Together with the UK's large exposure to gas, this means that the terms of trade shocks that have arisen since the pandemic and the Ukraine war have resulted in very big impacts and adjustments in the UK economy.

In fact, it has generated sizable differences in UK economic performance relative to some other advanced economies. A direct loss greater than 2 per cent of GDP from the trade in goods deficit has had widespread repercussions across the economy. It is hard to overstate the importance of this for monetary policy and inflation targeting.

Why? Well one big consequence that we see all over the country is a significant reduction in living standards. Real pay has been falling for almost all the workforce since last year. This has had profound implications for many. Some are having to **skip meals** due to the cost-of-living crisis, and food banks have reported more than a one-third **increase in food parcels** since last year.

The operation of global supply chains and their impact on prices is critical to understanding the evolution of the cost-of-living crisis. We need to look at what has happened to price setting for firms, alongside what consumers are spending their money on.

Producer and consumer price inflation

I find it striking that, amidst all the recent commentary over inflation surprises, there has been so little discussion of the degree to which headline producer price inflation has dropped. Bank researchers and I have recently been looking at what has happened in this sphere.

What have we found? We know from standard economic principles that producer price inflation measures the growth in prices that domestic producers charge in the UK. Consider an example, for tomato ketchup. PPI measures the price paid by UK ketchup distributors to ketchup producers. We would typically expect that if the price charged by producers is dropping, then consumers would also see the shop price of tomato ketchup fall, albeit with some delay. Unfortunately, we do not currently know much about the

¹¹ Germany's non-EU trade was **48** per cent of GDP in 2018 (before the pandemic) and **53** per cent in 2021, and EU trade is about 50 to 60 percent higher. See Martin and Reynolds (forthcoming) for a discussion of aggregate intra and extra-EU trade.

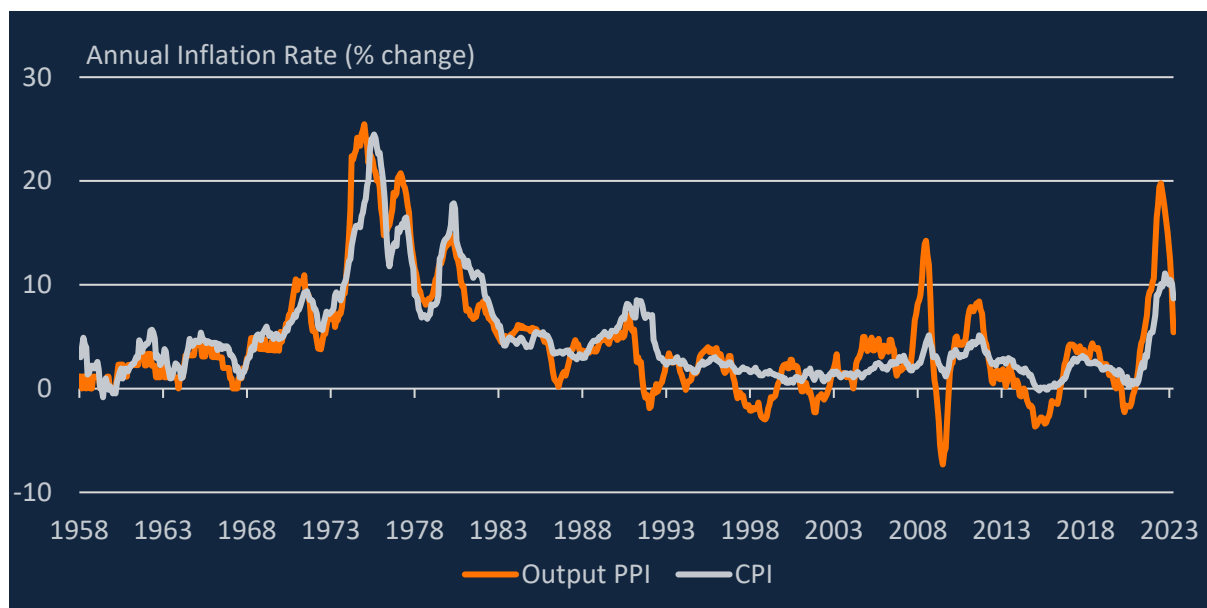
precise nature of this lag structure and how it operates. But by looking at data on the evolution of producer and consumer prices over time, we can learn more.

Figure 1 gives the long term picture. It shows producer price inflation (PPI) and consumer price inflation (CPI) since the 1950s, when data collection on them began. The chart shows that PPI and the CPI inflation have mostly co-moved tightly throughout the past 70 years. Closer inspection however reveals some important observations. The two series co-move closely in many years, but when sizable shocks occur there are disparities in the rate of change and in their timing. These disparities are clear in three episodes of large shocks: the early to mid- 1970s (when the big oil price shocks occurred); the global financial crisis (when shocks to many commodity prices occurred); and the current period (in which the war has triggered large movements in the price of energy and other commodities).

In each of these periods, the chart makes it clear that increases in consumer price inflation lag increases in producer price inflation. The same occurs on the way down too. And these patterns of PPI leading CPI are evident in the United States historical series too, though possibly with shorter lags recently (Figure A1 in the Appendix). This must surely have implications for where we are now, and where we are going.

The latest shift is a sharp drop in producer price inflation, but not an equivalent drop in consumer price inflation. Looking ahead, therefore, the key question is whether this sharp drop in producer price inflation will manifest in reduced consumer price inflation as it did in previous inflationary episodes, albeit with a lag.

Figure 1: Co-Movement in the Annual Rate of Producer Price Inflation (PPI) and Consumer Price Inflation (CPI) in the United Kingdom, 1958 to 2023



Notes: Consumer Price Inflation, (Domestic) Output Producer Price Inflation each month relative to the same month a year ago.

Before exploring this further, let me highlight some issues. Lower response rates by firms and a general decline in the manufacturing sector could reduce the reliability of producer price figures, which has been an issue in certain firm and worker surveys recently. This does not seem to be a key driving factor in the recent divergence because producer price inflation measures in the European Union show similar episodic patterns, providing some reassurance that UK PPI figures are not unusual. That being said, direct cross-checks with EU data will become more difficult in the future because Eurostat is no longer reporting harmonised statistics for the UK following our departure from the EU. For now, the PPI data aligns with EU data sources and with real-time price indicators for the UK that come from alternative sources, such as PMI indices.

I am now going to look in more detail at the current inflationary episode. Figure 2 shows PPI and CPI inflation from December 2019 to April 2023. I have already noted the increased importance of supply chains and services in today's globalised economy, and so have added services inflation and input price inflation – which includes the price of inputs imported and produced domestically -- to the Figure.

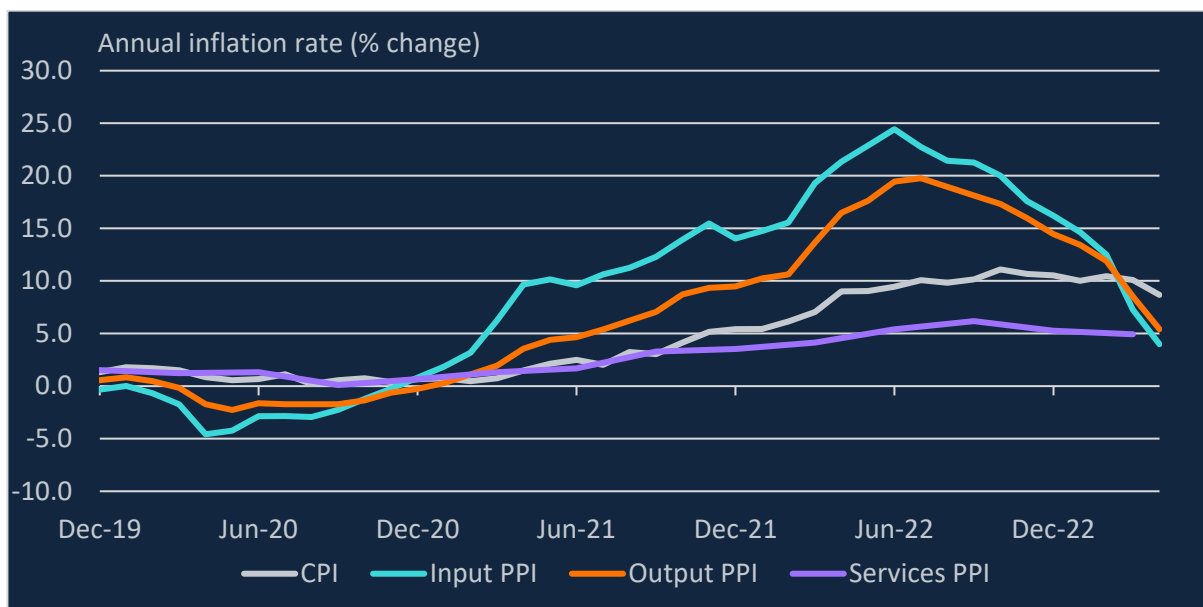
What does it show? Output producer price inflation has closely tracked the rise in input price inflation that UK producers have faced in the period after the pandemic. Moreover, as input price inflation has fallen since June 2022, so too has output price inflation, from its peak rate of 19.8 per cent in July 2022 to 5.4 per cent in April 2023. Moving beyond physical goods that are measured in input and output PPIs, producer price inflation in services provided by UK businesses is also falling.

Goods and services have imported content embedded in them, and in many cases, their prices are set in global markets. The global dimension is closely connected to, and strongly correlated with, the evolution of input prices and domestic producer prices. Easing of global price pressures is starting to show up in a slowdown in domestic producer price inflation.

Let's go back to the timing. Should we expect consumer price inflation to start to fall in tandem with producer price inflation and, if yes, with how much of a lag? Or are there costs or margin increases at the retail stage of the supply chain that might prevent consumer prices from following the drop in producer price inflation? With our current knowledge set, these are not the easiest questions to definitively answer. But they are important, and again central to monetary policy, and so we should try.

In terms of the earlier tomato ketchup example, if producers are charging less for their ketchup, it should show up as reduced ketchup prices for consumers. But this could take some time if the supply chain is sequential. If it does not, then either retailers are keeping the cost savings to build their profit margins. Or, they may be incurring some other cost increases which are offsetting the producer price reductions and hence consumers are not seeing the grocery price for tomato ketchup falling.

Figure 2: Trends in Input, Output and Services Producer Price Inflation and Headline Consumer Price Inflation



Notes: Consumer Price Inflation, (Domestic) Output Producer Price Inflation and Input Producer Price Inflation month on the same month a year ago. Services PPI inflation quarter on the same quarter a year ago.

More generally, but in the same vein as the ketchup example, the dramatic rise in production fragmentation, supply chains and services in the domestic and global economy has fundamentally changed the transmission of international supply shocks to consumer prices. For example, price-setting is more complex when there are multiple stages and

firms involved in the journey of a product from the producer to the consumer. And even more so when inputs and services are tailored to the supply chain and governed by many underlying buyer-seller contracts, explicit or implicit. Each stage of supply chain fragmentation comes with some bargaining between buyers and sellers and the final price faced by consumers is an outcome of several layers of negotiations and price-setting between different firms (see Antras and Chor 2022, Antras and Staiger 2012). This chain of intermediate price-setting forms a wedge between producer and consumer prices and could be behind the current divergence of PPI and CPI inflation. Or it could be the notion that has been appearing in more discussions that firms are making profits from the situation (in media circles, termed as “greedflation”).

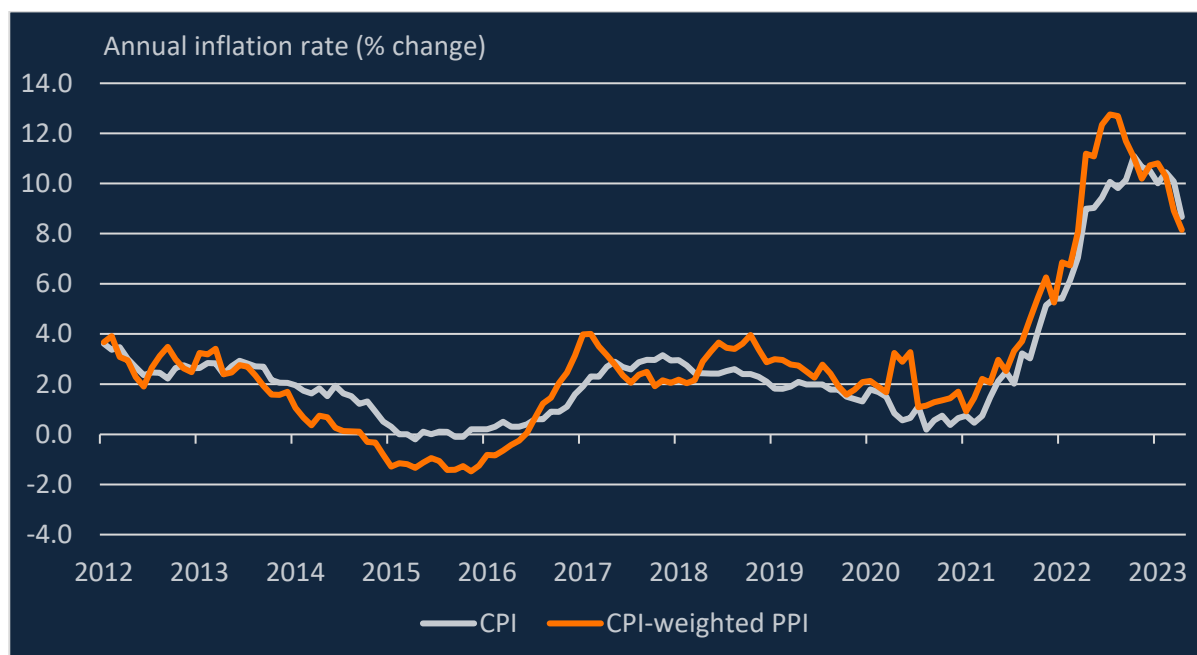
A starting point to try and understand this better is to account for differences in the consumption and production basket of goods and services that are used to compute the indexes. They are not the same and this composition matters: the goods and services that we consume are very different from those that we produce.

To be clearer, the consumption basket used to compute the CPI relies heavily on imports, which have experienced sharp price increases since the pandemic - particularly for essential commodities. The PPI does not capture this direct import dynamic, as its basket is only domestic goods and services. This might not have mattered fifty years ago, but in today’s global world, it surely could.

So, how might this change if we standardise the PPI and CPI to the same set of goods and services? Figure 3 plots consumer price inflation together with (domestic) producer price inflation for all items in the consumption basket, weighted by CPI consumption basket shares for each item. Producer price inflation for items in the consumption basket has not fallen as sharply as the aggregate output producer price inflation shown in Figure 2. Keeping the composition of items the same for consumer and producer price inflation shows that there is still largely a tight relationship between them, with the turning point in producer price inflation occurring about 6 months before that in consumer price inflation.

The divergence in producer and consumer price inflation in the aggregate statistics overstates the difference between items that are in the consumption basket. Moreover, headline CPI inflation is co-moving with its counterpart PPI inflation on both the way up and down, but with some lag. Although PPI inflation remains considerably elevated, its steep decline across goods and services indicates easing external price pressures. This supports wider evidence, such as lower energy price growth and some unwinding of global supply constraints.

Figure 3: Co-movement of CPI and Consumption-Weighted PPI of All Items in the CPI Basket, 2012 to 2023



Notes: Consumer Price Inflation month on month a year ago (red) and Producer Price Inflation month on month a year ago (blue) for all items in the CPI basket and weighted by CPI weights for each month-year. Services PPI inflation statistics are quarterly and assigned the same value for each month within a quarter. They are not available for April 2023.

Micro foundations of macro changes

Going further, we can conduct a like-for-like comparison for every item in the consumption basket. This provides some promising news. For 72 out of the 83 items in the consumption basket – 88 per cent of consumption in value terms – both producer and consumer price inflation has begun to fall.² The tight co-movement in consumer and producer price inflation in Figure 3 is therefore broad-based across the consumption basket, though there are delays in the turn in consumer price inflation.

The transmission of price changes through a supply chain occurs with variable lags. Over the past thirty years or so, research has attempted to understand the relationship between producer and consumer prices (Jones 1986, Clark 1995). Factors such as the raw commodities of interest, the structure of the economy in question and the nature of the shock – is it driven primarily by demand or supply, externally or domestically, and so on – have a crucial bearing on the interaction between these prices. The growth of supply chains and services, which are harder to measure than goods, have made this task of pinning down the transmission process even more difficult. Statistics on supply chains and the buying and selling prices along the stages are almost non-existent, and this poses

² In order to map items from CPA to COICOP, we have slightly modified the number of categories. All information from the official CPI basket are captured in our approach.

considerable challenges for understanding inflation dynamics and calibrating to the optimal monetary policy stance.

Recent estimates for the United States that account for input-output linkages suggest that the effects of an oil shock on US consumer inflation can take over two years to build fully (Minton and Wheaton, 2023). Turning to the UK, a simple error-correction model that expresses consumer price inflation as a function of producer price inflation, suggests that in “normal” times, around 60-70% of increases in producer output prices are passed through to consumers, with the majority being passed on one to two quarters after the shock. This would be consistent with an earlier fall in headline producer price inflation. But given the present high inflation environment and the unique structure of the UK energy and food markets, many of these estimates from more normal times are less likely to apply precisely to the current experience.

Let’s now look at the 10 items in the consumption basket which have consumer price inflation continuing to rise even as producer price inflation has fallen back.³ Table 1 shows those items that have experienced a turning point – downwards – in producer price inflation but not for consumer price inflation through the latest month – April 2023 – for which data are available. Most of them are food and food-related items, and they form the bulk of the divergence in consumer and producer price inflation. While producer price inflation rates of fruit, vegetables and other food products have come down substantially from their peaks, there has been a tiny drop in producer price inflation from its peak in alcoholic beverages and tobacco. The global energy shock was followed by a global food price shock, which has been critical for consumer food prices in the UK. We can therefore focus on food items to examine whether the divergence in consumer and producer prices is driven by imported food items, lags in transmission of international price dynamics, or by other cost pressures and profit margins of food retailers.

³ One remainder item has not seen either producer or consumer price inflation fall back, but it makes up a very small share of the consumption basket. Cleaning, repair, tailoring and hire of clothing makes up 0.1 per cent (1 out of 1000 parts) of the consumption basket and the latest quarterly data is not yet available.

Table 1: Ten Items in the Consumption Basket where Producer Price Inflation and Consumer Price Inflation Have Not Fallen, April 2023

Item Code and Name	Item Weight %	CPI Inflation %	PPI Inflation %	Peak PPI Inflation %	Month of Peak PPI Inflation
01.1.6 Fruit	1.0	10.8	3.9	27.5	July 2022
01.1.7 Vegetables including potatoes and tubers	1.5	19.9	7.1	19.5	October 2022
01.1.9 Food products, not elsewhere classified	0.5	30.0	11.1	16.0	October 2022
02.1.2 Wine	0.9	5.7	13.3	13.5	March 2023
02.1.3 Beer	0.6	10.0	13.3	13.5	March 2023
02.2 Tobacco	2.1	11.0	13.3	13.5	March 2023
06.1.1 Pharmaceutical products	0.7	9.8	4.1	4.9	March 2023
09.1.3 Data processing equipment	0.4	4.4	6.3	8.3	February 2023
09.2.1 Major durables for in/outdoor recreation and maintenance	0.8	5.5	2.5	9.4	May 2022
09.3.4 Pets and related products and services	1.3	16.0	13.7	20.3	October 2022

Notes: Due to small numbers of producers, alcoholic beverages and tobacco are combined in producer prices data. CPI and PPI inflation are month on month a year ago.

Food inflation and “greedflation”

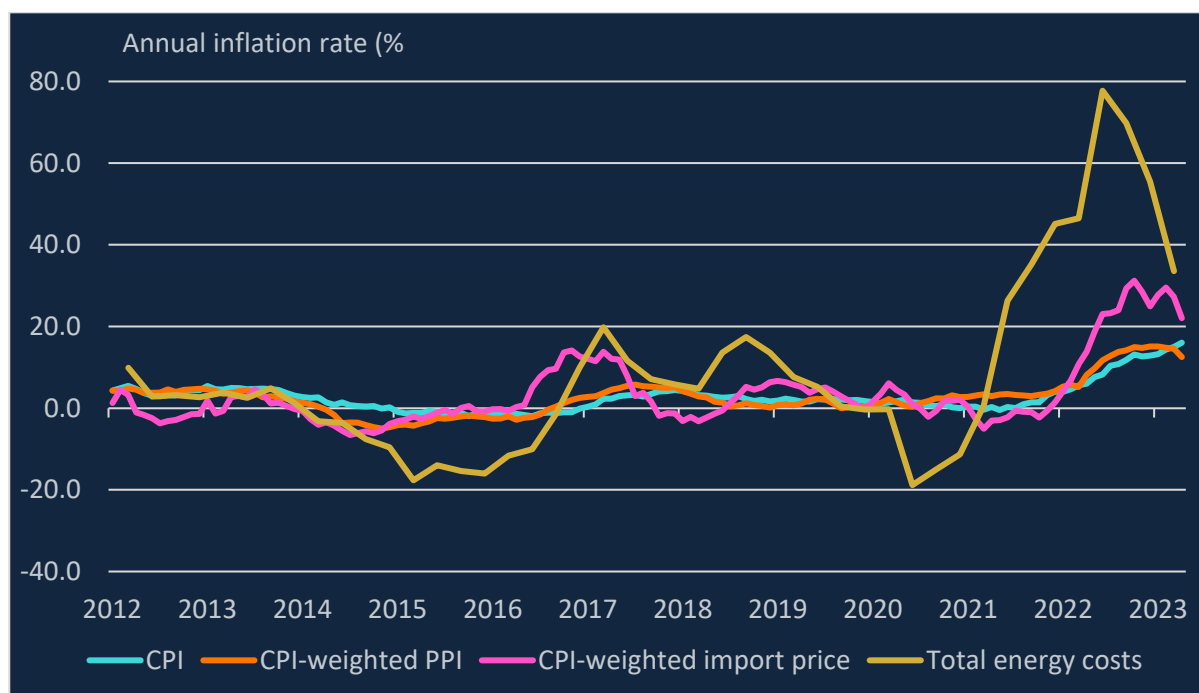
Honing in on food items, Figure 4 plots the time series of consumer price inflation together with producer price inflation for items that belong to Food, Beverages and Tobacco,

weighted by CPI consumption basket shares for each item within the category. Have they diverged recently because imported food prices are rising more than domestic food prices? Or, is it because of downstream cost pressures or oligopoly price-setting generating higher profits for retailers? Or is it to do with the staggered nature of energy and import contracts that have delayed the transmission of sharp increases in prices in the past?

Possibly the biggest constraint in answering this question is a lack of price data on imported consumer items. The ONS is quite unique among statistics authorities in providing consumer price quotes for all items underlying headline consumer price inflation. This has enriched our understanding of price dynamics and has provided high-quality and timely inputs into decision-making. But because the price statistics do not identify the country of origin, the policy-relevant distinction between the extent to which imports for final consumption are driving a wedge between consumer price inflation and producer price inflation cannot be fully understood. In other words, because a lot of the tomato ketchup we consume come from abroad, the price charged by UK producers for their ketchup is an insufficient metric for assessing the evolution of consumer prices of ketchup. The distinction between domestic and imported prices is important for calibrating monetary policy.

A partial answer can be inferred by comparing the evolution of consumer price inflation with producer price inflation and imported inputs price inflation for the same item. To fix ideas, we see the price of tomato ketchup that consumers pay and the price of ketchup that UK suppliers charge to groceries and other businesses. These are respectively recorded in the consumer price and producer price inflation numbers. But we only see the price of imported ketchup that is bought and used by groceries for their own consumption, such as to put in sandwiches and burgers. We do not see the price of imported ketchup that consumers buy from the grocery. Consumer prices do not make a distinction between domestic and imported items, which can be important for many products that are reliant on global price-setting.

In the absence of data on imported consumer items, only imported input prices of the grocery are available to us. We will need to use this as a proxy for the price of imported tomato ketchup that the consumer pays for and that may be driving a wedge between consumer price inflation and domestic producer price inflation. The proxy seems reasonable in this example of ketchup, but in other contexts this is not an accurate depiction because items for business and household consumption can be very different or operate in highly segmented markets. Then both domestic and imported producer price inflation figures are needed to understand price dynamics.

Figure 4: Divergence of PPI and CPI Inflation in Food, Beverages and Tobacco

Notes: Consumer Price Inflation month on month a year ago (red), Domestic Output Producer Price Inflation month on month a year ago (blue) and Imported Price inflation month on month a year ago (pink) for all items in Food, Beverages and Tobacco (Coicop 01 and 02) and weighted by CPI weights for each month-year. Total energy cost inflation month on month a year ago (orange) from Input-Output Tables and weighted by the share of total energy in each sector and the GVA weight of the sector based on calculations in Dhingra and Page (2023).

Figure 4 shows that upstream cost pressures have generally eased with the fall in energy and imported food input price inflation, suggesting that contemporaneous energy and imported food prices are not a driving factor for the wedge between consumer and producer food price inflation. But there could be additional domestic cost pressures that food retailers are incurring that might be offsetting the drop in producer price inflation. For example, labour cost pressures in the food retailing sector have increased as some retailers have taken measures – such as one-off payments – to support their staff during the cost-of-living crisis.⁴ Wages are lower than average in these sectors, and wage growth is expected to ease over the year, according to Agency intelligence and faster-moving indicators (REC Report on Jobs, May 2023).

Profitability in the retail food sector has come under close scrutiny. Unfortunately we have little direct information on margins of domestic suppliers and sellers, which severely limits the ability to assess whether margin building or rebuilding in retail is driving a wedge between consumer and producer food price inflation.

Profitability statistics are notoriously poorly measured and report accounting profits rather than pure margins (Van Reenen 2018). The profitability and rate of return on capital

⁴ Also see Haskel (2023) for a discussion of nominal accruals to workers and firms during this period.

statistics published by the ONS for three categories of firms – manufacturing, services and continental shelf companies – do not show a sharp rise in aggregate profitability, except in the third category. Services firms differ a lot from each other, so average profitability of the services sector could be hiding relevant heterogeneity across retailers and other firms within the services sector.

Company accounts – in the UK and overseas – provide an imperfect picture, especially because they are often collected for large domestically listed companies that also report their profits from all activities and from earnings in other countries. This severely limits the ability to assess whether margin building in retail is driving a wedge between consumer and producer food price inflation.

We can examine balance sheet information available through analytics providers. However, the coverage turns out to be too spotty to make representative statements in real time or over long periods of time (due to changes in reporting standards and data collection practices).

The accounts of the main supermarkets in the UK can be downloaded from their mandatory filings of company accounts. We have been able to obtain profitability information from the accounts of six major supermarket brands, which make up about three-quarters of grocery sales in the country (Table 2 in the Appendix). Some operate in multiple segments such as finance and property. We have therefore examined the profits they report for their retail or food sales, which is closest to our focus on consumer food price inflation here. The definitions of profits that are reported differ somewhat across supermarkets, but we can obtain a consistent picture for each supermarket.

Despite all the caveats with profits from company accounts, as long as companies use the same accounting standards over time, their reported profits contain valuable information on trends in margins. This data indicates that profits and profit margins are not rising as might be expected in the event of margin rebuilding by supermarkets. This differs from the United States where there has been some reported increase in company profitability, which has been interpreted as a factor contributing to inflationary pressures (Weber and Wasner 2023).

The balance of evidence suggests that the large cost pressures are slowing and profit margins are not rising in the UK. Transmission of producer prices takes time. It is likely that the same is true for the transmission of prices of imported consumer items that we do not observe directly, but which possibly peaked later than energy price inflation. A more likely explanation for food price inflation is the lagged transmission of the big international supply shocks. The initial global energy price shock and the concomitant rise in food prices are still likely to be at work in this inflationary period.

Data for inflation targeting

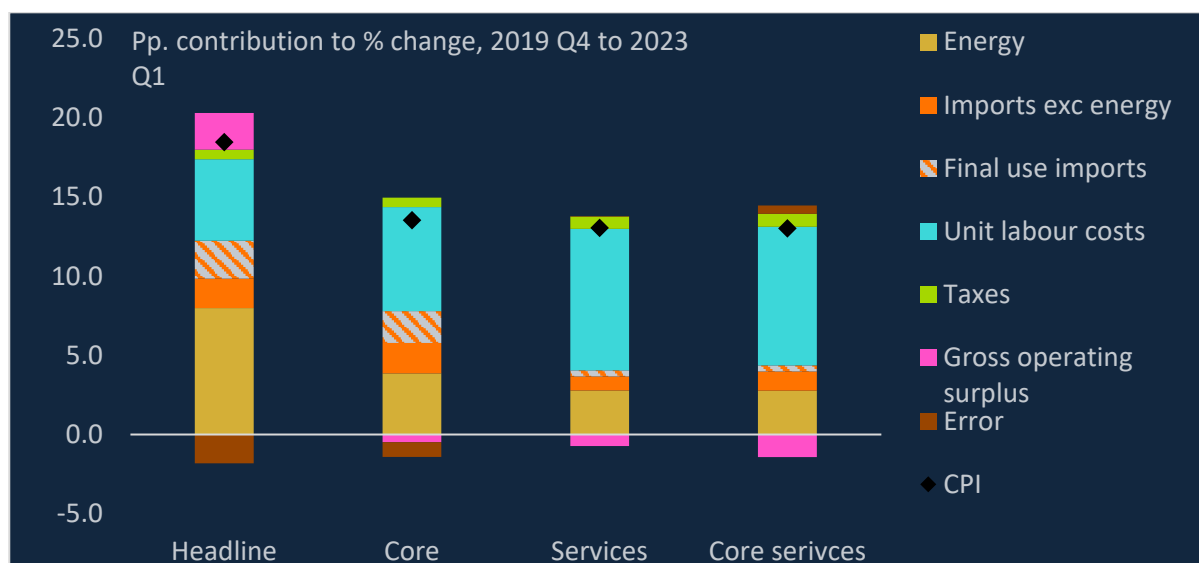
Transmission of international shocks and monetary policy works with lags. Policymakers therefore need to understand price dynamics to gauge the evolution of future inflationary pressures. Information on product markets and their working are essential if we want to get more precision when taking crucial decisions to meet the inflation target on a narrow path. Microdata on consumer prices is providing much needed information to help rule in or rule out theoretical explanations for inflation dynamics (Davies 2022). It is also helping us understand that with food and housing rental costs rising, the burden of inflation is falling disproportionately on poorer households.

The example of food prices highlights the micro foundations of the macro inflationary pressure that we are seeing now. Price statistics along the supply chain and profitability data for firms are needed across the entire economy to accurately pin down the nature, scale and duration of these outcomes. Aggregating from the micro to the macroeconomy is important for accurately calibrating monetary policy.

The Bank's Agency intelligence and various industry experts already provide insights into specific sectors. These timely tools bridge information gaps as they arise. But they are a complement rather than a substitute for better data collection along the supply chain specifically, and on the UK's interaction with the world economy more generally.

This highlights the importance of improving our data – something I am aware the ONS is working hard to deliver. The international dimension of our economy needs to be on the agenda for future progress on data and statistics. Data advances are also a subject of debate in other areas of public policy such as migration and economic activity (see Bell and Johnson 2023, Hall, Manning and Sumption 2023 and Machin and Wadsworth 2023).

Analytical methodologies from the global value chain literature are also helping us to understand the indirect spillovers of the terms of trade shock. Supply-use tables show that energy use extends to most sectors of the economy, including those goods and services that are otherwise often classified as “non-tradable.” For example, services such as residential and care homes need electricity to keep them warm. These supply-use methods also reveal that measures such as core inflation, which may be useful to gauge underlying inflation during periods of demand-related booms, are not particularly good measures of domestically-generated inflation during an energy crisis. The consumption items that make up core inflation, such as clothing, durable household products, and trips to the cinema, are highly reliant on energy and imported inputs (Dhingra and Page 2023). Services and core services, which have been emphasised by the MPC, have relatively lower shares of energy and imported content. Developing better measures of underlying inflation, that stand the test of limited indirect effects, offers a promising yardstick to ascertain future inflationary pressures from domestic sources.

Figure 5: Proximate Sources of Headline and Core Inflation During the Cost-of-Living Crisis

The economic environment has become more uncertain due to more polarised geopolitics and more extreme weather events. Therefore, investment in the analytical infrastructure will provide large rewards in terms of managing impacts and targeting policy to where it is needed most.

The imprecision of forecasting medium term outcomes means investing in the data and analytical infrastructure can help us prepare for future uncertainties. Granular data and techniques from the credibility revolution in economics – leveraging quasi and “natural” experiments to estimate policy impacts -- can overcome some of the challenges posed by short time series during large shocks (Angrist and Pischke 2009, see Card 2023 for applications to minimum wage policies). Leveraging the cross-sectional variation in price movements across many commodities enables an assessment of the sources, scale and timing of the pass-through of shocks to consumer prices. Data innovations can make this more achievable, including for example, through analytics companies and big data (such as energy contracts data and shipping data), developments in national statistics (such as availability of scanner data and online collections) and mandatory data collection (such as tax records, value added transactions and detailed company accounts).

Outlook for the monetary policy horizon

The lags in monetary policy transmission imply that there is little we can do to affect inflation in the immediate future, and we will always need to monitor the progress of the economy closely to calibrate the monetary policy stance over the medium term. The progress in collection of mortgage data from banks is already helping to quantify the transmission of monetary policy through the housing market.

Staff analysis indicates that monetary policy transmission to retail borrowing rates is happening as expected. Average quoted interest rates on mortgage lending were over 300bps higher than November 2021, before this tightening cycle started (Monetary Policy Report, May 2023). And yet there are reasons to suspect that policy transmission will be slower than previous cycles. The large stock of fixed-rate mortgages delays the pass-through of a higher Bank Rate to households, but it is already starting to add to ongoing pressures for families that are renting or negotiating in the mortgage market. Agency reports indicate that firms also anticipate further pass-through of monetary policy. Today's labour market data release underlines how these effects take time to transmit to wage growth, and reiterates the need to illuminate these complex relationships with an improved analytic toolkit. Overall, data outturns indicate that the economy is starting to recover from the large supply shocks – albeit with ongoing hardship for some of the most disadvantaged individuals and families in our society.

While the effects of our steep tightening cycle are building, further micro and macro analysis of profit margins and inflation in salient consumer items such as food will be particularly informative. But international factors are more uncertain, and we will need to update our understanding of the transmission of global shocks to UK consumer price growth.

I have focussed in this talk on the importance of global factors for the episode of high inflation that UK businesses and families are struggling with. The cost-of-living crisis is not over. Although monetary policy cannot directly address underlying structural and distributional issues, it can return inflation to target sustainably in the medium-term. Indeed we are committed to ensuring this happens. Low and stable inflation is the best contribution that monetary policy can make to macroeconomic outcomes and welfare. The past few years have highlighted how important it is for policymakers to understand the transmission of shocks. Insofar as the evolving realities of geopolitics and climate change leave us more exposed to global uncertainties, we need to proactively develop the data and analytic infrastructure to address the past, current and forthcoming challenges.

I would like to thank Andrew Bailey, James Bell, Ben Broadbent, Oliver Davies, Chris Duffy, Edward Hall, Jonathan Haskel, Zaar Khan, Josh Martin, Jake Mulcahy, Jack Page, Huw Pill, Dave Ramsden, Martin Seneca, Fergal Shortall, Silvana Tenreyro, and Carleton Webb for their helpful comments and input.

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