# From NICE... to not so nice speech by Ben Broadbent

Given at the Bank of England

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Ben surveys his time on the Monetary Policy Committee (MPC). He explains how the UK economy has been subject to several large, global shocks that have affected supply and costs more than demand. In that environment it is all the more important that monetary policy be conducted by an independent authority in pursuit of a fixed inflation objective.

### Speech

#### Introduction and summary

Good morning! Thank you for asking me here today. After thirteen years as a member of the MPC this is my thirty-eighth and last speech and I wanted to offer a few reflections from that experience. I will also say something about the current outlook for inflation.

It's certainly been an eventful time. I joined the Committee in 2011, when the economy was still feeling the effects of the global financial crisis (GFC) three years earlier. That was then followed by the Euro area debt crisis, which perpetuated the credit squeeze in this country. After a period of relative calm we then went through the EU referendum and the negotiations that ensued, followed at the start of the current decade by the enormous effects of the pandemic and Russia's war in Ukraine.

Mervyn King once described the years preceding the GFC as the "NICE" decade (standing for "Non-Inflationary and Consistently Expansionary"). I'm not sure how one would characterise the period since ("Not-AS-Tranquil Years"?). But, if his description was designed as a warning that we couldn't expect such stability to last indefinitely, he's certainly been proved right.

Rather than going through these events individually I want to have a go at drawing some general conclusions from them.

From an economic perspective, two things strike one straightaway.

First, none of them involves simple shocks to aggregate demand. Arguably, macroeconomics – certainly the Keynesian macroeconomics taught to students – was born of an era (the Great Depression) characterised by a chronic shortage of spending. That may be why students are taught quite a bit about the determination of demand but less, at least to begin with, about the behaviour of supply and costs.

But while these events had at least some direct impact on demand - there's no doubt, for

example, that business investment in the UK suffered from tighter financial conditions during the GFC and the Euro area debt crisis and then again from the uncertainty about the UK's trading relationships after the EU referendum – these were outweighed, as far as inflation is concerned, by their impact on costs and supply. The depreciations in sterling's exchange rate in 2009 and 2016 led to periods of above-target inflation, notwithstanding any dampening effect on confidence and spending. The pandemic – to take a more extreme example – raised the cost of globally traded goods by so much that, even after GDP fell by more than a fifth in 2020, inflation rose significantly the following year, in the UK and across the developed world. So the notion that economic fluctuations are dominated by disturbances to aggregate demand, against a backdrop of an unchanging supply schedule, simply isn't – or at least hasn't been – true. In contrast to the earlier period, the correlation between output growth and changes in inflation has if anything been negative since the early 1990s (Chart 1). This doesn't necessarily mean that supply-type shocks have become more common, as I'll explain in a bit. But that certainly seems to have been the case in the past decade or so.

## Chart 1: Activity and inflation positively correlated before early 1990s, negatively correlated afterwards



Sources: ONS, Bank calculations. Two-year rolling averages. Orange line is change in annual inflation, measured as growth of the consumption deflator, one year forward.

The second obvious feature is that, with the exception of Brexit (and even that involved the UK's external trading relationships) all these disturbances were global in origin or common across many countries. The UK is a relatively small, relatively open economy. The benefits of openness

shouldn't be under-appreciated. We're able to buy and consume things that would be more costly (or even impossible) to produce at home; we have access to new technologies developed elsewhere in the world; when there are domestic shocks, we can defray some of their effects via shifts in the trade balance or in financial flows.

But alongside all that, openness also means we're more sensitive to global shocks. Chart 2 plots the correlation coefficients between GDP and domestic demand growth here and their counterparts in the UK-weighted world. On the reasonable assumption that any causation runs from the second to the first (the UK is too small to have much bearing on economic activity in the rest of the world in aggregate) this says that at least 90% of variations in UK growth over the past fifteen years have been caused by foreign (or at least common) shocks. Nor has this occurred simply via swings in the demand for UK exports: even movements in domestic demand have been increasingly tightly correlated with the world economy (the aqua line). For what it's worth, developed economies have also seen very similar short-term movements in inflation over the past few years[1].



#### Chart 2: UK and global economies tightly correlated over the past twenty years

Sources: ONS, <u>Thomas and Dimsdale's Millennium of UK data (2017)</u>, <u>Historical Statistics of the World Economy</u>  $\square$ , <u>Penn World Tables 10.01</u>  $\square$  and Bank calculations. Until 1960, UK-weighted world GDP (domestic demand) growth is the weighted average of US and Europe's GDP (domestic demand) growth.

Anyhow, all I want to do today is to outline some possible implications of these things for monetary policy. I certainly won't claim to be comprehensive. (Like the writer himself, readers will be relieved that, after churning out a series of ever-longer talks, I've managed to keep this one a bit shorter.) In

the first section I'll go through some more evidence on both these points, explaining why the provenance of economic shocks (home versus abroad) matters less than their nature (are they driven more by demand, on the one hand, or costs and supply on the other?). I'll also argue that, in the presence of such these supply-type disturbances, which have the capacity to push inflation and output in different directions, it's all the more important that monetary policy be conducted by an independent authority, in pursuit of a fixed nominal objective. There's a short concluding section that considers the relevance of all this for current policy.

#### The UK as a small open economy

To some degree, given the rapid globalisation in the years leading up to the GFC, this increasing inter-dependence is only to be expected. Indeed, if one of the benefits of openness is that it allows countries to insure themselves against idiosyncratic, country-specific shocks, perhaps we should see the rising cross-country correlation of domestic spending as a good thing – increasingly, all that's been left are the common, uninsurable risks.

For what it's worth, however, I suspect that the particularly tight relationships between UK and global growth over the past couple of decades are as much happenstance as anything else[2]. The surge in global trade and openness came to an end well over a decade ago (Chart 3). And, since then, we happen to have been subject to extremely large, internationally common shocks. If a once-in-a-century financial crisis, a once-in-a-century pandemic and a war in Europe are individually unlikely to occur in any twenty-year period, how much lower are the chances of having all three?



Sources: ONS, World Bank Development Indicators, **Borin and Mancini (2019)**  $\checkmark$  as reported in **World Development Report (2020)**  $\checkmark$  and **Antras (2020)**  $\checkmark$ , and Bank calculations. World trade is defined as the sum of world exports and imports of goods and services as a share of world GDP in value terms, divided by two as a country's import is another country's export.

Nor do they mean that domestic policies no longer matter. Fiscal and monetary policy will still influence economic activity for a while; in the longer run a country's economic welfare will still depend on its supply-side policies; with a floating exchange rate a small open economy can successfully pursue its own inflation objective over the medium term, however buffeted it may be in the meantime by gusts from abroad. For that reason I'm not sure it matters fundamentally for monetary policy that a particular economic disturbance is foreign as opposed to home-grown. (Its nature – whether it's more a supply- or a demand-led shock – certainly does, as we'll see shortly.)

At the very least, however, the events of the past few years clearly suggest one should care about events abroad as much as those at home. One should also guard against the tendency to attribute every short-term move in UK economic data – even those over a period of a couple of years – to some domestic event.

The recent inflation is a case in point. It's hard to over-state the scale of the boost to import prices from the pandemic and then the war. That's particularly the case when you compare it with the longer-term, downward trend. Because the UK economy is more concentrated in services than its trading partners, and because productivity tends to grow faster in goods, depressing their relative price, import costs have tended to decline over time. Relative to that of the UK's own output, the average price of its imports fell by  $2\frac{1}{2}$ % a year between 1995 and 2007, adding significantly to the growth of real incomes over that period. By contrast, in the two years between late 2020 and the autumn of 2022, that relative price rose by over 20% (Chart 4). This cost the country as a whole over 6% of its national income.



Sources: ONS and Bank calculations. Dotted line is the MPC's May 2024 projection.

Some of that was absorbed by higher government borrowing (used in part to fund subsidies for household energy bills). The rest inevitably lowered the consumption value of profits and wages in the private sector. And it's this hit to real incomes, and the attempt to offset it by bidding up domestic prices and pay, that can lead to the more persistent "second-round" effects on overall inflation.

Recently, based partly on the breakdown of the CPI – in particular the steep rise and fall in its goods component – economists at the Bank raised their estimate of the direct contribution of tradeable prices to movements in inflation over the past three years. The resulting broad breakdown is shown in Chart 5.



Sources: ONS, Bank of England, Bloomberg and Bank calculations. The contributions of energy prices, tradeable prices and slack to the deviation of CPI inflation from target are Bank staff estimates consistent with the MPC's May 2024 inflation forecast. Slack is based on the MPC's estimates of the output gap.

One consequence of this is that we now think there's less of this effect to come through over the future. Another is quite how much of the inflation in 2021-23 these direct effects seem to account for[3]. Clearly, the tighter labour market also mattered (its estimated contribution is represented by the purple "slack" bars). But the vast majority of the inflation seems to reflect the direct impact first of higher core tradeable goods prices following the pandemic, then those of energy and food after Russia's invasion of Ukraine. In particular, it's really only in the past year, as those direct effects have fallen back, that any material "second-round effects" on domestic inflation have begun to emerge. That, at least, seems a reasonable interpretation of the gold, residual bars in Chart 5. Note that, consistent with this view, those gold bars broadly coincide with the appearance of similar residuals in standard, empirical models of wage growth (Charts 6 and 7).



Sources: Barclays, ONS, YouGov/Citigroup and Bank calculations. Wage equation based on <u>Yellen (2017)</u>  $\checkmark$  . Chart shows a Bank staff estimate of 'underlying' private sector regular pay growth that removes pandemic-related compositional effects. Short-term inflation expectations are based on the Barclays Basix Index and the YouGov/Citigroup one-year-ahead measure of household inflation expectations and projected forward based on a Bayesian VAR estimation. Slack is based on the MPC's estimates informed by the vacancies to unemployment ratio. Productivity growth is based on long-run market sector productivity growth per head.

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Chart 7: Excess price and wage growth may reflect second-round effects of

The residuals in this chart are the gold bars from Chart 5 and Chart 6.

Thankfully, that original inflationary impulse has faded. Tradeable goods prices have stabilised and in some cases fallen back quite a bit. (Indeed, the estimates in Chart 5 suggest that their direct contribution to annual CPI inflation prices is unusually negative right now, by enough to bring headline inflation back to around its 2% target in the current quarter. This effect too will fade, which is why we think inflation is likely to rise again in the second half of the year: the MPC's central forecast has annual CPI inflation at 21/2% in the fourth guarter of this year.) Tighter monetary policy has also contributed to the decline in inflation, both by reducing excess demand (those purple bars again) and by limiting what might otherwise have been much larger second-round effects.

Exactly how long those effects might last, for given policy, is a central question for the Committee and one I'll return to later.

#### The consequences of variable costs and supply

If falling import prices in the years leading up to the financial crisis contributed to the "NICEness" of that decade, the big jumps in 2021 and 2022 were clearly much nastier. Not only did they push up inflation but, by depressing real incomes, they also threatened to reduce domestic output and employment.

So if (somewhat crudely) one divides economic disturbances into demand-like shocks - things that push output and inflation in the same direction (Chart 8a) - and those that affect supply or

costs, tending to push them in opposite directions (Chart 8b) – the pandemic and the war would appear to fall into the latter category.



It's tempting to view Chart 1, and the finding that from the early 1990s the correlation between inflation and economic growth seemed to switch from positive to negative – as evidence that these supply shocks became more dominant a long time ago.

I'm not sure that's right. One has to bear in mind that these relationships are affected by the way monetary policy behaves. In a flexible inflation-targeting regime – one where the primary objective is to stabilise inflation but in which there's a secondary goal to stabilise output – it will always make sense, whatever the relative importance of the two, for policy to offset demand shocks, or at least do its best to attenuate them. If spending grows too rapidly, tighter monetary policy will help meet both objectives (and vice-versa when it's too weak). Policy takes time to work so it's not always possible fully to offset swings in demand. But if, in the data, one sees a protracted period of (say) below-target inflation and relatively high unemployment, that would clearly indicate that monetary policy had been too tight. Conversely, if policy does its job, demand shocks would be better controlled and what would be left in the data are the supply-type disturbances that tend to push output and inflation in opposite directions[4].

Take, as an example, the financial crisis: learning from the disaster of the 1930s, monetary authorities the world over eased policy rapidly and aggressively in late 2008 and through 2009. There were many other differences between the two episodes but this response must have helped

to reduce the chances of a long period of insufficient demand and a repeat of the Great Depression. What the UK was then left with, over the following three years, was a period of abovetarget inflation but also relatively high unemployment. While one would hardly describe that as a desirable outcome, living with such a trade-off may well have been the best, under the circumstances, that monetary policy could be expected to achieve. So, to my mind, Chart 1 doesn't necessarily tell you, on its own, that these disturbances to supply and costs have become more frequent or more significant over the past thirty years: it's better read as a reflection of the stability of the UK's monetary regime and its comparative success in ironing out pure demand shocks.

All that said, the past ten years or so do seem exceptional in this respect. To varying degrees, monetary policy seems often to have been confronted with trade-offs of this sort. If the pandemic and the war qualify as such, the sharp (and inflationary) depreciations in the exchange rate in 2009 and again in 2016, even as investment and aggregate output growth weakened, involved similar trade-offs. And all these occurred against the backdrop of a weaker and less predictable trend rate of productivity growth.

None of this means we will inevitably face the same over the next decade or so. Let us hope not. But one can understand why, in his recent **review**, Ben Bernanke urges the Bank to "pay greater attention to supply-side elements and their role in the determination of inflation and growth". Within this broad category he lists such things as "changes in productivity, labour supply, the efficiency of job-worker matching, supply-chain disruptions and trade policy."

However, we should not pretend that this is straightforward. For one thing it isn't unambiguously true, even in theory, that weaker supply is inflationary. It depends (amongst other things) on people's beliefs about the future. Suppose the economy undergoes a protracted period of weaker productivity growth. It's all very well to draw a simple, static heuristic like Chart 8b but, once you're in a dynamic setting, and if people understand the resultant decline in income growth is likely to last for some time, then demand too would fall. It's even conceivable it would contract by more than the initial decline in supply. Similarly, the strength of second-round effects on inflation, following a significant change in import prices, may depend on the prevailing characteristics of the labour market. After the dramatic rise in energy costs in the 1970s, widespread wage indexation may have contributed to the persistence of inflation (though I'll argue shortly that it certainly wasn't the only, or even the most important, cause). Conversely, the more flexible labour market of the 1990s and 2000s may help to explain why the big exchange-rate depreciations in 1992, 2008 and 2016 seemed to have had little impact on domestic inflation.

Second, my own impression from the past few years is that these episodes are a bit like Tolstoy's unhappy families – if they're not unique, they've each of them had their own particular characteristics. No two of the things in Bernanke's list, under the general heading of "supply-side elements", would have identical effects. The same goes for the particular shocks we've experienced over the past few years. And that makes their consequences harder to discern,

harder still to forecast. (In this analogy, I suppose the more plain-vanilla demand disturbances would play the part of the more uniform, happy families.)

None of that means we shouldn't do everything in our power to increase our understanding of these things. Bernanke's points – indeed all his recommendations – are extremely well made and I fully expect the Bank (and indeed other central banks) to respond positively to them.

Equally, I suspect that, were these supply-side disturbances to continue, on anything like the scale we've seen over the past decade, we would have to live with a higher degree of uncertainty about the future; and that, in turn, has various consequences for the behaviour of monetary policy and economic forecasts.

First, as regards policy, we'd be unlikely to see a return to the halcyon days of the NICE decade, during which interest rates seemed to respond exclusively to economic growth. We should instead expect a continuation of the more recent pattern, in which policy has had to respond to a variety of more lagging indicators, including slack in the labour market and those relating to domestic inflation. (I explained in a talk last year why this an appropriate response to uncertainty about the supply side – see **Broadbent**, **2023**.)

Second, hand-in-hand with greater volatility and uncertainty go larger forecast misses. These are uncomfortable but if the world is genuinely a noisier place, they're also inevitable. I was struck, in this respect, by a graph the Governor used in his opening remarks for the latest Monetary Policy Report press conference (reproduced here as Chart 9). It shows how inflation has turned out against various vintages of short-term MPC forecasts – in particular, how wide of the mark those projections were in 2022 and, equally, how small the misses have been in recent months. It's unlikely this is because the MPC has suddenly become brilliant at forecasting (or that it was useless before[5]). It's simply because there have been fewer large shocks over the past year.



Sources: ONS and Bank calculations.

Third, it seems to me all the more important, were this period of unstable and unpredictable costs and supply to persist, to retain the current institutional set-up, in which an operationally independent monetary authority seeks to meet a fixed inflation objective. If the response to a conventional demand shock is analytically more straightforward, it's also easier from a political perspective. People mind less about higher interest rates if, at the same time, the real economy is also strong. It's when the opposite is true – when inflationary pressure is rising even in an environment of weaker economic growth – that policy is really tested.

I mentioned earlier that, in the face of similarly large increases in energy prices in the mid-1970s, one thing that might have made the job of inflation control that much harder was the widespread indexation of pay to prices. But it didn't make it impossible. At the time, wage indexation was also common elsewhere in Europe, including in Germany, which had also seen a similar rise in wholesale energy costs. Yet inflation in the UK remained extremely high, and a long way above that in Germany, even after that original shock had faded (Chart 10). By contrast the UK's experience in the past three years, faced again with a very substantial rise in import costs, has proved much less enduring and much closer to that elsewhere in Europe. What counts, it seems to me – what today's arrangements in the UK share with those in Germany in the 1970s – is that monetary policy is now set by an independent authority in pursuit of a fixed nominal objective.

None of that is to say that the MPC shouldn't be held accountable, that its actions shouldn't be examined and questioned all the time or that its models and communication cannot be improved.

That accountability, to parliament and the wider public, is itself a critical part of the current framework. Equally – and this is a point not about the expertise of individuals but about institutions and the incentives they create – I've little doubt that, had we gone through the pandemic and the war with the monetary regime of the 1970s, in which policy was governed as much by the political as the economic cycle, things would have been a great deal worse.



Sources: ONS, LSEG Refinitiv and Bank calculations.

#### Conclusion

The direct effect on inflation of the pandemic and the war have now faded. Having accounted for the significant majority of the rise in inflation in 2021 and 2022, the passthrough of the ups and downs in tradeable prices have since accounted for most of its decline as well. What we're now left with are the more persistent, second-round effects of that earlier surge on domestic inflation.

How long these persist is unclear. If the process were entirely symmetric then you might expect these effects to unwind relatively quickly, within the next year or so. Chart 4 says the original hit to real national income has now been reversed. (The counterpart for working households has been pretty strong real wage growth – Chart 11.) Chart 7 suggests that the second-round effects of the hit took around eighteen months to get going and that they might have peaked some time last autumn. And monetary policy is more restrictive now than in 2022 and the first half of last year.



Sources: ONS and Bank calculations. Private sector regular pay deflated by the consumption deflator. Chart shows a Bank staff estimate of 'underlying' pay that removes pandemic-related compositional effects. MPC forecast for 2024.

But the Committee has judged for some time that the process is likely to be asymmetric – that, in the words used in recent Monetary Policy Reports, "second-round effects in domestic prices and wages will take longer to unwind than they did to emerge". Judging by what the Bank's Agents are telling us about wage growth in 2024 – their forecast would entail almost no convergence to our wage equations through the rest of this year (or therefore any diminution in the aqua line in Chart 7) – that seems right.

On the other hand, the Agents are also reporting that firms feel less able than they did last year to pass through in full these higher wage costs. And if the origin of these second-round effects is the squeeze in real incomes in 2022, their recovery this year may matter. The more that's regained, the less ground, relative to some notional "norm", there is to make up. This is why I was content to reduce the scale of these persistence effects in the third year of the May MPC forecast.

There is a range of views across the Committee on this point. In view of the rarity of events like this over the past, and the associated uncertainty about the future, that's entirely understandable. Whatever the priors of its individual members the MPC will continue to learn from the incoming data and, if things continue to evolve with its forecasts – forecasts that suggest policy will have to become less restrictive at some point – then it's possible Bank Rate could be cut some time over the summer.

Finally, I want to thank all my colleagues at the Bank, not just my fellow MPC members but

everyone else as well, for all their hard work. The Bank is fortunate to have such professional and dedicated staff and it's been a great privilege to work with them. I'll miss the place.

Thank you.

I've received helpful comments from colleagues at the Bank of England. I'd like to thank Fabrizio Cadamagnani, Doug Rendle and Ryland Thomas for their help in preparing the speech. The views expressed are my own and do not necessarily reflect those of the Bank of England.

- 1. In the short term global shocks can lead to common movements in inflation. Note, however, that, over the medium term, and as long as there's a floating exchanges rate, a country can pursue its own inflation objective.
- It's possible, in principle, that greater openness might itself lead to greater volatility in output by encouraging specialisation. If there are sector-specific shocks to demand or productivity, then more specialisation would result in greater volatility at the country level as well (<u>Newbery and Stiglitz, 1984</u> <sup>C</sup>). But, as I highlighted in a talk last summer at Jackson Hole (<u>Broadbent, 2023</u>), the evidence suggests this is dominated by more stabilising effects, including the ability to insure against country-level disturbances. See, in particular, <u>Caselli et al. (2020</u> <sup>C</sup>.
- 3. This is also what the IMF found in its <u>April 2024 World Economic Outlook</u> <sup>1</sup>/<sub>2</sub> see Chapter 1.
- 4. See McLeay and Tenreyro (2020) C, Broadbent (2020).
- 5. As Ben Bernanke pointed out, the MPC's forecast errors during that period were no larger than others', whether those of central banks in other countries or other UK forecasters. A working paper by Bank economists, due to be published in the coming weeks, reaches a similar conclusion. Some years ago (Broadbent, 2013 ), I pointed out that, when there's any degree of noise in a series it can take a long time years or even decades before one could say clearly (to an acceptable degree of statistical significance) that one forecaster is better than another.

#### **Ben Broadbent**

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