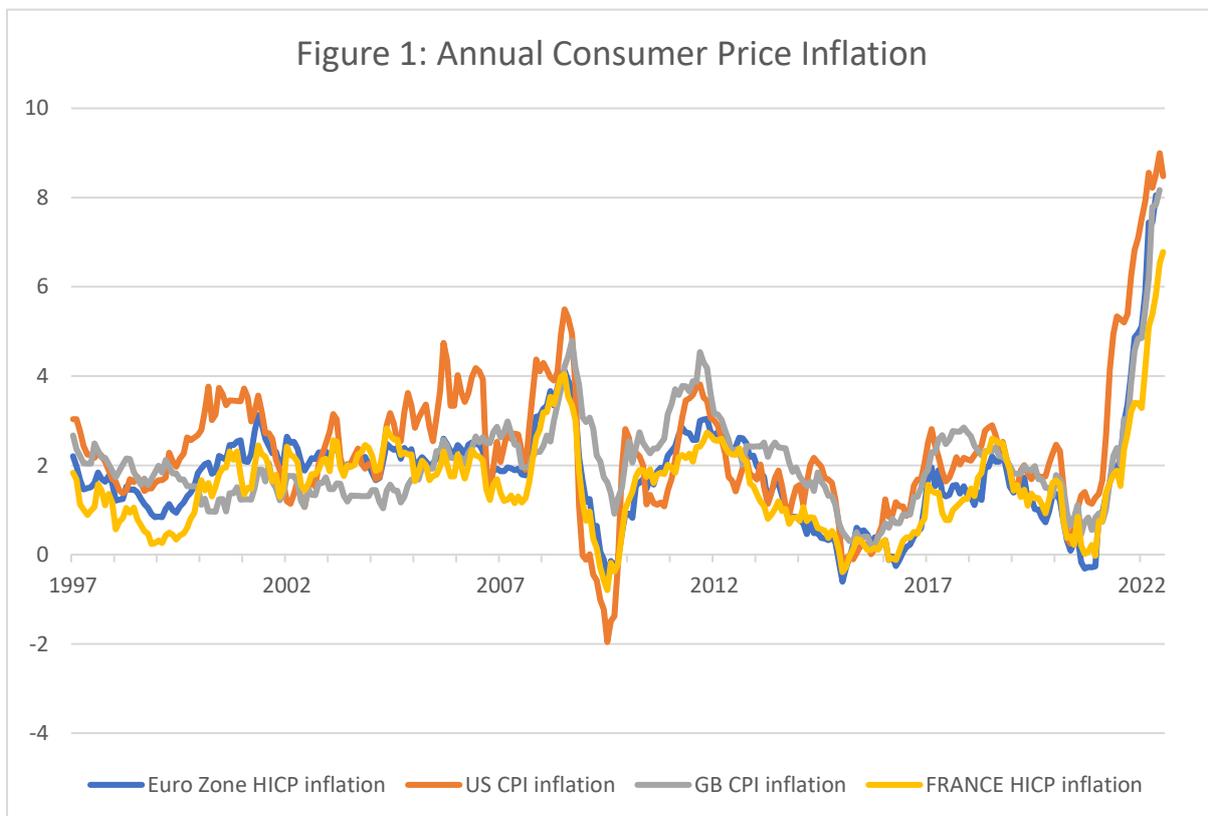


## #ECONOMICSFOREVERYBODY

### The return of inflation Tobias Broer

Whenever we visit the supermarket, the gas station, or our favorite online retailer these days, we notice it: prices have risen substantially over the last year. Of course, this impression is dominated by products we shop for regularly, such as food and gasoline. But a look at the data reveals that, indeed, 'inflation' – defined as the percentage increase in the price of a typical basket of consumer goods – is back. In the Euro Zone consumer prices have increased by more than 8 percent over the last year, much above the European Central Bank's inflation target of two percent, and, in many European countries, the highest annual increase for 40 years. This surge took most economists, as well as the European Central Bank that is in charge of stabilizing inflation through its monetary policy, by surprise. In fact, consumer prices had been remarkably stable for a long time. But since May 2021 they have now risen by more than over the preceding 8 years combined. And this is not just a European phenomenon: inflation has surged to even higher rates in the US, or the UK, for example.



HICP: Harmonised Index of Consumer Prices

The unexpected surge in inflation illustrated in Figure 1 above makes us poorer (in terms of the consumption our wages and salaries can pay for), and wonder if inflation will keep rising. In particular, it raises three questions: Where does this unexpected increase in inflation come from? How does it affect households and firms? And what can, and should, policymakers do?

### What caused this unexpected increase in inflation?

One way of answering this question is simply by identifying the products that account for the bulk of the recent increase in consumer prices. Remember that the consumer-price inflation numbers published by the ECB or national statistical agencies are just a weighted average of price changes for individual product categories (where the weights correspond to the fraction of their budget that consumers on average spend on them).

#### The war in Ukraine has increased energy and food prices

This accounting approach reveals that some prices have increased much more than others. Prices for many products, in particular those that we perhaps pay less attention to such as rents or communication services, have not increased more than usual. But energy prices have increased by more than 40 percent since May 2021 – mostly driven by the rise in oil and gas prices following the Russian invasion of Ukraine. Food prices have also risen strongly, by almost 8 percent, partly because the war has disrupted the supply of some agricultural commodities of which Ukraine is a major producer. And the two categories cover a large part of household expenditure: together they represent – in roughly equal parts - about a third of the overall consumer price index.

#### The pandemic has changed supply and demand, in a complicated way

But we have also seen strong price increases for some goods and services that are unaffected by the war in Ukraine – and the reasons behind these are much less understood. Generally, we would think that increases in demand, or reductions in supply, or both are the reason for higher prices. The timing of the inflation surge, from mid-2021 onwards, suggests that the knock-on effects of the COVID-19 pandemic played a role. And indeed, the pandemic changed supply and demand patterns around the globe in a complicated way.

On the demand side, spending on services that require personal contact, such as meals in restaurants, plummeted when the pandemic hit, and has still not fully recovered in many places. Demand for durable goods, such as cars or television sets, fell strongly at the beginning of the pandemic as uncertain consumers postponed large purchases. It then rebounded strongly when they started spending their unintended savings, and extra cash from fiscal transfers. This put the global supply for consumer durables and their necessary inputs, such as transport services or semiconductors, under severe strain. Duly, prices of imported non-food consumer goods have risen by more than 10 percent over the past year in the Euro Zone.

But the pandemic has also changed the supply side of our economies. Labor supply has shifted as individuals left their jobs

during the pandemic and have not fully returned, in particular to in-person services. In addition, absences of infected workers and lockdowns in China keep disrupting supply.

A final effect of the pandemic comes from policies aimed at cushioning its impact: repeated fiscal stimulus packages kept workers in jobs but also left them with plenty of cash to spend once the worst was over. This is particularly true in the US.

... so the outlook for inflation remains uncertain

The direct effect of high energy and food prices will eventually drop out of the year-on-year inflation of consumer prices (or even reduce it if these prices fall back once the war in Ukraine is over). But post-Covid changes in supply and demand may prove to be more permanent, as workers find their previous jobs less attractive or have discovered a taste for leisure, and make it much more difficult to understand and predict future changes in prices. And because we have not seen such rapid price increases in 40 years there is little guidance in the data to how workers and firms may react to the change in their purchasing power and costs. Wages, in particular, have recently started to rise more quickly in the Eurozone. Because they are the largest cost category for firms, this may set in motion a second round of price increases. Whether this happens or not depends partly on how much inflation workers expect in the future, and on their willingness to accept declines in their purchasing power. Inflation expectations have risen in the recent past. But trade union membership has been on a downward trend for some time, which may imply a reduced power to make up for higher inflation through wage increases.

Taken together, this creates substantial uncertainty around the inflation outlook for the future.

How does increasing inflation affect households and firms? And is there an 'optimal' level of inflation?

A sudden rise in inflation like the one we have seen means that many households whose wages have not changed have less money left at the end of the month. And for the poor who save little it implies a hurtful fall in consumption. Similarly, for firms who see their costs increase but have fixed the prices for their products in long-term contracts, higher inflation means lower profits. More generally, surprise inflation redistributes income: in the short run, from those who cannot change their prices or wages to those who can. And because it leaves prices permanently higher, an inflation surprise leaves the consumption-equivalent value of savings and debt reduced, thus redistributing income from savers to borrowers. One side of this is that governments, whose tax income rises with prices, find it easier to pay back their debt, while the holders of government bonds lose out. Importantly, such redistribution through surprise inflation is typically not fair in any way. And it makes workers and savers suspicious that their purchasing power might again be eroded in the future, and may thus contribute, for example, to lower savings or higher interest rates.

Inflation surprises are thus bad for many. But is higher inflation in general a bad thing? And does this mean we should try to keep inflation as low as possible? The answer to this question is much less clear. When inflation is correctly anticipated by everybody, wage and product contracts

can incorporate this increase, so there are no bad surprises. Higher inflation still has costs though: for example, for our day-to-day purchases, we often use cash or checking accounts that pay no interest. Higher inflation, even if it anticipated, decreases their value more quickly, and thus makes households hold less cash than they otherwise would. In fact, economists have argued that to make most of the benefits of 'money' (or money-like bank deposits that we use through debit card payments), inflation should actually be negative (there should be 'deflation') to reduce the cost of holding them relative to other safe investments that pay interest.

But inflation also has benefits. One arises because workers are often reluctant to accept a reduction in their Euro-wages. Keeping wages constant in sectors that experience a downturn, while those in others rise at the rate of inflation or above, can help necessary adjustments of relative wages in the economy. A second benefit arises from the fact that interest rates on bank deposits in an economy typically rise with the average rate of inflation (because economic agents care about the 'real' or consumption-equivalent return on their savings). Moreover, interest rates on bank deposits cannot fall much below zero (as people might otherwise transform their deposits into cash, which always has a zero return). Because central banks use nominal interest rates to stimulate the economy, very-low inflation with low interest rates constrains the ability of central banks to do their job. This has been a problem in recent years, when the interest rates set by central banks were close to zero (see also box 2). Higher average inflation thus makes it easier for central banks to fight against recessions. In addition, when inflation is negative (i.e. when there is deflation),

households who expect lower prices for products in the future may postpone consumption, which reduces aggregate demand.

So, what is the optimal average inflation rate that results from these costs and benefits? The answer of many economists is: above zero, but low enough such that it is not a relevant consideration for households and firms in their day-to-day decisions. The answer of many central banks is: two percent. In fact this is the inflation target of the ECB as well as the Federal Reserve in the US. But the experience following the post-2007 financial crisis, when central banks were curtailed in their ability to stimulate the economy by the effective lower bound on their interest rates has led many economists to call for an increase in inflation targets, to, for example, four percent.

### What should policymakers do?

While the precise 'optimal' level of long-run inflation is a matter of debate, economists agree that inflation should not deviate too much from its target level, to coordinate inflation expectations in an economy. The recent surge in inflation is thus a challenge for policymakers, in particular central banks. For a while, their consensus view was that the surge is a temporary phenomenon caused by volatile food and energy prices that will subside by itself. But now that wages and household inflation expectations have risen substantially, central banks have announced a tightening of monetary policy in the form of higher interest rates and reduced purchases of government bonds and other assets. The stakes are high: once households and firms expect inflation to be

high, they increase their wage demands and prices accordingly. Once inflation becomes entrenched in this way, squeezing it out of the system with tighter monetary policy may require a recession.

The challenge for policymakers today is to avoid this and engineer a 'soft landing', where inflation falls back to its target level without a strong contraction in output.

**Box 1 How central banks conduct monetary policy to control inflation**

The European Central Bank (ECB) has the monopoly to issue 'money' in Euro, that is to print Euro-notes and bring them into circulation. It does so either by buying other 'assets', such as government bonds, or by crediting the accounts commercial banks hold at the ECB with Euros (in exchange of 'collateral' that it can keep should the loan not be paid back). Most of the time, banks do not actually transform the Euros they receive in this way into banknotes – rather, they exchange them with other banks via a computerized system at the ECB (although the Euros we withdraw from cash machines ultimately come from this exchange).

Since the 1990s, most central banks have exercised their 'monetary policy' to control inflation mainly by setting the interest rate for their short-term loans to banks (although in recent years direct purchases of bonds and other assets have regained importance as interest rates were close to zero). When inflation is high and the economy runs hot, the central bank raises the interest rate, which banks pass on to their customers, who see the costs of their loans rise. As consumers save more and firms invest less, employment and sales contract, and wages and prices eventually slow – inflation falls. Conversely, central banks lower interest rates when they want to stimulate the economy.

For a long time, Central Banks performed this steering job as told by politicians (and they still do in some countries). But politicians often favor expanding employment over lowering inflation, which works for some time but not forever as workers and firms factor in the overexpansionary policy in their inflation expectations, increasing wage and price growth. The result is a stop-and-go movement in the economy (as in the UK of the 1970s and 80s), or 'stagflation' (low growth and high inflation), a phenomenon common in western countries in the late 1970s and early 1980s. To avoid this, politicians in most developed economies have given central banks some guiding principles (including often an 'inflation target') but made them independent in their day-to-day management of monetary policy. In fact, the ECB is created by an international treaty that is impossible to change for individual governments. This makes it one of the most independent central banks in the world. In countries where Central Banks receive orders from the government inflation is often higher and more volatile. Examples are Turkey (where the Central Bank has been ordered to keep interest rates low in the face of rising inflation, which now stands at about 80 percent per year), or Zimbabwe (where the government pays its expenditure by printing money and inflation is more than a hundred percent).

**Box 2 The bumpy road to stability: inflation after the second world war**

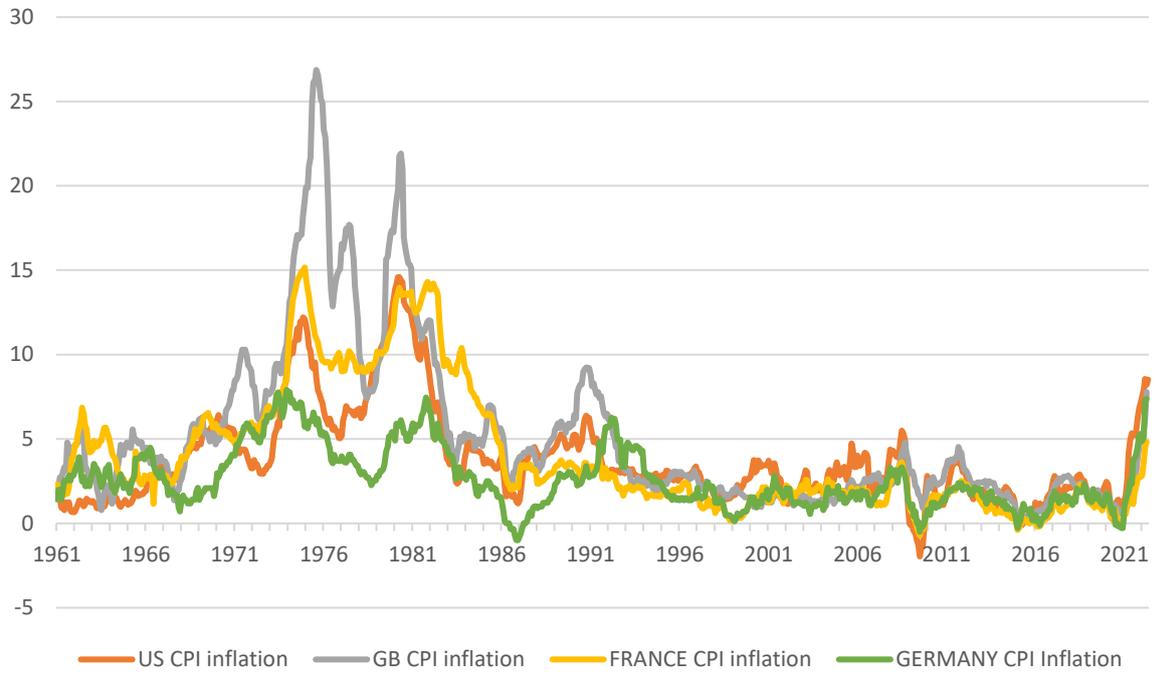
Figure 2 shows a longer time series of inflation in 4 developed economies. When compared to the 1970s, the current surge in inflation is not exceptional. Does this mean it should worry us less? No. The low and stable inflation since the late 1990s is regarded as a major achievement following the much more chaotic 1970s and 1980s. In fact the striking feature of Figure 2 is the stability of inflation around a low level since the 1990s.

To understand this, one has to know that during the 1950s and 60s monetary policy in most countries was constrained by a system of fixed exchange rates of their currencies with the US dollar. In this system (named after the skiing resort of 'Bretton Woods' in New Hampshire where it was agreed upon in 1944) central banks had to stand ready to buy or sell their currency at a negotiated Dollar price, limiting their ability to use their monetary policy to stimulate or cool their economies. When economic conditions diverged in the 1970s, the one-size-fits-all monetary policy that was, essentially, set by the US was not appropriate anymore and the system fell apart. Turbulent times followed, where monetary policy was often used by politicians to stimulate their economies (with the exception of Germany, where the Bundesbank enjoyed more independence), and volatile oil prices pushed inflation around. In 1979 and 1980, Margaret Thatcher and Ronald Reagan, two conservative politicians, came to power in the US and the UK, respectively. Both supported a restrictive monetary policy that quickly reduced inflation, at the cost of strong recessions in both countries. Similarly, in France President François Mitterrand had his 'turn to rigor' (tournant de la rigueur) in 1983, to reign in the public deficit and inflation.

This turn toward stability was accompanied in Europe by plans for economic and monetary cooperation, in particular within the 'European Monetary System' (EMS) of fixed exchange rates. Italy and the UK had to withdraw in 1992 from the EMS after higher inflation had eroded the competitiveness of their products on international markets, and devalued their currencies after speculative attacks on their exchange rate peg. The UK never joined again. Instead its Bank of England, fully independent in its conduct of monetary policy since 1997, adopted a new policy of direct 'inflation targeting' that successfully stabilized inflation. In continental Europe, the EMS acted as a precursor to the European Monetary Union that created the Euro in 1999. The newly created ECB initially succeeded to keep Euro Zone inflation around its target of two percent. But after the 2007 financial crisis, and the sovereign debt crisis that followed, inflation fell persistently. The ECB reduced its monetary policy interest rate to zero, and embarked on a policy of purchasing government bonds and private assets, so-called 'Quantitative Easing' to stimulate the economy and bring inflation up.

Figure 2: Annual Consumer Price Inflation

Source: Federal Reserve Economic Data



CPI : Consumer price index

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