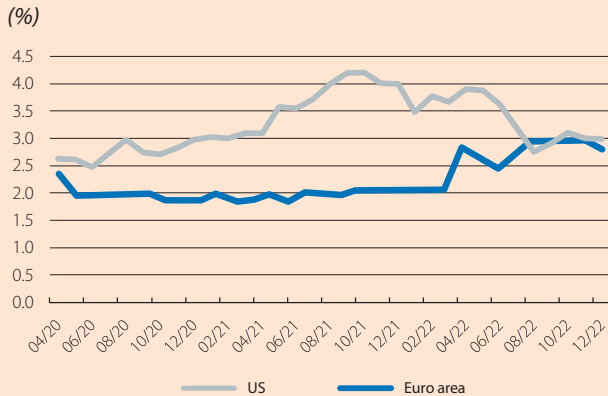


What will happen to inflation in the long term? A global perspective

Beyond the inflation outlook for this year, to complete the narrative it is important to have a structural vision of where inflation will lie in the long term in advanced economies and what determining factors we will have to pay special attention to. In the end, the question is where inflation will lie when the cycle that began with COVID-19, and which has continued with the war in Ukraine, comes to an end and what will happen with inflation targets.

US and euro area: 3-year consumer inflation expectations



Notes: Median of these expectations. Data for the US available up to December 2022 and for the euro area up to November 2022.
Source: CaixaBank Research, based on data from the New York Federal Reserve's Survey of Consumer Expectations and the ECB's Consumer Expectations Survey (CES).

In order for inflation to return to close to 2.0% in the medium term, which is the target rate of most of the central banks, it will be essential to anchor economic agents' expectations at around this level. In other words, they must be prevented from thinking we are entering a world in which inflation will be persistently above the target rate. According to the ECB's analysis, European consumers' inflation expectations for three years into the future have risen from 2.0% to almost 3.0% in just one year (see first chart). This is no small increase and we will have to wait and see if it is consolidated or ends up unwinding.¹ The credibility of the central bank and its policies to avoid second-round effects will be key. With a long-term perspective, which is the focus of this article, factors such as the energy transition, the evolution of globalisation and migratory flows will play a fundamental role in inflation dynamics.

In advanced economies, the impact that the energy transition will have on aggregate prices is uncertain, as there are various opposing forces operating in fossil fuel prices. On the supply side, regulatory uncertainty could reduce the supply of these fuels, which would lead to higher prices. On the other hand, the front-loading of production

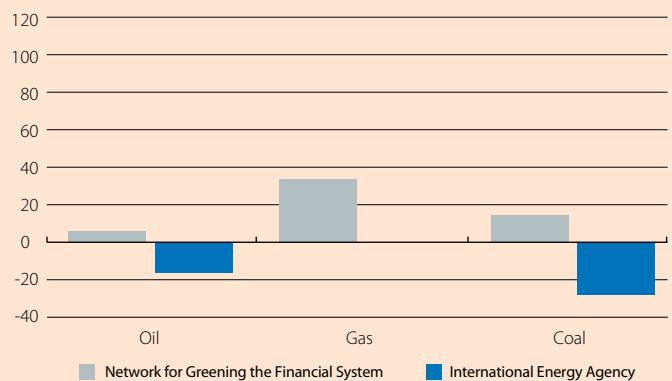
due to the worsening expectations, coupled with the emergence of technological innovations (carbon capture and improvements in carbon storage, etc.), would reduce prices. On the demand side, the factors that would lead to a reduction in fossil fuel prices seem to dominate: preferences for clean energies and increased investment in green energy would reduce the demand for fossil fuels and, consequently, their prices. However, the impact that the introduction of a carbon tax would have is uncertain, as although demand and thus the pre-tax price would be reduced, depending on the tax rate the post-tax price could potentially be higher.²

In any case, the studies conducted to date show that, even if an ambitious energy transition takes place between now and 2030 (see second chart), the increase in the price of fossil fuels would be contained (6% for oil and 30% for gas on a cumulative basis over the period 2020-2030, according to the Network for Greening the Financial System).

However, if an ambitious energy transition aimed at limiting temperature rises to 1.5 degrees above pre-industrial levels were to be successfully carried out, there is broad consensus that the impact ought to be disinflationary. Not surprisingly, in 2022 the marginal cost of producing solar energy already accounted for a quarter of the marginal cost of gas-based power plants in Europe, according to the International Energy Agency. The greater the deployment of renewables, the quicker this price reduction impact will occur and the sooner we will reach the «divine coincidence» – an expression coined by ECB Executive Board member Fabio Panetta to refer to a world with greener and cheaper energy.³ On the other hand, an unambitious energy transition would entail inflationary pressures due to a greater role of fossil fuels (to which we should add the economic costs of the greater recurrence of natural disasters and extreme weather events).

International price of fossil fuels in 2030 in an ambitious energy transition *

Change from 2020 to 2030 (%)



Note: * The temperature increase is limited to 1.5 degrees compared to pre-industrial levels and 0 emissions are achieved in 2050. Calculated on the basis of pre-tax prices in dollars.
Source: Panetta, F. Greener and cheaper: could the transition away from fossil fuels generate a divine coincidence? ECB speech, November 2022.

1. In November, there was already an incipient downward shift.
 2. However, an IMF study based on the gradual introduction of a carbon tax aimed at cutting emissions by 25% by 2030, and with a 20-pp increase in the relative weight of renewables in the energy mix, shows a very moderate increase in inflation in 2030 in the euro area, amounting to 0.2 pps at the most. Indeed, it would be almost negligible if a portion of the proceeds from this tax were dedicated to providing green subsidies to the main productive sectors. See chapter 3 of the autumn 2022 WEO.
 3. See the speech by Fabio Panetta in November 2022, *Greener and cheaper: could the transition away from fossil fuels generate a divine coincidence?*

As for globalisation, it can be said that from a theoretical point of view it has had a disinflationary impact on advanced economies in recent decades. Firstly, since advanced economies have to compete with the lower prices of emerging economies, the increased trade flows reduce both imported and domestic inflation, as domestic producers are forced to improve their efficiency because of the greater competition. Secondly, digitalisation and the greater availability of information have reinforced globalisation by creating a single global market with very low search costs, resulting in lower prices. Thirdly, the fragmentation of production in the major global production chains has led emerging economies with lower costs to specialise in the production of key intermediate goods for the production of consumer goods. The third chart of this article shows that as globalisation progressed in the late 20th century, the impact of domestic wage growth on core inflation in the US decreased.

However, when we analyse the relationship between globalisation and inflation in more detail, and taking into account cause-effect relationships, we see that there is indeed an impact, but it is small.⁴ Globalisation has reduced inflation in goods, but not in services – this is logical, since they are less tradable. For example, the greater availability of information has made it possible to bring down the price of goods (as they are more homogeneous and comparable than services), but not the price of services.⁵ Furthermore, it seems that other forces have been more decisive than globalisation in explaining the fall in inflation in the decades leading up to the conflict in Ukraine: globalisation accelerated between the end of the 20th century and 2010, whereas the sharp drop in global inflation occurred between 1980 and 1997. This was a period in which central banks became independent and set inflation targets, but in which globalisation was not yet at its height (China joined the WTO in 2001, marking its peak).⁶

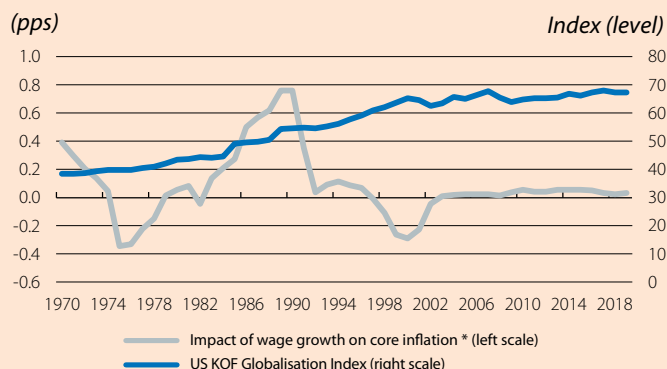
Today, we find ourselves at a fork in the road as we rethink globalisation. The health emergency revealed the importance of not relying on key inputs manufactured in third countries, and this is beginning to lead to a restructuring of global supply chains due to the need to diversify suppliers. In addition to the need for supply security, other factors at play include the reindustrialisation of advanced economies for the green and digital age, the technological competition between the US and China with the establishment of barriers to technological access, and the debate around the implementation of carbon reduction mechanisms in developed economies in order to be on an equal footing with emerging economies which are not taxed for their emissions. Even if this process were to lead to gradual deglobalisation, the inflationary pressures associated with this process should be moderate given that the impact of globalisation on prices has not been very significant in magnitude.

Finally, we cannot end this article without mentioning migratory flows. We are entering a world with renewed protectionist impulses: COVID-19 caused a reduction in migratory flows due to health reasons and it seems that a trend of tougher migratory policies may be consolidated. A prime example of this is the US. Before COVID-19, when the unemployment rate was falling, there used to be greater immigration by workers to fill low-skilled jobs, but this practice has now ceased. In fact, a recent study documents that for these jobs there is a very low degree of substitution between immigrant workers and native workers, so the former are essential in order to fill them.⁷ Thus, if these trends of migratory restrictions are consolidated,⁸ there would be upward wage pressures in these low-skilled occupations.

In short, in a more protectionist world with greater global fragmentation and stricter migration controls, an energy transition that is smart, well-designed and involves powerful investments in clean technologies will be key, as will be a monetary policy that has a clear objective and is well communicated in order to keep inflation at reasonable levels and in line with central bank targets.

Javier Garcia-Arenas

US: globalisation and the impact of wages on inflation



Note: Regression coefficients for core inflation and wage growth delayed one month beginning in 1970 with a rolling window of the previous 10 years. This coefficient is interpreted as the average increase in core inflation over the past 10 years if there is a 1-pp increase in year-on-year wage growth in the previous month. The higher the globalisation index, the higher the level of globalisation.

Source: CaixaBank Research, based on data from Bloomberg and the Swiss Economic Institute.

4. See M.G. Attinasi and M. Balatti (2021). «Globalisation and its implications for inflation in advanced economies». ECB Economic Bulletin Articles, 4.

5. According to the authors of the study mentioned in note 4, more research will be needed to understand the differences in the behaviour of goods and services. The increased transparency of the internet reduces search costs and accentuates competition in the goods market, where products are more comparable and homogeneous, in contrast with the services sector. Globalisation also pushes up the price of services through another channel, namely global value chains: services are regarded as the «glue» and the catalyst for complex supply chains. It is therefore plausible that the services sector's value added and trading margins are positively correlated with a wider use of global value chains.

6. Global inflation fell by 6.9 points between 1981 and 1997 and only by 1.8 points between 1998 and 2010. In contrast, the KOF Globalisation Index increased by 16.5% between 1981 and 1997 and by 19.5% between 1998 and 2010.

7. Comparing similar companies that had access to migrant workers in low-skilled jobs in the US visa draw versus those that did not, it is found that, on average, companies which had to reduce the hiring of migrant workers by 50% experienced an 18% drop in their production and did not hire any additional native workers for those positions. See M.A. Clemens and E.G. Lewis (2022). «The Effect of Low-Skill Immigration Restrictions on US Firms and Workers: Evidence from a Randomized Lottery». NBER Working Paper 30589.

8. This remains to be seen. In fact, climate change could lead to significant migrations due to natural disasters.