

Global economy / Inflation / Central banks

Global inflation and US/EZ monetary policy

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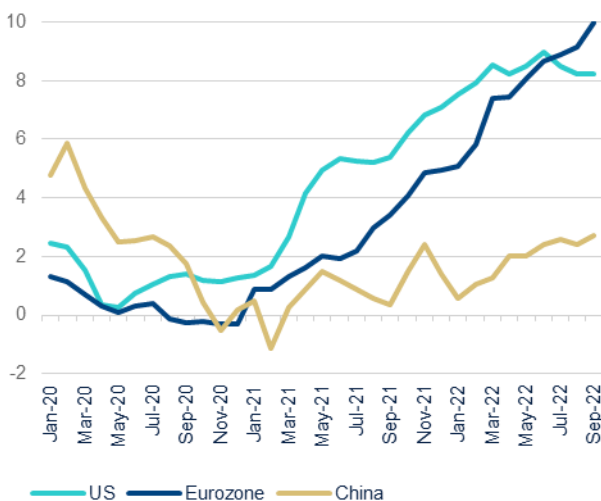
- In both the US and the EZ aggregate consumer price indices are expected to rise by 8% this year alone.
- Initially, prices were driven up by contractionary (supply) pressures: geopolitical shifts, Covid's aftermath, and/or extreme weather events. Eventually, they were also pushed by expansionary (demand) forces, such as a post-Covid consumption spree and policy support.
- The similarities between today's inflation and that in the 1970s are many. Most significantly, policymakers in both periods have been left struggling to sort out how much of the resulting inflation is driven from the initial supply pressures, and how much from the subsequent demand policy responses.
- An essential difference with the 70s is monetary policy, which today counts with very high levels of credibility and autonomy. Also, today's monetary authorities include a risk-management approach that has led them to preemptively counter a resurgence of tail risks.
- The major tail risk today is second-round effects. Monetary authorities are closely following any signs of such vicious dynamics by monitoring: long-run expectations, major price references (such as wages and exchange rates), and price formation mechanics.
- We expect the Fed and the ECB to continue their preemptive fight against any unanchoring of expectations by maintaining a tightening stance and not easing it until at least 2024. Accompanying the tightening cycle, our current baseline scenario includes a relatively shallow recession in both geographies.
- Yet uncertainty is high: the persistence of current supply shocks remains highly uncertain (especially for the EZ). Moreover, both the Fed and the ECB remain uncertain about some of the key economic parameters that condition a properly calibrated response.
- In the longer run, leaving cyclical factors aside, inflation is solely the result of monetary policy; and we are confident of the ECB's and the Fed's strong commitment and ability in keeping average inflation on the 2% target. Yet we do recognize five long-term potential threats to such effective monetary policy: loss of independence, loss of relevance, fiscal dominance, financial dominance and, on the other side of the spectrum, a comeback of deflationary dynamics.

US and EZ Inflation today: Dèjà-Vu?

Inflation continues to make headlines across the West. And not without a reason: in both the US and the Eurozone (EZ) aggregate consumer price indices are expected to rise by 8% this year alone (Graph 1). This jump is much more than simply a *price recovery* after the initial COVID-induced deceleration of 2020: both regions will start 2023 with aggregate prices that are 10pp higher than the expected levels just before the pandemic. As a result, analysts, policymakers, and the overall media are alarmed that both the US and the EZ might be entering a period similar to the 1970's Great Inflation.

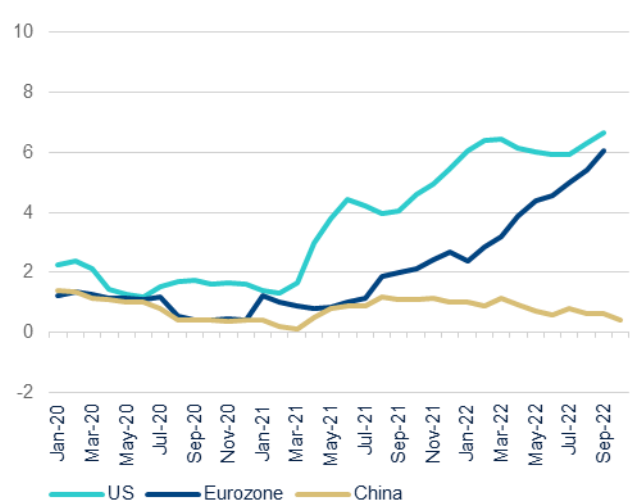
Over the 1970's Great Inflation, US prices rose at an average rate of 7% per year over the decade and reached two-digit levels after the emergence of a clear accelerationist spiral. It was the late but decisive action of the US Federal Reserve that put an end to that escalation in prices, after implementing a strong monetary contraction that led to the painful double-dip US recession of the early 1980s ... and to Latin America's catastrophic debt crisis and ensuing "lost decade". Fifty years later, will the story repeat itself?

Graph 1A. **HEADLINE INFLATION (Y/Y %)**



Source: BBVA Research, Haver Analytics

Graph 1B. **CORE INFLATION (Y/Y %)**



Source: BBVA Research, Haver Analytics

What drives today's inflation?

Several shocks of uncertain persistence are driving today's inflation. For ease of analysis and exposition, it is useful to cluster them in two groups based on how they impact economic activity: "supply" inflation pressures that reduce activity and "demand" inflation pressures that expand and even overheat the economy.

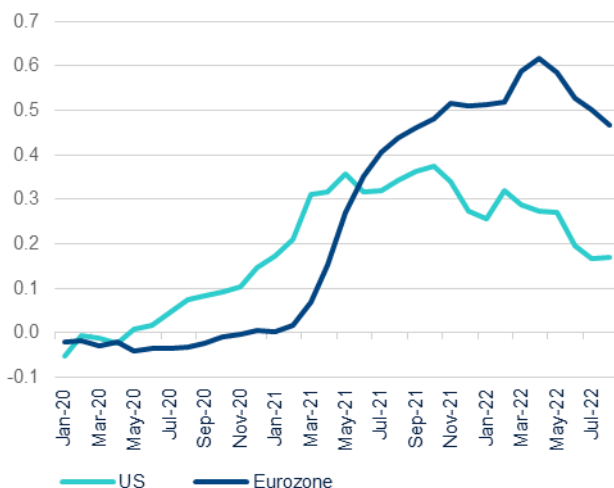
Since early 2021 prices have been driven by five major shocks, three of which have produced supply inflation pressures:

1. **Geopolitical shifts.** There is a rising tide of deglobalization, evidenced by a growing influence of national populist movements and Russia's invasion of Ukraine. It is partly driven by mistrust in traditional institutions, frustration over growing inequalities that many blame on globalization, and by an increasingly shared view that

diversification alone does not and will not grant all the needed resiliency against aggregate global threats. Such tide joins the historical inflationary pressure from the OPEC cartel, which is currently flexing its muscle by agreeing to reduce oil production. As a result, strategic commodities are especially prone to disruptive shifts in supply and thus in their prices (Graph 2B).

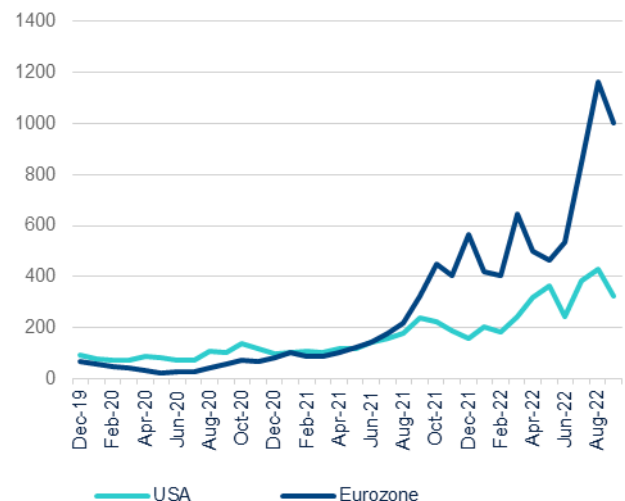
2. **Covid's aftermath.** Persistent bottlenecks (Graph 2A) continue to disrupt previously established global production chains, while the Great Resignation, especially in the US, has reduced the actual labor force.
3. **Extreme weather events.** Droughts and floods have severely hindered supplies of major food commodities. While, with a much lower but ever-increasing significance, the necessary combat against climate change is being internalized by investors as it shall start to impose front-loaded costs in the form of Pigouvian taxes and regulation.

Graph 2A. **SUPPLY BOTTLENECKS INDICATOR**
(INDEX; LAST AVAILABLE DATA: AUG 22)



Principal Component Analysis (PCA) has been the methodology followed in the construction of the supply bottlenecks indicator for United States and the Euro Area, whereby the first principal component has been considered as the corresponding supply bottlenecks indicator Variables included in the indicator: EA19: factors limiting production - Equipment (Percent Balance SA); EA19: Material shortage construction (Percent Balance SA);IFO: Germany: Material shortage in construction (Percent Balance SA);Ea 19: Retail Inventories (Percent Balance SA);Harper Shipping Index;Vessel Size in TEU - Rates in US\$.
Source: BBVA Research, Haver Analytics

Graph 2B. **NATURAL GAS**
(PRICE INDEX Jan 2021 = 100, (Euro/MWh))

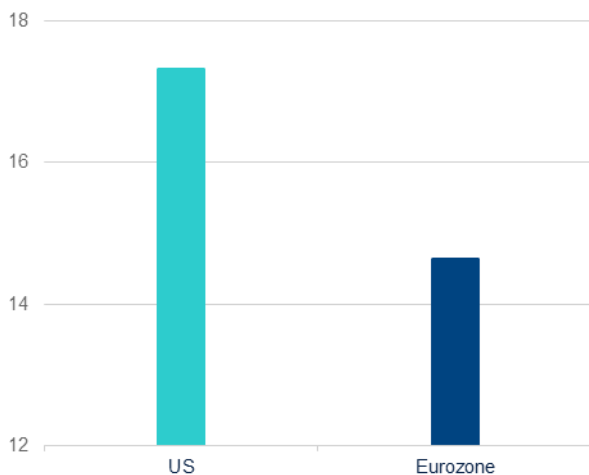


Source: BBVA Research, Haver Analytics

The remaining two shocks have produced demand inflation pressures. Shocks that, to a certain extent, can be thought of as the natural "response" to the aforementioned supply shocks.

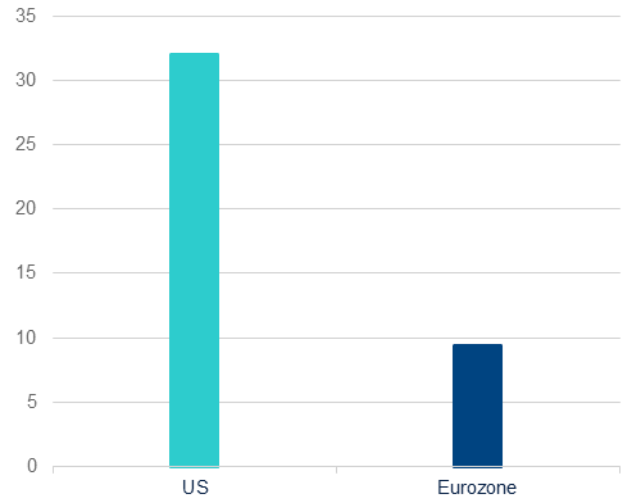
4. **Consumption spree.** The prolonged restraint imposed by COVID gave rise to disruptive shifts in preferences and a consumption spree that has been further facilitated by an ensuing savings overhang.
5. **Historically large policy responses.** Authorities in the EZ, and even more notably in the US, have implemented historically large policy responses to alleviate the economic impact of Covid. These policies have brought on a significant rise in liquidity and government debt (graph 3).

Graph 3A. **GOVERNMENT DEBT Q1 2022**
(PP RISE OF % OF GDP SINCE 2019)



Source: BBVA Research, Haver Analytics

Graph 3B. **MONEY SUPPLY (M2) Q2 2022**
(% DIFFERENCE RELATIVE TO OUT-OF-SAMPLE
PRE-COVID ESTIMATED TREND: 2017-2019)



Source: BBVA Research, Haver Analytics

What are the differences and similarities to the Great Inflation of the 70's?

The similarities between today's inflation dynamics and those of the 1970s Great Inflation are many. In both cases, the first signs of inflation arose from an exorbitant increase in costs related to external events. In the 1970's cost increases were also linked to external shocks with supply inflationary pressures, such as OPEC coordination, extreme weather events and the Yom Kippur war. During both time periods, authorities closely monitored wage increases, knowing that they could give rise to inflationary spirals, and tried to mitigate "transitory" damage with fiscal and monetary aid. And in both cases, policymakers were left trying to unsuccessfully sort out how much of the resulting inflation was driven from the initial supply pressures, and how much from the subsequent demand policy responses.

But there is a big and hopeful difference: Monetary policy has significantly changed since the 1970's. And the change is not in the preferences or "conservativeness" of today's authorities. Contrary to popular belief, the mistake of Arthur Burns, chairman of the Federal Reserve in the early 1970s, was not in being too lax on rising prices, but in sticking to a bad diagnosis. A diagnosis in which successive price increases were repeatedly attributed to some transitory supply-side constraint, triggered by an event such as war, OPEC or droughts. But monetary authorities have learned from that and other mistakes and today's monetary policy is better equipped to react - an ability that rests on three solid pillars:

- 1. Better information:** Today, policymakers have access to better information, not only due to the vast amount of high-frequency digital data that they can collect, but due to a better understanding of the signals that need to be closely tracked. Chief among those are several indicators of inflation expectations among key economic

stakeholders (markets, consumers and analysts). Such data began to be regularly collected only at the end of the 70s, once the central role of expectations within inflationary dynamics was finally acknowledged.

2. **Greater credibility and autonomy:** Monetary authorities now enjoy high credibility - an essential asset in anchoring long-term inflation expectation. They earned their credibility after decades operating with a successful formula based on inflation targeting and the control of short-term interest rates (and over recent years, as rates reached their lower bounds, based on implementing unconventional “whatever it takes” type of policies). Their earned credibility has given them greater autonomy.
3. **Risk management:** Today’s policymaking is based on a strategy of precautionary risk management, the result of a more nuanced and humble acknowledgment of the uncertainty they face. Such strategy contrasts with the 70’s overconfidence on very precise (but not accurate) models/scenarios and a general belief that inflation could be properly fine-tuned at their will.

How do today's monetary authorities react to inflationary threats?

When responding to any inflationary spurt, current monetary policy considers two important aspects: the source of inflation (under a traditional demand/supply shock analysis), and the distribution of risks (under a newer risk-management approach).

The source and persistence of inflation

At a policy level, the distinction between supply and demand shocks is especially relevant to monetary authorities whose toolboxes are limited to “demand” - rather than “supply”- responses against inflation. Consequently, the recipe to curb **demand-driven** inflation is quite straightforward: to forcefully raise rates. With this single stroke they may correct both price pressures and the accompanying overheating of the economy. In the US, this is the reason why in early 2022, after its economy had received especially large fiscal and monetary assistance, the Fed started a forceful tightening aimed at containing rising inflation.

However, under mostly **supply-driven** inflation, monetary authorities are in a crossfire as they cannot combat inflationary and contractionary pressures simultaneously. Fortunately, this dilemma is not new in economic history, and there is now a broad consensus on how to respond to such pressures.

The key to the response lies on the expected persistence of the shock. **If the supply shock is deemed temporary, monetary authorities are compelled to partially tolerate any one-step price hike.** The reason being to not deepen any accompanying economic pain (not so much for humanitarian considerations but, at least today, to avoid any overreaction that can sow the seeds of "Japanization" once those temporary supply pressures have passed). This is the reason why the ECB was until recently acting more dovishly than the Fed: the EZ had been hit strongly by a war in Ukraine - a large supply shock that, at least initially, was deemed temporary.

Yet if the supply shock is deemed long lasting, then the conventional prescription is to intervene immediately, since delaying action would only raise the costs of controlling inflation further down the road. This could partly explain the reason why, as the war in Ukraine drags out, the ECB has shifted its stance to an ever-harsher response. But the major reason behind such a shift comes from the second aspect considered by modern monetary authorities: the emergence of tail risks.

Distribution of risks

As previously stated, today's monetary authorities recognize and manage potential risks (rather than cling to any well-defined "baseline scenario" - a big mistake in the 70's). To that effect, a growing line of research concludes that their response shall depend not only on the average base scenario that policymakers might have, but also on the shape of the overall distribution of risks around it. More precisely, **the current literature advocates for gradualism when uncertainties are well balanced**, with a bell-shaped distribution of risks centered around the expected baseline scenario. But it advocates for **a swift and forceful response when facing mounting tail risks** - risks that have low probability yet are extremely costly.

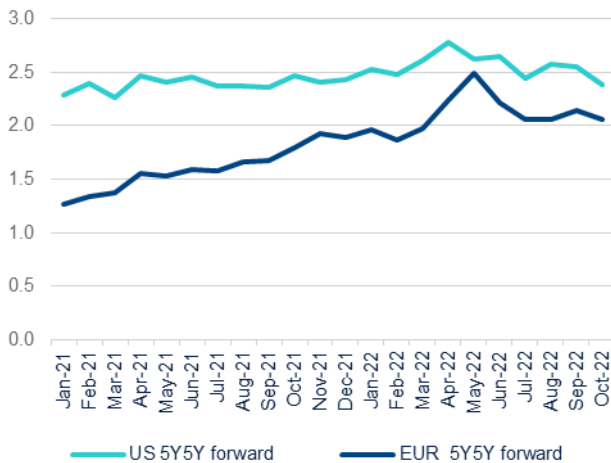
Today, both the Fed and the ECB are increasingly concerned about a specific tail risk inherent to any large inflationary spurt: the build-up of "second-round effects." These are beggar-thy-neighbor dynamics in which economic agents attempt to dodge higher costs by negotiating/imposing ever-higher wages/revenues; a "zero-sum game" that may unhinge long-term inflation expectations while igniting a never-ending vicious inflationary cycle. Given their expectation-based nature, the probability and costs of second-round effects under enduring inflationary pressures tends to rapidly escalate. That is why monetary authorities are strongly compelled to pre-emptively address the risk of second-round effects - as an old Spanish saying goes: "Delay breeds danger."

How do central banks monitor and assess the build-up of second-round effects?

In the past, halting second-round effects has proven extremely costly, with authorities succeeding only after imposing big sacrifices in terms of activity and employment. That is why today's central banks are preemptively scouting for incipient signs of such dynamics, paying special attention to three such signals: expectations, wages, margins, exchange rates, and price formation.

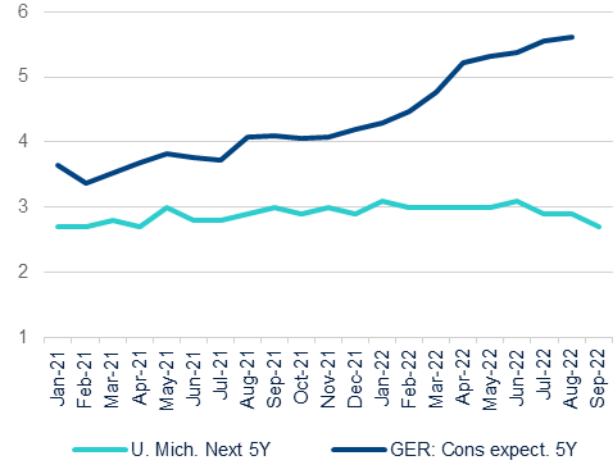
1. **Long-term expectations:** Second-round effects go hand in hand with the unhinging of longer-term inflation expectations; that is why monetary authorities are paying such close attention to price forecasts by markets, consumers and analysts alike. Today's expectations remain well-anchored and relatively close to the Fed's and the ECB explicit target rate of 2% (Graph 4). Yet given how abruptly expectations can change, authorities are also closely monitoring other signals.

Graph 4A. **MARKETS (5Y5Y INFLATION FORWARD)**



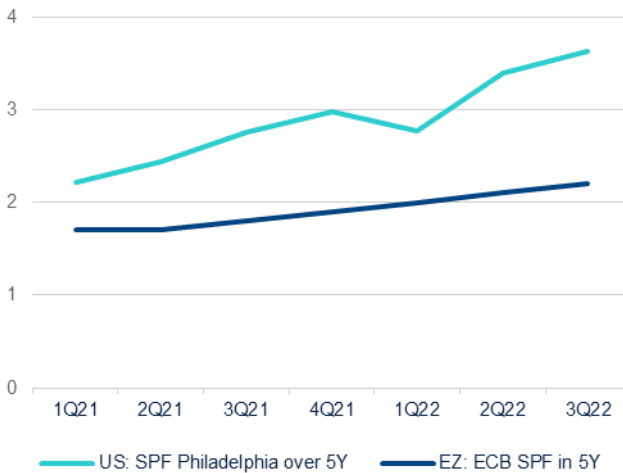
Source: BBVA Research, Reuters

Graph 4B. **CONSUMERS (US OVER 5Y; GER: IN 5Y)**



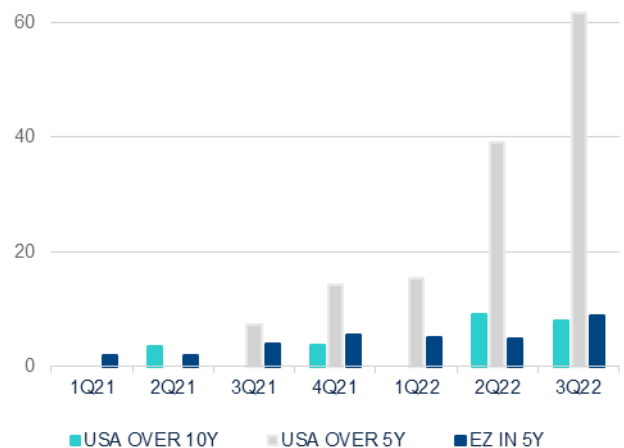
Source: BBVA Research, Haver Analytics

Graph 4C. **ANALYSTS: MEAN (US: OVER 5Y; ECB: IN 5Y)**



Source: BBVA Research, Haver Analytics

Graph 4D. **ANALYSTS: TAIL > 3.5% INFLATION (US OVER 5 AND 10Y; EZ: IN 5Y)**

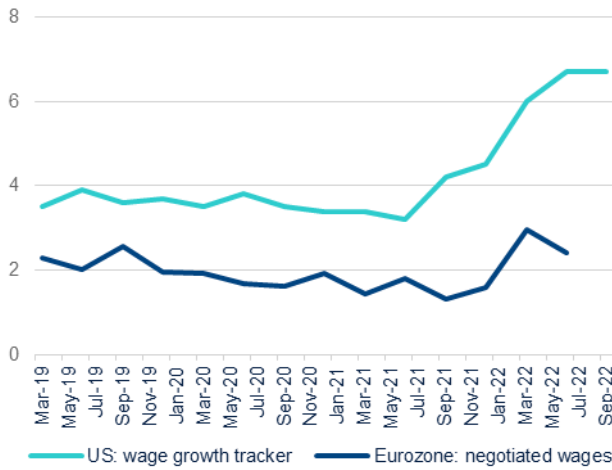


Source: BBVA Research, Haver Analytics

2. Wages and exchange rates: To act preemptively, authorities are also keeping a close look at a historical trigger of second-round effects: an abrupt increase in either wages and/or exchange rates. Those two metrics constitute the quintessential “price anchors” within most modern societies, and as such, any abrupt change may rapidly spread across the economy and, even worse, “coordinate” economic agents around accelerationist pricing strategies.

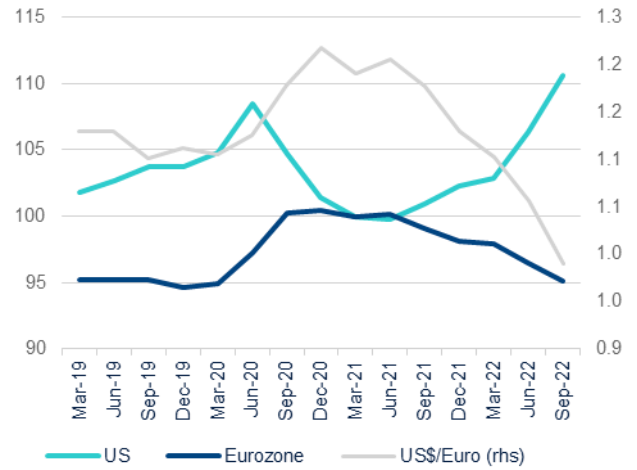
From this perspective, evidence remains worrisome. Within the US, wages have been steadily rising (above the rise in labor productivity), with the risk of further acceleration as wages have yet to correct the loss in worker’s purchasing power over the last two years (Graph 5A). While in the EZ, nominal wages remain well-anchored but a strong depreciation of the euro vis a vis de dollar, fueled by a weakening of its term of trade, is a reality with which the ECB has to contend.

Graph 5A. **WAGES**
(ATLANTA FED AND ECB)



Source: BBVA Research, Haver Analytics

Graph 5B. **NOMINAL EFFECTIVE EXCHANGE RATE**
(PRICE INDEX JAN 2021 = 100, UP IS APPRECIATION)



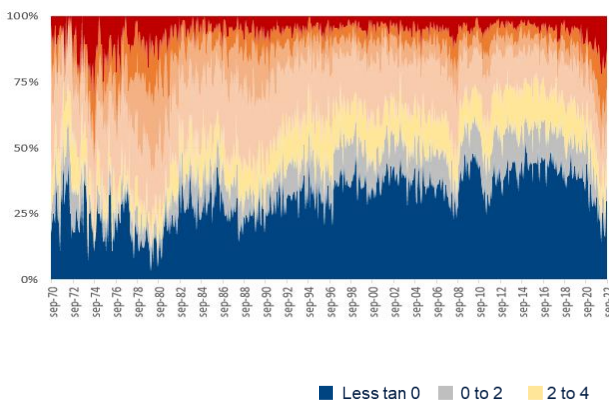
Source: BBVA Research, Haver Analytics

3. **Price formation:** Rather than simply monitoring aggregate price indices, economists and policymakers also increasingly look at whether rises in prices are prevalent across different goods and services. If so, that would indicate that firms' pricing strategies are responding less to idiosyncratic supply/demand shocks and more to aggregate signals that may facilitate second-round effects.

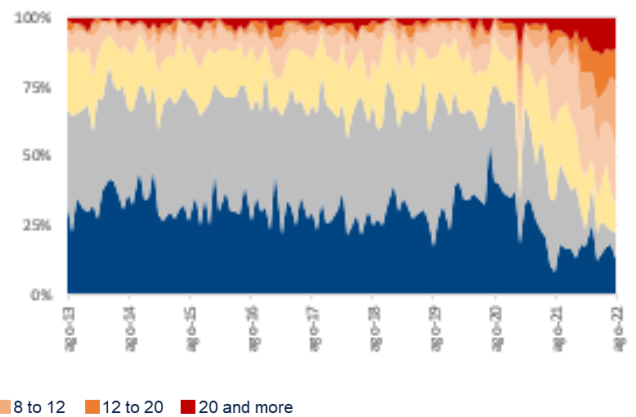
Another relevant signal is the "frequency" at which firms raise their prices. A higher frequency may well imply a change in dynamics, where any costs in repricing are overridden by the perceived need to keep-up with overall inflation. Graph 6 shows that today's rise in US prices is as prevalent and as frequent as during the Great inflation of the 70s. And Graph 7 shows similar worrying signals for the EZ.

PERCENTAGE OF ITEMS WITHIN DIFFERENT INFLATIONARY BRACKETS

Graph 6A. **US**



Graph 6B. **EZ**

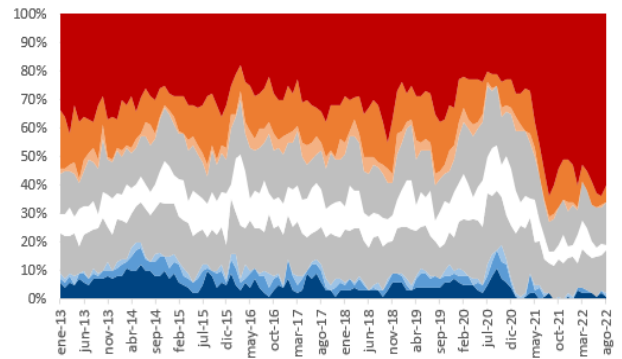
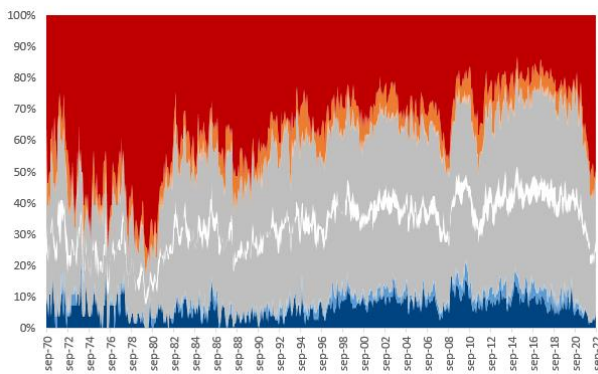


Source: BBVA Research, Haver Analytics

PERCENTAGE OF ITEMS SUBJECT TO FREQUENT PRICE CHANGES

Graph 7A. **US**

Graph 7B. **EZ**



■ % of items* with prices signaling
 ■ 3 consecutive months falling
 ■ Medium downward trend
■ Slight downward trend
 ■ No signal
 ■ Slight upward trend
 ■ Medium upward trend

Source: BBVA Research, Haver Analytics

What is our outlook?

Short term

At BBVA Research **we expect central banks to continue their preemptive fight against any unanchoring of expectations.** While we expect that during 2023 supply-shocks will dissipate, **we also expect that both the Fed and the ECB will maintain a tightening stance and not ease it until at least 2024.** Accompanying the tightening cycle, our current baseline scenario includes a relatively shallow recession in both geographies.

Yet uncertainty is high as we are navigating uncharted territory. First, **the persistence of current supply shocks remains highly uncertain.** What's more, some of today's supply shocks -e.g.,the war in Ukraine, bottlenecks due to China's zero-Covid approach, deglobalization trends led by East/West mutual mistrust, or the proliferation of populist policies that are prone to disrupt financial markets - may well morph into major structural shifts. Second, after decades without inflation, **both the Fed and the ECB are uncertain about today's values for some of the key parameters that would support a properly calibrated response** - e.g., the neutral rate of interest rates over which the reference rate would be contractionary/deflationary (historically close to 1.5% in real terms), the NAIRU or the unemployment rate over which wage pressures start reducing inflation (historically close to 5% in the US and X% in the EZ) or the sacrifice ratio that indicates how much annualized unemployment above the NAIRU would be "needed" to reduce inflation in 1pp (historically close to 2). An uncertainty that is further compounded by a Covid-induced reduction in the US labor participation (the Great Resignation), which might have permanently altered the wage/employment/vacancy dynamics and relations within that economy.

Though one thing is certain: the commitment of monetary authorities in controlling today's inflation. And as they face the aforementioned uncertainties, they have increasingly stressed that they would rather err on the hawkish side than on the dovish side when dealing with the risk of second-round effects. We expect monetary authorities to succeed and inflation to start slowly falling and be close to target by the end of 2023. That said, we recognize the difficulties they face, especially the ECB, which needs to calibrate a response that includes the severe and uncertain supply shock induced by the war in Ukraine.

Long term

In the longer run, leaving cyclical factors aside, inflation is solely the result of monetary policy. And in that regard both the ECB and the Fed have a strong record supporting a successful strategy built around an explicit inflation target of 2%. We have no reason to suspect the ECB's and the Fed's strong commitment and ability in keeping average inflation on target. But despite us being highly confident on them, we do recognize five long-term potential threats to an effective monetary policy that need to be continually assessed:

- **Loss of independence** - Social polarization has rekindled populist and autocratic alternatives within today's liberal democracies. Such a trend may eventually jeopardize the independence of central banks.
- **Loss of relevance** - In financial services, myriad organizations (including some outside the traditional financial sector) are using digital technologies to generate a growing number and range of new digital offerings and business models. As they do, central banks across the globe are assessing the threat that they impose on the effectiveness of traditional monetary policy channels to meet the obligations of central banks. The analysis and planning of future CBDCs is partly a response to these dynamics and qualms among monetary authorities. Despite the fact that the actual responses and subsequent impacts are still unknown, we remain confident in the proactive and competent steps being taken by central banks.
- **Fiscal dominance** - Higher fiscal deficit, due to either populist governments or future industrial strategies may raise fiscal debt to levels that make monetary policy less effective.
- **Financial dominance** - Be it from climate change, autocratic trends, deglobalization or/and a change in today's global liberal consensus, developed economies might face rising volatility into the future. As a result, the "Great Moderation" of previous decades may give way to a world where financial markets are less stable and central banks face increasing tradeoffs between controlling inflation and securing financial stability. A very worrisome backdrop prone to potential missteps that may permanently erode central banks' credibility.
- **Deflationary dynamics** - Finally, we should not unattend the long-term risk of too-low inflation. The return of secular stagnation dynamics in developed economies would strengthen deflationary spirals where central banks might once again be constrained by a lower bound on interest rates. We acknowledge that over recent years central banks have built and learned from an impressive toolkit of unconventional policies (quantitative easing and forward guidance), but they have yet to succeed in rapidly anchoring inflation under such scenarios. The risk of such a scenario remains relevant. In Keynesian terms, secular stagnation originates through a combination of lower "investment injections" and higher "savings leakages". A combination that in developed economies has been sustained by forces that may well perdure into the future: an aging population that, as in Japan, tends to save more; strong external savings coming from emerging markets (the-flip side to strong trade surpluses in EM, now epitomized by China); and a diversion of investment from developed to emerging economies.

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