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On the psychology of inflation and its implications

In the first months of 2022 we have witnessed a profound change in the global macrofinancial regime. Inflation is the order of the day, but its seeds were sown long ago. Over and above the monetary dynamics, analysts, commentators and investors should look to understand the psychological dimension that underpins an inflationary spiral and contributes to the self-fulfilling phenomenon. In addition, policymakers have to adjust their reaction patterns to the new framework. The era of the "Great Coincidence" in the policy mix and ultra-cheap money is coming to an end at a time of looming stagflation. New dynamics are emerging among monetary and fiscal authorities, as they simultaneously attempt to grapple with inflation and meet critical public expenditure requirements arising in connection with the COVID pandemic, the conflict in Ukraine and the green transition. All of these elements contribute to the greater narrative of an ongoing regime shift, with profound consequences for investors.

The monetary side of the inflation equation

In the first half of the year, inflation data exceeded the expectations of many analysts and commentators. Annual consumer price inflation figures reached their highest levels in decades, both in developed (DM) and emerging markets (EM), with some variation across regions. Within this context, public attention has shifted to understanding the mechanisms that underpin inflation. In particular, *inflation has two main dimensions: It is as much a monetary phenomenon as it is a psychological one*. In this paper I will address each of these components, and explore how they are interconnected.

Looking at the monetary side first, the velocity of money – the rate at which money supply is transacted for goods and services in an economy over a given time – has been declining since the 1990s. This downtrend was exacerbated by the COVID-19 pandemic and is a result of lower activity levels as well as monetary and budgetary support. At the same time, increased asset prices show that velocity in the financial sphere has trended higher. Hence, *consolidating the real and financial spheres into a unique notion of velocity, an inflationary process has effectively taken place*. In fact, excess liquidity in the real sphere typically occurs at the bottom of the activity cycle, and monetary accommodation helps transfer this surplus into the financial sphere. Therefore, a holistic notion of velocity should consider both real and financial transactions per unit of money.

In general, higher velocity in one sphere comes at the expense of a slowdown in the other, although periods of simultaneous expansion or contraction can also occur. The strong link between the two realms is also the reason why a financial crisis often leads to an economic recession. Household savings feed financial markets, while divestments and investment payments related to financial assets (i.e. dividends, coupons) transfer money back into the real economy, where it can either be spent or channeled into markets again. For some time, deceleration in money velocity masked inflation in the real sphere. However, an inflationary process was actually taking place in the financial world and is now moving back into the real economy, as a consequence of the ongoing regime shift. On top of this, *inflation may become a self-fulfilling phenomenon due to its psychological dimension*.

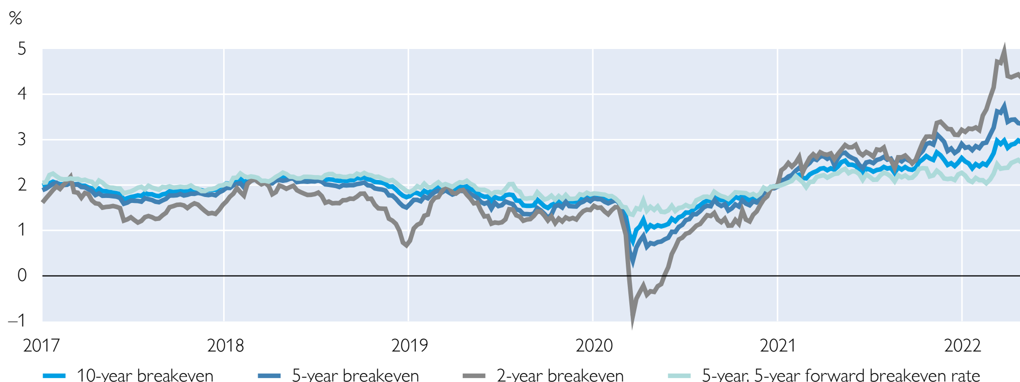
Inflation's powerful hereditary traits

An expansion in the monetary base alone cannot trigger an inflationary spiral: A shift in the psychological framework, or psychological referential, must simultaneously occur. This referential is based on the link between long- and short-term memory, and forgetfulness. Inflation is a discovery process of memory awakening and adaptive expectations; people anticipate the future in much the same way that they remember and forget. A sudden shift in data (increasingly higher inflation rates each month) builds up the public's short-term memory that brings the long-term reference back to the forefront. This is what happened over the past year or so. *Perceived inflation is a memorized variable with powerful hereditary traits. By raising public awareness of existing inflation by regularly publishing rate hikes, the existence of the threat is recognized and the inflationary process is thereby accelerated.* In this sense, inflation is a self-propelling phenomenon. Moreover, psychology and inflation are intrinsically interrelated: Time appears to fly during periods of inflation, in both the real and financial spheres. For example, one hour in normal circumstances may seem like one day under hyperinflation.

As inflation persists and experience of the past decade (memories of disinflation/deflation) gradually fades, market attention will revert to the long-term reference (the 1970s or stagflation). Short-term inflation rates currently overshoot the long-term average by the widest margin since the 1980s. In the past, this has been accompanied by higher inflation expectations. Another intrinsic element of the regime shift is that the process is self-sustaining – there is inflation when people believe there is inflation. In fact, *public memory plays a fundamental role. History does not repeat itself but, rather, the psychology of people remains relatively constant*. Only few people today have a vivid recollection of the great inflation in the 1970s, and they have not faced a sustained period of rising prices. *The past decade of secular stagnation has fostered a widespread belief that post-COVID inflation would be short-lived, whereas this is not the case*. Major (historical) core narratives are blurred by a coefficient of forgetfulness: The longer the event dates back, the greater the coefficient. Through sudden non-linear jumps, a short term event can reinvigorate dormant memory patterns which trigger inflation in the real sphere. This is most probably where we are today.

Chart 1

US market inflation expectations are awakening



Source: Amundi Institute on Bloomberg data, as of May 11, 2022.

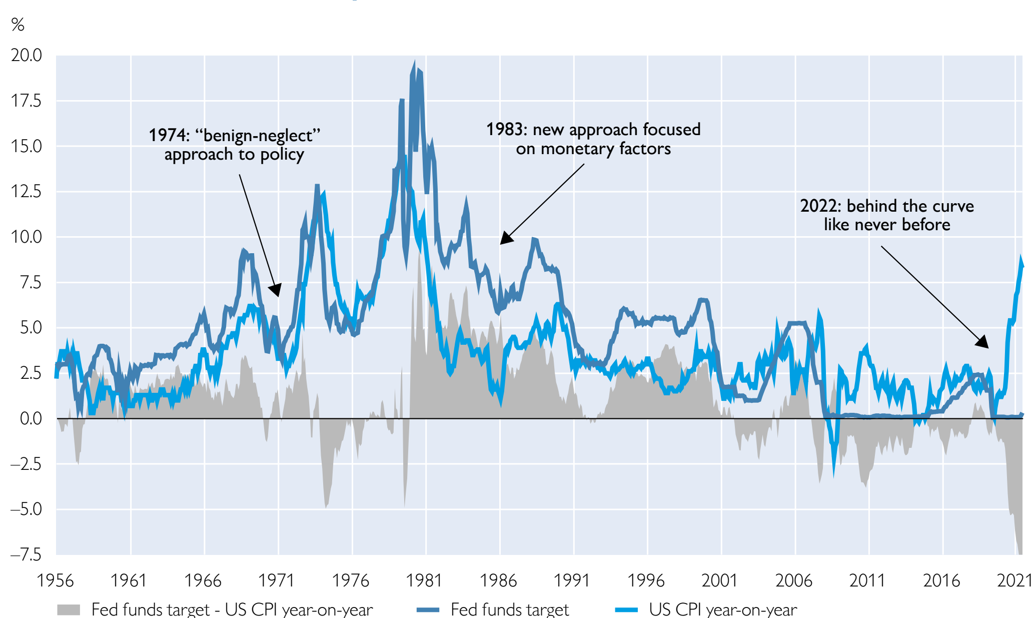
Narratives also play an important role in spreading inflation. Mathematically, narratives behave like a virus, turning inflation into a mass phenomenon with feedback loops and self-fulfilling prophecies. Evidence of this can be seen in inflation in areas not hit by bottlenecks, but where inflation is caused simply by broadcasting talks, narratives and stories on TV. The dissemination of inflation narratives in the media has created anxiety and fear. *Social worries have risen rapidly, as the poorest are often hit the hardest, and pre-existing social divides have been unveiled*. Moreover, the power of the media today is clearly greater than ever, and this too is an important dimension. Interestingly, there is a discrepancy between (academic and non-academic) expert opinion and the public's perception about inflation. Whereas experts agree that a Fed rate hike is deflationary, the public believes that a central bank rate hike is an inflationary move[1] which has implications on personal expenditures (higher cost for mortgages, loans etc.) and consequently results in higher wages in a negative feedback loop for higher prices. This is a critical consideration in terms of central bank (CB) action and self-fulfilling expectations.

The Fed behind the curve

In the current inflationary environment there is a high pressure on policymakers to provide protection and mitigate the effects by e.g. imposing price caps and providing subsidies or fiscal transfer payments. *Inflation often leads to more fiscal accommodation rather than less, which in turn contributes to the dynamics of inflation itself through both real and psychological channels*. Lately, CBs have been criticized for having fallen behind the curve on inflation. Now, they are caught in the crossfire between killing

Chart 2

The Fed and the historical precedents of 1974 and 1983



Source: Amundi Institute on Bloomberg data, as of April 27, 2022.

[1] *Andre, P., C. Pizzinelli, C. Roth and J. Wohlfart. 2022. Subjective models of the Macroeconomy: Evidence from Experts and Representative Samples. The Review of Economic Studies, pp. 1–34.*

inflation at the risk of triggering a recession, or letting it run to stimulate nominal growth with a hefty price to be paid later on.

By any reasonable measure, the Fed has fallen behind the curve on inflation. A Taylor-type monetary policy rule points to a gap of approximate 300 basis points. Likewise, a forward guidance approach corroborates that the Fed is behind (although relatively less than the Taylor rule suggests), since markets have already moved ahead of the bank's effective action. Two historical precedents – where core personal consumption expenditures (PCE) was as high as today – come to mind. In 1974, the Fed downplayed the monetary factors that contribute to price increases and kept the policy rate low, causing higher inflation, economic volatility and multiple recessions. In 1983, it had learned its lesson and raised rates despite falling inflation, stabilizing the economy until the 1990–1991 recession.

Although the jury is still out, today we are closer to a 1974-style scenario; the initial "behind the curve" gap is similar, and the Fed is less hawkish than it says. *The longer the Fed delays taking severe action, the higher the terminal policy rate will have to be. Nevertheless, it is unlikely that a full policy normalization will occur because of the recessionary risk that it entails.* The consequences of a conservative policy stance will be higher, persistent and self-perpetuating inflation. The ex post rate will remain relatively low for some time, but nominal rates will trend upward, with no way to stabilize volatility in the real economy. The epilogue will nevertheless be a recession which, while it can be delayed, cannot be avoided altogether.

As we move toward a new economic and financial regime, governments will assume control of money while maintaining double-digit monetary growth for several years, thus facilitating the transition from free market, independent CB rule-based policies toward a command-oriented economy. *Additionally, extensive fiscal accommodation is required to finance the post-COVID recovery as well as the energy transition in the fight against climate change*; the need for independence in the field of energy supply was further accentuated by the conflict in Ukraine. Fiscal expansion must necessarily come from a continuation of the financial repression environment, with CBs staying behind the curve to allow further debt expansion at sustainable costs. This could build the conditions for the simultaneous financing and expansion of the real and financial spheres, leading to temporary increases in the prices of assets, goods and services.

The end of the "Great Coincidence" in the policy mix

Overall, we are reaching the end of the great monetary consensus. The independent CB model ("one tool, one objective") is no longer applicable in an increasingly fragmented world; hyperbolically, there are as many policy reaction functions as there are countries facing inflation. While the public debate has focused on the monetary side, *we should look at the overall policy mix in order to understand the novel role of monetary policy*. The current popular consensus is that certain critical needs must be covered from public funds. However, the widespread belief that fiscal spending is effectively unlimited (i.e. the fiscal "free lunch") is going to be severely tested in the new macrofinancial regime. Moving forward I see three possible scenarios for the policy mix:

1. *Continued fiscal expansion and monetary normalization. This is difficult, insofar as monetary normalization is a*

fiscal space "killer", making large debt burdens unsustainable. Moreover, policymakers should consider a safety net for maneuvering further in case of a recession. The main risk factor here is timing: Monetary authorities could turn off the taps too quickly; and fiscal authorities could intervene too late. In the markets, this option implies further repricing (downward) of risky assets, particularly of interest-rate sensitive stocks.

2. *Central banks remain behind the curve for some time in order to accommodate a renewed fiscal impulse.* This is the best way to balance the growth/inflation trade-off and to engineer a controlled economic slowdown. Here, investors should look to combat inflation by focusing on dividend equity and real assets.
3. *Fiscal expansion and complete CB accommodation, uprooting all inflation expectations, to levels most people today have never been confronted with before.* Think of this as a 1970s style regime, with high inflation, nominal growth, market-led corrections in nominal rates, adjustments in all risk premia and valuations at equilibrium. Investors will have few places to hide except in cash and real assets.

While public opinion is mostly focused on the first option, I believe the second or third are more likely. *Fiscal spending must target new sets of critical public goods (the energy transition, social and strategic autonomy) and central banks will have to accommodate these priorities.* This is particularly true in Europe, where the monetary authorities have to fill the void left by the lack of credible budgetary rules. The worst-case scenario is full-blown stagflation. If nothing is done on the fiscal side, then mechanically there will be a tightening in the policy mix, reversing the trend of the past few years.

A new regime: implications for investors

In the current and uncertain environment, a global repricing of risk is underway. It started with bonds, particularly on the short end of the yield curve, but has since paused; this should remain paused or even retreat as the central bank delivers less than required, feared or priced into the market. The final leg of this repricing process will occur with additional pressure at the long end, via a steepening of the curve, signaling an inflection point for risky assets and a preference for bonds. Large insurers and pension funds will play an important stabilizing role in this respect. Another consequence of the inflationary regime is a change in correlation dynamics; higher inflation is turning the correlation of equity and bonds positive, challenging basic portfolio composition tenets.

In general, the performance of equities and bonds will deteriorate or even reverse, provoking widespread underperformance. The repricing point in equities should see a tilt toward value and quality (away from tech and more "glamorous" but less solid business models), while the lagging repricing of credit should catch up and could finally close the gap. Further repricing in equities and credit would provide a more comfortable signal that it is time to increase risk: That is, in order to consider adding more risk, we would want to see the 10-year portion of the curve plateau. *Overall, investors should aim to preserve the purchasing power of their portfolios, building upon the "real concept", and searching for additional sources of diversification in real and alternative assets. The aim of the game is to think hard about what risk premia and valuations could look like at equilibrium in the new regime*: The ones we have seen in the past 35 years or so are no longer available in the current environment.