# The Inflation Dilemma

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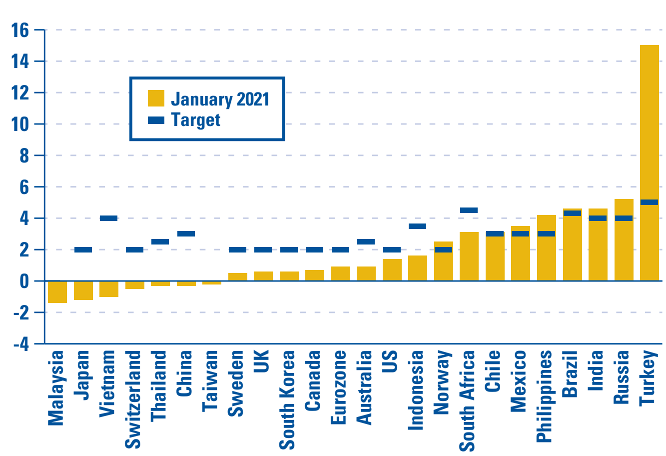
## The Inflation Dilemma *by Macroeconomic Team*

While surges in inflation have been a recurring feature of the US economy in the early post-WWII years, during the past three decades the *leitmotiv* of advanced economies has been the so-called 'Great Moderation'. Following the oil price shocks of the 1970s and periods during which governments leant heavily on central banks to do their bidding (notably, keep interest rates low), decisive action was required to vanquish increasingly entrenched inflation. Only a severe recession and a shift in policy regimes in the 1980s allowed central banks to banish inflation and set the stage for ever lower price growth in subsequent decades. This backdrop of low inflation not only allowed interest rates to embark on a sustained downward trend, but also permitted public and private debt to reach ever higher levels, while simultaneously boosting the price of financial assets. More recently, the benign inflation backdrop allowed policymakers to adopt radical support measures in the wake of global crises, be they unprecedented central bank balance sheet expansions or dramatic increases in fiscal support for households and businesses. Indeed, policymakers today are still more concerned about the risk of deflation and would welcome a moderate increase in prices. Nevertheless, some financial analysts, economists and policymakers are concerned that a sharp increase in inflation lies ahead. This would change everything. Financial assets are currently priced assuming that inflation remains below-target or at least benign and that policy interest rates will remain "lower for longer" than in previous cycles.

The arguments for meaningfully higher inflation have their merits, but are not overwhelming in our view. They broadly divide into short-, medium- and long-term risks.

### Chart 1: CPI and Targets, % yoy




*Source: National Statistical Offices*

### The Short Term

The clearest and most manageable risk is that of a rise in inflation post-pandemic as the global economy recovers. While assumptions about the speed and efficacy of vaccines may vary, it is likely that at some stage pent-up household demand will be released, chasing too few goods and services whose provision still suffers from production bottlenecks and scarred labour markets. This argument receives further support by the sharp increase in central bank balance sheets. The theoretical underpinning for this is the Quantity Theory of Money (QTM), most famously proposed by Milton Friedman. While the large balance sheet expansions in the wake of the Great Financial Crisis (GFC) did not result in rampant inflation, the post-pandemic situation is somewhat different. In the GFC, central bank lending essentially substituted for a broken credit market, implying that broad monetary aggregates did not expand in line with narrow money. By contrast, in 2020, central bank policies encountered a healthy, well-functioning credit market and their actions thus added to pre-existing lending. This led to a surge in broad money measures compared to the muted rise post-GFC. Other, more technical factors that could boost short term prices include adverse base effects and certain food price increases due to supply shortfalls.

### The Medium Term

Additional future risks may arise from structural shifts which have contributed to lower inflation in the past but may now go into reverse. Two factors in particular account for this. From the 1980s onwards, globalization has been on the march, via the conclusion of the Uruguay trade round, the collapse of the Soviet Union and the successive entry of China into the world economy (culminating in WTO membership in 2001). The latter two developments boosted the global supply of labor as did the increasing entry into the workforce of women in advanced economies. Higher participation rates led to a loss of bargaining power for labor, keeping wage growth in check. The rise in goods traded was accompanied by an increase in capital flows via cross-country investments. A greater share of income accruing to shareholders fuelled the well-known 'savings glut' which has kept inflation and interest rates low while allowing debt to soar. These trends are at risk of reversing. Globalization has been under attack from many political sides and barriers are being erected to both trade and migration. In turn, this risks driving inflation higher.

The second risk stems from policy. On the one hand, there is increasing concern about complacency, for example the Fed's pledge to let inflation overshoot its target for some time (partly echoed by the ECB). On the other hand, some fear that central banks have become captive to governments given the amount of policy coordination, personnel interchange and massive accumulation of government debt. Indeed they could face several dilemmas in the future: will they tighten policy as much as necessary to control inflation? How will central banks respond if governments fail to bring deficits under control? Would they nevertheless tighten, let inflation run or write off government debt? The possibility of such extreme pressures could put central bank credibility to the test and, by backwards induction, could allow inflation expectations to rise.

### The Long-Term

The final risk can be captured in a single word: Ageing. An older society results in slower labour force growth while consuming more. Labour shortages can emerge, putting upward pressure on wages. Furthermore, as the consumer class rises relative to the number of people engaged in production, excess demand is created. In turn, the desire to save can fall below the desire to invest, turning the previous savings glut into a savings shortage, driving interest rates higher.

## No Time to Panic

The above arguments are reasonable assumptions about the future, but they do not necessarily or ineluctably point to the path ahead. What follows is a list of counter-arguments:

- *Demand Release*: With household savings soaring during the lockdown, demand could be released precipitously once the pandemic has come under control. Yet, this is unlikely to be a sudden event. Most likely, distancing and barrier measures will have to remain in place, even as vaccination progresses. Economic "normalization" may thus turn out to be a very gradual or intermittent process. The critical factor will be the output gap. While some job market healing has begun, business closures imply that unemployment is likely to remain elevated until economies have fully adjusted to the new operating environment. What is more, recall that prior to the pandemic, economies were operating under ultra-tight job markets, with no sign of inflation. Finally, even if heightened demand induced a spike in inflation, it would necessarily be temporary, allowing central banks to "see through it".

- *De-Globalization*: It is true that globalization in the form of free movement of goods and people as well as globally integrated supply chains have come under attack. However, not only is this a process that has always proceeded in stops and starts, but it also has new champions in the form of China. What is more, the recent surge in Populism could fade as quickly as it emerged.

- *Balance Sheet Expansion*: The assumption that a higher quantity of money would necessarily lead to higher inflation has not been borne out in reality. Even Milton Friedman noted that some key QTM assumptions no longer seemed to hold: the velocity of money turned out to not be constant and the link between base money and broader monetary aggregates was unstable. Credit extended to the economy mattered more but did not depend on the amount of base money in circulation. While Monetarism continues to have its adherents, the more widely held Modern Keynesian view holds that inflation is a function of the state of the labor market (the output gap) and of expected inflation as expectations eventually feed into price setting.

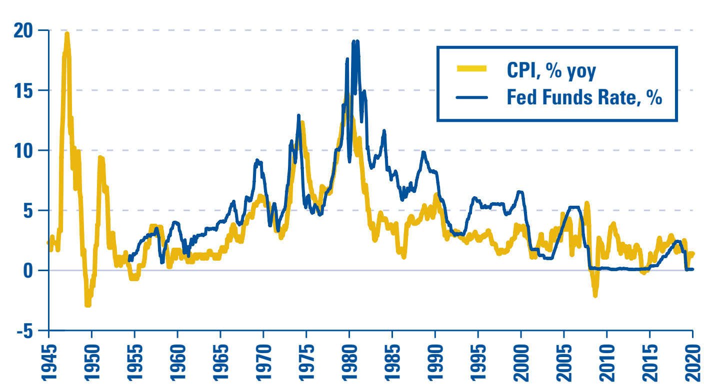
- *Central Bank Deference*: Will central banks become more pliant to government demands as they wish to support growth through expansive policies and accumulate greater debt? An age of financial repression akin to the 1970s may indeed lie ahead of us. This can take various forms and may include keeping real interest rates as close to zero as possible as long as they don't lead to runaway inflation. But ultimately a central bank derives its power from its credibility and its ability to act independently. Time and again governors and presidents of central banks (as well as judges) have shown their determination to abide by their oath of office once installed and to act in the interest of economic stability, rather than kowtow to government.

- *Ageing*: Many DM economies are indeed aging and several EM economies, notably China, risk "getting old, before getting rich". A prime example in how ageing can affect a society and an economy is Japan. Yet, Japan has been battling deflation for years. The reason for subdued inflation in Japan is that people successively chose to work longer as they faced increased life expectancy. In general, greater female participation in the workforce, immigration and productivity gains can all contribute to keep the rise in dependency ratios and thus the pressure on wages in check.

## How to Position?

Should a significant acceleration in inflation come to pass, the investment implications are clear, even if they risk being not particularly remunerative. Assuming central banks react to rising inflation with tighter monetary policy, fixed income instruments are set to incur dramatic losses, given current near-zero yields. The situation will likely be worse in the over-leveraged corporate credit market, where default rates may spike. All else equal, equity markets would likely suffer too as future earnings would be discounted at a higher rate, depressing today's prices. As a result, the farther a company's expected cash flows lie in the future (e.g. "growth" stocks), the harder the impact will be. However, the impact on equities depends not only on whether inflation is accelerating, but more importantly, on the level it eventually reaches.

### Chart 2: US CPI and the Fed Funds Rate




*Source: Bloomberg*

### The early post-war period

Inflation during the post-war period was highly volatile, often driven by policy intervention and oscillating between surges and outright deflation. It reached double-digits in the wake of WWII, once the wartime price controls were removed, domestic demand increased and food prices surged due to crop shortages (CPI reached a peak of 19.7% yoy in March 1947). Yet, by late 1948, a combination of tight monetary policy, abundant harvests and weakening demand had led the economy into recession and deflation. A recovery began in late 1949 and by mid-1950 the Korean conflict returned the economy to a semblance of wartime status. Demand surged as consumers fearful of shortages hoarded goods, boosting prices to a new high of 9.3% by early 1951. But the Korean war also marked a turning point in how the economy would evolve from thereon: while it would still experience significant inflation and even price controls at times, it did not again witness the previous levels of volatility and outright deflation. This new, modern era saw price changes that were nearly always positive, but usually relatively modest. Also, food prices, which constituted about 40% of the basket at the end of the 1940s, dropped to a weight of less than 30% by the end of the 1950s and to 23% by 1967 (and 14 % by 2012). Despite the release of renewed wartime price controls and two mild recessions early and late in the decade, the 1950s were generally a period of low and stable inflation. This situation prevailed until the mid-1960s. Interestingly, throughout this period, the public and policymakers remained acutely aware of price increases and were fearful of a return of inflation. But it took until late 1966 for inflation to pick up in response to strong growth and rising food prices. In October 1968, it had reached 4.7%.

Importantly, the government ran steadily increasing budget deficits starting in 1966 as it held a strong belief in the Philips Curve, the trade-off between inflation and unemployment, and sought to support the economy. Military spending also rose with the Vietnam War, while domestic spending increased and taxes were cut. As a result, booming demand began to outstrip capacity, driving prices higher: CPI rose to 6.1% in 1969 and recorded a still-high 5.5% in 1970. Yet, by mid-1971, it had slowed to less than 5%, at least partly due to a recession. With the public dissatisfied with inflation after nearly two decades of relative price stability, President Nixon took the dramatic step of taking the US off the gold standard and instituting a freeze on wages and prices. Inflation subsequently moderated until the first oil shock in 1973.

In terms of financial market implications, the post-Korean war period is perhaps the most instructive at the current juncture: inflation was low and stable for long periods, but did experience significant acceleration at times. Crucially, this took place amidst a booming economy and, in the late 1960s, on the back of a significant fiscal expansion. Yet, while inflation quickened, it never reached double-digit levels and thus the positive effects of a strong economy on stocks could dominate. In the 1951-1960 period, the annual return for stocks was 16.2%, outperforming the 2.5% annual gain of bonds. During the 1961-1970 period, stocks gained an annual 8.2%, again outperforming the 2.5% annual return of bonds. What is more, the Sharpe ratio for stocks exceeded that of bonds during both decades.

## The 1970s

The 1970s were the only period in US post-war history other than the late 1940s when inflation attained double-digits. The rise in inflation resulted from the well-known oil price shocks of 1973 and 1979 and the wage-price spiral they set in motion. Uniquely for the post-war period, this era was marked not by a booming economy, but by economic stagnation, giving rise to the term "stagflation." We note that during such periods of "very high inflation" (12-14%), the best hedge is provided by commodities (gold, silver, industrial metals) and TIPS. Both equities and fixed income instruments provided negative returns. However, if equity exposure is necessary, the downside can be limited by overweighting defensive sectors such as utilities, telecommunications, and healthcare.

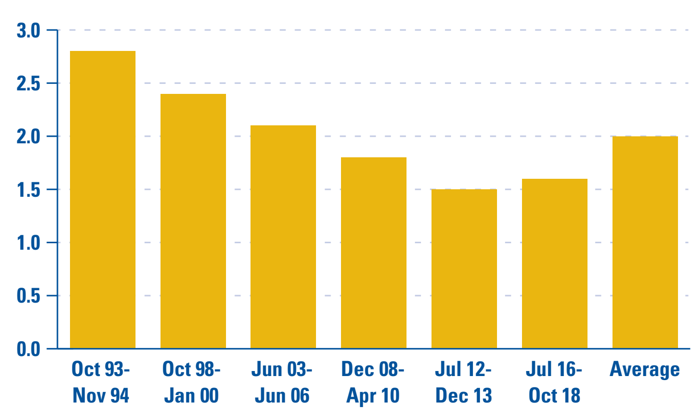
## 1990s to today

During the last 30 years (1990 to present), US inflation has been on a steady decline towards extremely low levels. Nevertheless, 10yr Treasury yields rose 140 bps or more six times (on average by 200bps). During these periods, risk assets generally outperformed as an environment of improving growth and higher inflation outweighed the drag from higher yields. EM equities outperformed DM in four of the six episodes, undermining the notion that Fed rate hikes would disproportionally hurt EMs due to their elevated debt levels (Chart 4). Within EM, Russia, South Korea and Brazil delivered particularly strong returns on average, as rising inflation boosted commodity prices, cyclical currencies (e.g. the Korean won) and higher-beta markets. In contrast, Chinese equities lagged on average in those episodes. Within DM, the performance divergence across countries is less profound, though the UK notably lagged, whereas Australia and Canada outperformed DM.

On a sectoral basis, IT, Materials and Consumer Discretionary outperformed in terms of the average return over the six episodes, while utilities, consumer staples and healthcare underperformed. In general, when a cyclical upturn causes inflation to rise, cyclical sectors tend to outperform defensives as the former experience a stronger earnings recovery, while the latter are more vulnerable to rising bond yields. An exception is the IT sector, which historically has been perceived as defensive due to its low sensitivity to economic growth. Whether this relationship will hold going forward is open to debate. Certainly, some of the higher growth IT and New Economy stocks with more distant cash flows would be expected to underperform, all else equal, as the discount rate rises.

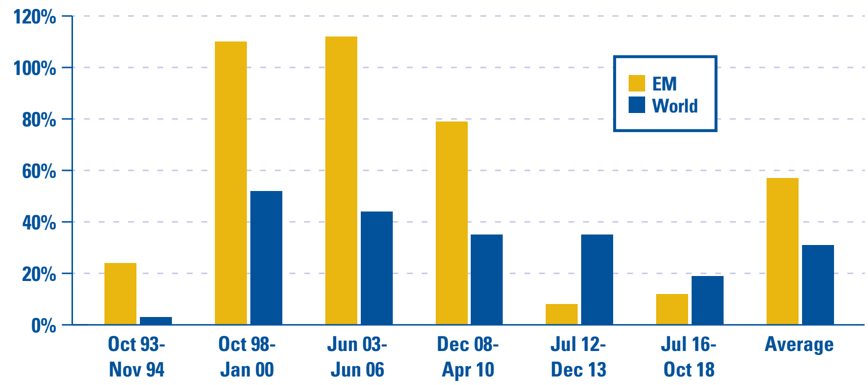
Outside the equity space, the usual go-to assets in times of inflation are precious metals, particularly when the real interest rate is suppressed. Base metals and energy also tend to perform well when inflation is rising. TIPS are an obvious investment choice, although there may be issues of inflation measurement, which could leave investors "under-insured".

## Chart 3: Change in 10y UST Yield, % Points




*Source: Bloomberg. The following dates are used: 15 Oct, 1993- 18 Nov 1994, 2 Oct 1998 - 14 Jan 2000, 13 Jun 2003 - 23 Jun 2006, 19 Dec 2008 - 09 Apr 2010, 13 Jul 2012 - 27 Dec 2013, 1 Jul 2016-26 Oct 2018*

## Chart 4: Equity Returns in Periods of Rising Bond Yields




*Source: Bloomberg. MSCI prices in USD terms are used.*

## Summary

The risk of a rise in short-term inflation cannot easily be dismissed. Once the pandemic has been brought under control, it is possible that price growth accelerates as rising demand could exceed productive capacity (an early example of this is the sharp increase in shipping costs observed recently). Housing and food prices as well as adverse base effects could further add to headline inflation and feed into expectations that affect future price setting. But the likelihood that activity will resume only gradually will act as an important counterweight and keep any such increase short-lived, allowing central banks to look through it.

The proposition that inflation would sustainably rise above 5% and interest rates thus to at least 6-7% relies on assumed structural changes described earlier. Yet, globalization and the integration of supply chains are unlikely to unravel completely, not only because of the leadership change in the US, but also because of the scale of the benefits reaped by many countries. Similarly, central banks are unlikely to willingly relinquish their hard won independence. Indeed, they now have a powerful arsenal at their disposal to quell any incipient rise in inflation, if they are so inclined. Societal ageing is a long-term process, which could yet be exacerbated by curbs on immigration. But even under these circumstances, its effect can be mitigated by greater female participation in the workforce, longer working lives and gains in productivity. A sustained rise in inflation would require the simultaneous occurrence of an economy running above potential, rampant successive fiscal deficits and the abdication of responsibility by central banks – a constellation we regard as highly unlikely. Ageing or de-globalization by themselves are unlikely to be sufficient conditions for a significant and sustained increase in inflation.

While not our base case, should inflation nevertheless rise to a permanently higher pace, there are ways to hedge. Risk assets generally benefit during periods of mild-to-high inflation (i.e. up to 5%), as do equity sectors geared to the economic cycle. In fixed income, TIPS provide a degree of protection and commodities, including gold and industrial metals linked to the economic cycle also benefit. Should inflation rise to double-digit levels, exposure to equities and nominal fixed income instruments should be significantly reduced in favour of commodities and TIPS, which provide the best insurance against rampant, sustained price growth.



CITY OF LONDON
Investment Management Company Limited

**Contacts**

**Information/Queries**

**London Office**
77 Gracechurch Street
London EC3V 0AS
United Kingdom
**Phone:** 011 44 20 7711 0771
**Fax:** 011 44 20 7711 0774
**E-Mail:** info@citlon.co.uk

**Philadelphia Office**
The Barn, 1125 Airport Road
Coatesville, PA 19320
United States
**Phone:** 610 380 2110
**Fax:** 610 380 2116
**E-Mail:** info@citlon.com

**Seattle Office**
Plaza Center
10900 NE 8th Street, Suite 1414
Bellevue, WA 98004
United States
**Phone:** 206 505 2587

**Singapore Office**
20 Collyer Quay
10-04
Singapore 049319
**Phone:** 011 65 6236 9136
**Fax:** 011 65 6532 3997

**Dubai Office**
Unit 2, 2nd Floor
The Gate Village Building 1
Dubai International Financial Centre
P.O. Box 506695, Dubai, United Arab Emirates
**Phone:** 011 971 4 249 8402
**Fax:** 011 971 4 437 0510

**Website**
**www.citlon.com**
**www.citlon.co.uk**