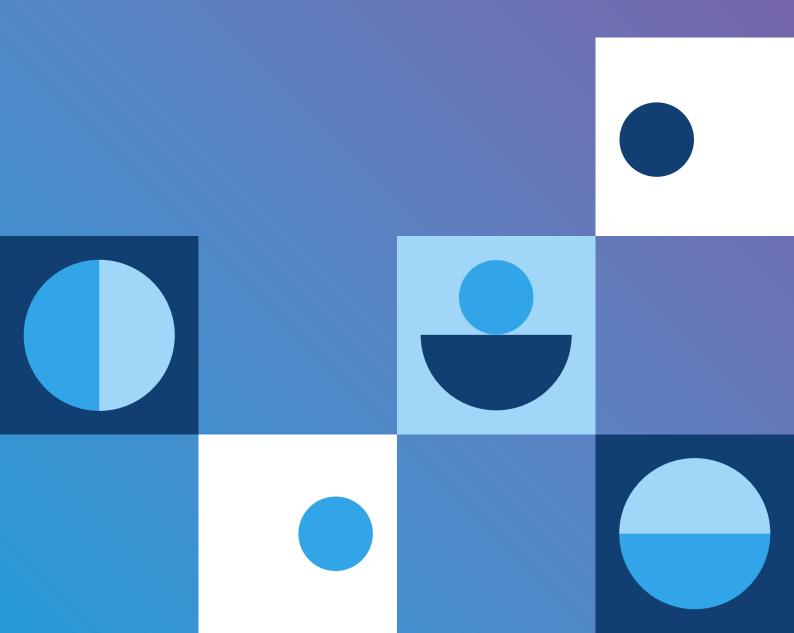


beware of

inflation

Assessing risks and investment implications



Post-crisis inflation fear: Here we go again — or is it for real this time?

The extraordinary events of 2020 so far have had a huge impact on the global economy and financial assets across the board. Although some riskier asset classes, such as equities or high yield bonds, along with oil prices, have recovered significantly from their mid-March lows, the economy may still be in the process of bottoming out.

The combination of a major oil-price shock and a sudden collapse in demand, amid the current deep recession, has led to a significant downward revision in short-term inflation estimates across the globe. Forecasts by leading investment banks and research firms see inflation in major economies, with the exception of China, falling by half in 2020 from 2019 levels— and in some cases, by even more (see Figure 1).

However, following unprecedented monetary and fiscal policy action, concerns have resurfaced regarding the possibility of a resulting increase in medium- to long-term inflation. These concerns are reminiscent of those raised amid monetary interventions during the global financial crisis (GFC).

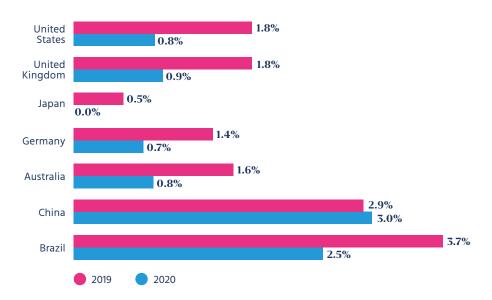


Figure 1. Consumer price inflation (CPI) 2019 versus 2020 forecasts

Source: Bloomberg, Mercer analysis as of June 2020.

Figures for 2019 are actual realized figures, whereas 2020 figures are consensus forecasts from leading financial institutions.

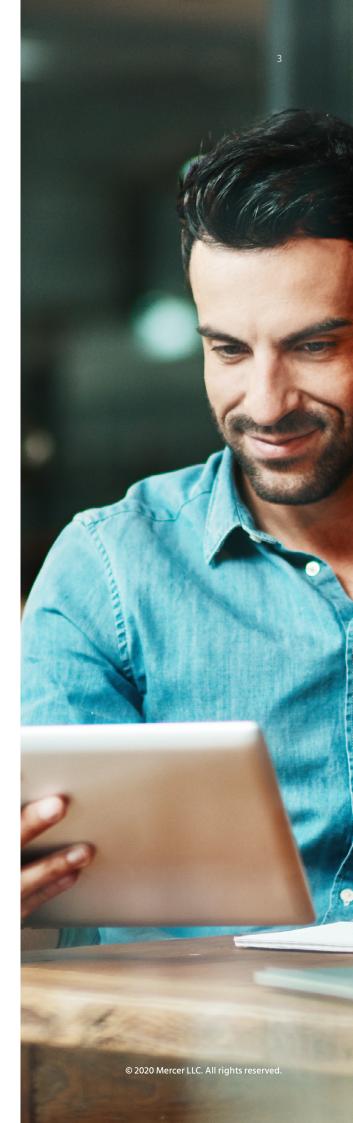
¹ Major central banks have cut their benchmark rates to record lows and relaunched asset purchase programs — in some cases, more broadly than in 2008. The Federal Reserve (Fed), for example, is purchasing investment-grade corporate bond ETFs and even some high yield. In mid-June, the Fed confirmed that it would start executing purchases of individual corporate bonds, as previously announced.

At first glance, the post-GFC experience casts doubt on this prediction, as consumer prices have remained low in spite of expansionary monetary policy. But there are several possible explanations for these continuing low prices:

- First, compared to the last time inflation was significantly above target in the western world, which occurred during the 1970s, prices and wages are currently less likely to be formally indexed to inflation. Additionally, globalization has resulted in many markets becoming more competitive. Both of these changes have made it harder to pass on inflation to the consumer. In other words, the transmission mechanism between money supply and consumer prices may have weakened over the last five decades.
- Second, post-2008, policymakers may have successfully rescued financial institutions and stabilized asset prices, but transmission into the real economy has been relatively weak. Rather than creating consumer price inflation, the stimulus resulted in asset price inflation. Thus, some regard the bull market of the 2010s as at least partly the result of cheap money and falling discount rates.
- Finally, it is also possible that in the absence of monetary intervention, much of the developed world would have experienced deflation during the last decade. Not just because of the 2008 downturn, but also because of increased competition and downward pressure on consumer prices from structural factors such as globalization and technology.² Actual post-GFC inflation might thus have been much higher than headline figures suggest if we assume it offset deflation. In a less deflationary environment due to changing demographics³ and the possibility of deglobalization, tech disrupters becoming monopolies or labor reasserting itself politically expansionary policy could lead to higher inflation if the link between money supply and consumer prices strengthens again.

Juselius M and Takáts E. "The Enduring Link Between Demography and Inflation,

BIS Working Papers, Number 722 (2018).



 ² For further details on structural and cyclical factors affecting inflation, please see our 2018 paper, <u>Inflation Awareness</u>.
³ Children and retirees consume, whereas a working-age population both consumes and produces. We therefore consider a younger or older dependent population to be inflationary, as it starts to consume more than it produces. For more information, refer to

Whether post-GFC inflation was simply low, or deflationary forces masked much higher inflation than most realize, the COVID-19 environment may be different. This time, governments and central banks are providing far more direct support for the real economy. The US has been enhancing the amount and duration of unemployment benefits, while the UK has embarked on a state-funded furlough program to make it possible for people to stay at home. At the same time, governments are providing significant support to businesses of all sizes.

So far, this support has been sustained primarily by vast debt accumulation. One concern is that these programs could be excessive and could continue to create inflationary pressure long after the economic restrictions have eased. The outcome is difficult to forecast, because much depends on how consumers and businesses respond to the stimulus. Spending would be inflationary, but any saving or deleveraging would be much less so. Another concern is that with limited appetite for the austerity seen after the GFC, it is unclear how governments intend to pay for newly accumulated debt without resorting to monetization.

The shock to individual incomes and corporate earnings from putting the economy on hold creates an immediate hit to economic growth. In addition, job losses and corporate bankruptcies may have long-lasting effects. And the high level of pre-existing consumer, corporate and government debt may further suppress economic activity as all parties look to deleverage. This combination is bad for economic growth and deflationary in the short term.

The majority of policy actions that governments are taking are designed to limit these lasting effects. Though these actions support economic activity, they risk a rise in inflation beyond the short term. For policymakers today, we believe the risk of doing too little (economic collapse and/or deflation) is likely to look greater than the risk of doing too much (inflation above target and/or a growing budget deficit). We believe governments and central banks are therefore likely to view overshooting on the inflation front as a gamble worth taking.⁴

Consequently, we believe investors should avoid biasing portfolios with the assumption that the disinflationary trends of the past three decades will continue or that we will see a repeat of the post-GFC experience. Instead, investors should seek to ensure that portfolios will also be robust in inflationary scenarios that may arise in the coming decade.



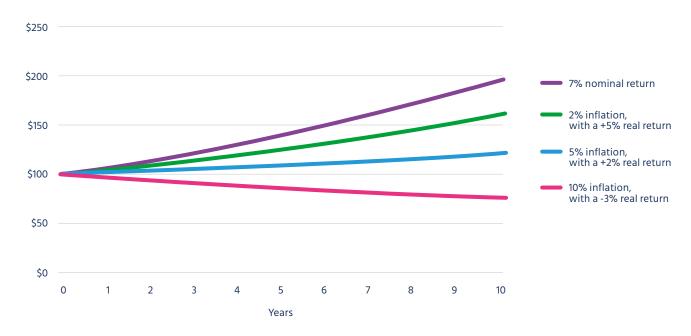
⁴ It is worth noting that even before the COVID-19 crisis, the Fed had already been considering a shift to average inflation over longer periods, to compensate for below-target inflation by letting inflation overshoot in periods of stronger growth.

A bit of inflation - so what?

Whether inflation is 2% or 5% might not seem important, but higher inflation has a major impact on portfolios when it compounds over longer periods. Most investors aim for real returns — increasing portfolio value while keeping purchasing power constant. For instance, if the portfolio doubles in value over the next 10 years but prices increase threefold, the investor will be worse off, because the portfolio will buy less than it does today. It would have been better to spend the money instead of investing it.

Figure 2 shows how even small increases in inflation can significantly reduce portfolio returns. At a 7% p.a. nominal rate of return, \$100 invested will grow to almost \$200 over the next 10 years. Adjusting for reduced purchasing power due to inflation, at 2% p.a., this would be around \$160. This falls to \$120 at 5% inflation p.a., and if inflation is 10% p.a., it is only \$75 in inflation-adjusted terms. Therefore, investors cannot ignore inflation. They must prepare their portfolios for it to avoid adverse outcomes.

Figure 2. How inflation impacts a portfolio



So how can investors position their portfolios for inflation scenarios?

Investors who want to provide some protection against inflation and changes in inflation expectations should assess the relationship between inflation and the performance of the assets in their portfolios. Not all assets correlated with inflation provide the same degree of protection.

We can distinguish between asset classes that beat inflation, are sensitive to inflation and hedge against inflation. Depending on which scenario materializes, each asset class will perform differently.

Inflation-beating assets, such as equities, have no inflation linkage over the short term and react negatively to inflation surprises, but we expect them to offer returns that beat inflation over the longer term. However, they are likely to perform poorly in a period of countercyclical⁵ inflation, given their dependence on economic growth (for example, see the 10-year period of stagflation shown in Figure 3).

In such an environment, even if companies can ultimately pass on some of the increased costs to consumers, these assets may not beat inflation in the short term. And if interest rates increase due to higher inflation, higher earnings may be more than offset by a rising rate at which these earnings are discounted. Such assets will therefore be most suitable for investors targeting capital growth but primarily concerned about pro-cyclical inflation or inflation over very long periods.

Inflation-beating

Positive real returns over the longer term

Low or negative returns over episodes of higher inflation

Example: equities

Inflation-sensitive

Positive real returns over the long term

Some degree of protection in moderate to high inflation scenarios

Example: commodities

Inflation-matching

Direct match of inflation outcome over short to medium term

May not offer positive longterm real returns

Examples: inflation-linked bonds, derivatives

⁵ Pro-cyclical inflation is driven by strong economic growth leading to higher wage rates and higher commodity prices. Countercyclical inflation occurs when economic growth is low or negative while inflation remains high; in other words, stagflation. Equities typically perform well in the former scenario but not in the latter.

Inflation-sensitive assets, such as commodities, including gold, property and infrastructure, also offer a reasonably strong link to cyclical inflation and do less well during countercyclical inflation. Because their cash flows can sometimes be linked to realized inflation (such as rents), they can offer a more direct, if imperfect, link to inflation. The impact of rising rates on the asset's capital value often offsets this inflation.

Some assets under this category that offer income (property, infrastructure) may be suitable for long-term investors who target income that grows with inflation but who are able to look beyond short-term inflation fluctuations and expectations. However, if these assets are leveraged (that is, debt-financed, as some real estate and infrastructure investments are), the impact of inflation surprises may lead to a fall in capital value. Higher interest rates on the debt may offset the higher value of cash flows from increased rents.

Finally, **inflation-matching assets**, such as index-linked bonds⁶ or inflation derivatives, provide a direct link between short- and medium-term inflation. These assets offer the best protection against any type of inflation surprise. However, long-term real returns are likely to be very low, if not negative, and are thus more of an insurance instrument than a means of long-term capital appreciation. Such assets are appropriate for liability-driven investors. These asset classes are also likely to provide insurance against a stagflationary scenario, when we would expect most other assets to do poorly.

Higher inflation is just one of many scenarios. It may be accompanied by a high- or low-growth economy — and we should not discount the failure of policymakers to stimulate inflation. A robust portfolio should do reasonably well under a number of different scenarios, rather than exceedingly well under just one.

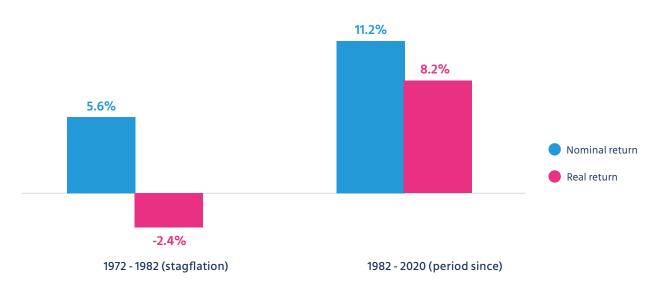


Figure 3. US equity returns in different inflation regimes

Source: Thomson Reuters Datastream, US Bureau of Labor Statistics, Mercer analysis as of June 2020.

⁶ In the case of inflation-linked bonds, an increase in nominal rates might offset the increase in inflation expectations such that the value of the bond might not move even if inflation expectations have. If the nominal rate increases in excess of inflation expectations, this would lead to increased real rates and thus a capital loss. Of course, if the investor holds the bond to maturity, temporary fluctuations in the valuation will not matter, and the investor will be compensated for inflation via higher coupon rates. Alternatively, nominal bond futures of the same remaining duration as the index-linked bond could be shorted. This would offset the duration exposure, making the index-linked bond a pure play on inflation.

Unusual times have widened the range of outcomes

The world carries more uncertainty amid what could become the worst setback to economic growth since the 1930s, and the spread of possible economic outcomes has widened considerably.

The probability of inflation being materially above target for an extended period within the next decade has risen in most major economies.

The risk is greater for governments with limited borrowing capacity, as the spending required to support economic activity may not be sustainable, causing much higher inflation where markets expect debt monetization. However, debt monetization can still happen in countries assumed to have greater borrowing capacity.

This is not a view implied by market prices, though, as can be seen in Figure 4. Prior to the COVID-19 crisis, inflation implied by the prices of inflation-linked bonds ("inflation breakevens") was reasonably close to central bank targets for the US and UK⁷ but below target in the eurozone. Following COVID-19, inflation breakevens have fallen well below central bank targets for the US and eurozone and remain around target for the UK.

Even if lower inflation or deflation is likely over the next year, we do not believe inflation will remain low over longer periods. Counterintuitively, deflation risks in the short term generate inflation risks in the longer term. Central banks are well-motivated and well-equipped to stimulate inflation and will do whatever they can to avoid deflation, because the economic risks are asymmetric. As implied by the adage of central banks not taking away the stimulus-filled "punch bowl" when they should, there is a risk that inflation will exceed policy targets.

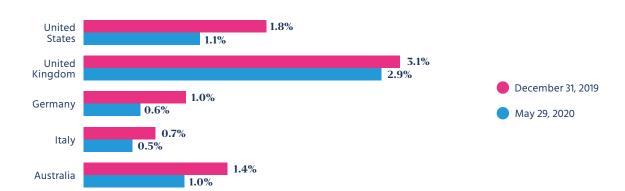


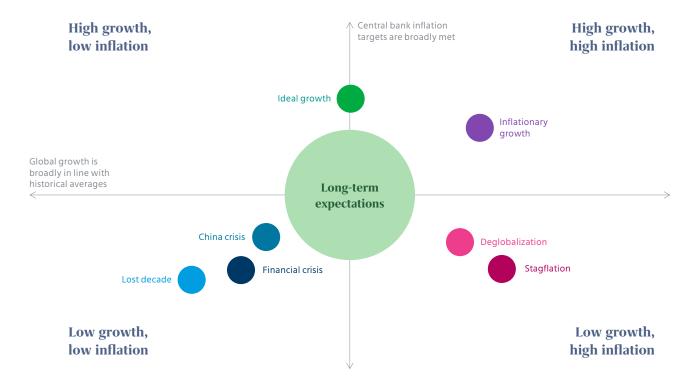
Figure 4. Implied 10-year inflation breakevens for selected countries

Source: Bloomberg, Mercer analysis as of the end of May 2020.

⁷ In the UK, inflation-linked bonds are based on a different inflation measure from the Bank of England's target. The measure used for bonds tends to be higher by 0.7%–0.9%. Deducting this amount from the above figures shows that UK inflation-linked bonds also price inflation to be around the Bank of England's target.

What are the scenarios for this decade?

Figure 5. Scenarios



As shown in Figure 5, the implications for assets differ significantly with each scenario. Since COVID-19, the likelihood of all scenarios has increased due to greater uncertainty. We are particularly concerned about the destructive impact of higher-inflation scenarios, to which we think many portfolios may be vulnerable. But the low-inflation scenarios should not be completely dismissed.

High growth with low-to-moderate⁸ **inflation** is the "Goldilocks" scenario, although it seems least likely to materialize, since a smooth return to pre-COVID-19 conditions anytime soon is doubtful.

High growth with high inflation is becoming a more likely scenario given policymakers' willingness to pursue previous growth levels even at the risk of higher inflation. Many policymakers will view this outcome as a success if inflation does not stay elevated for long, since economic hardships are likely to be less severe and shorter in duration.

Low growth, high inflation is the most worrying scenario from an investment perspective and has become more likely. Inflation might materialize without stimulating growth, particularly if debt is monetized but real production is not increased. If deglobalization takes hold or the regulatory burden for business increases, this environment also becomes more likely.

⁸ We define moderate inflation as within a range of between 1% and 5% and high inflation as anything above 5%.

Low-growth, low-to-moderate inflation scenarios, of varying severity, triggered by further shocks to the system, also look more likely in the wake of the pandemic. If policymakers are unable to stimulate higher growth or inflation, or if we see further shocks to the economy, economic growth may not recover for an extended period, creating a financially lost decade. Doubts about the sustainability of accumulated debt in parts of the eurozone and Japan may hint at how this environment could manifest.

What seems at first glance to offer protection only really protects under specific circumstances, leaving a portfolio exposed if things turn out differently (see Figure 6). However, certain assets, such as gold and inflation-linked bonds, which look unappealing in benign growth or inflation environments, are well-placed to deliver returns when other assets disappoint. These assets are therefore highly valuable from a diversification perspective. And in an era of heightened uncertainty, that diversification potential should be even more highly prized.

Figure 6. Asset returns by economic environment —over the medium term

Macroeconomic environment	High growth, moderate inflation	High growth, high inflation	Low growth, moderate inflation	Low growth, high inflation
Qualitative scenarios	ldeal growth	Inflationary growth	Lost decade	Deglobalization, stagflation
Asset class — expected performance				
Equities				
Real assets				
Commodities				
Sovereigns and investment- grade credit				
Inflation-linked bonds				
Gold				



Investors should prepare for the most destructive scenarios

It is clear that there is no one-size-fits-all approach to protect against inflation. Much of this will depend on which scenario ultimately materializes, as well as on the investor's level of conviction.

Although it is not our base case, we believe sustained higher single-digit inflation over the coming decade is more likely than a continuation of the low inflation seen over the previous 10 years. On the growth side, a resolute policy response and a much stronger financial system than we have seen in the wake of the GFC make a swift return to growth plausible. However, decreasing trust between countries (US/China, countries within the EU) could impede further policy responses or even lead to new waves of deglobalization/ regionalization and nationalism. Growing resistance to these measures by citizens who see lockdowns as unconstitutional and economically destructive could lead to increased political polarization. The GFC was followed by the European debt crisis, various protest movements and trade wars. While none of these

events completely derailed growth, neither were they conducive to growth. In the worst case, such trends could be the catalyst for a low-growth — if not lost — decade.

Within the portfolios we manage, Mercer is actively seeking to increase protection against inflation through modest tilts toward index-linked bonds (while managing the aforementioned duration risk) and gold. Mercer is making these allocations to protect against a low-growth, high-inflation scenario in all but our portfolios with the highest expected returns. At the same time, we are maintaining our allocation to real assets, helping to ensure we will be well-positioned for inflation scenarios that come with higher growth.

In the absence of strong conviction about how inflation will play out, we recommend the above approach to build some protection against the most destructive scenarios.



⁹ For more information on gold, please refer to our paper <u>published last year</u> and <u>the recent update</u>.

Important notices

References to Mercer shall be construed to include Mercer LLC and/or its associated companies.

© 2020 Mercer LLC. All rights reserved.

This contains confidential and proprietary information of Mercer and is intended for the exclusive use of the parties to whom it was provided by Mercer. Its content may not be modified, sold or otherwise provided, in whole or in part, to any other person or entity without Mercer's prior written permission.

Mercer does not provide tax or legal advice. You should contact your tax advisor, accountant and/or attorney before making any decisions with tax or legal implications.

This does not constitute an offer to purchase or sell any securities.

The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed.

For Mercer's conflict of interest disclosures, contact your Mercer representative or see http://www.mercer.com/conflictsofinterest.

This does not contain investment advice relating to your particular circumstances. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances. Mercer provides recommendations based on the particular client's circumstances, investment objectives and needs. As such, investment results will vary and actual results may differ materially.

Past performance is no guarantee of future results. The value of investments can go down as well as up, and you may not get back the amount you have invested. Investments denominated in a foreign currency will fluctuate with the value of the currency. Certain investments, such as securities issued by small capitalization, foreign and emerging market issuers, real property and illiquid, leveraged or high-yield funds, carry additional risks that should be considered before choosing an investment manager or making an investment decision.

Information contained herein may have been obtained from a range of third-party sources. Although the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in the data supplied by any third party.

Not all services mentioned are available in all jurisdictions. Please contact your Mercer representative for more information.

Certain regulated services in Europe are provided by Mercer Global Investments Europe Limited, Mercer (Ireland) Limited and Mercer Limited. Mercer Global Investments Europe Limited and Mercer (Ireland) Limited are regulated by the Central Bank of Ireland. Mercer Limited is authorized and regulated by the Financial Conduct Authority. Registered in England and Wales No. 984275. Registered Office: 1 Tower Place West, Tower Place, London EC3R 5BU.

Investment management and advisory services for US clients are provided by Mercer Investments LLC (Mercer Investments). Mercer Investments LLC is registered to do business as "Mercer Investment Advisers LLC" in the following states: Arizona, California, Florida, Illinois, Kentucky, New Jersey, North Carolina, Oklahoma, Pennsylvania, Texas and West Virginia; as "Mercer Investments LLC (Delaware)" in Georgia; as "Mercer Investments LLC of Delaware" in Louisiana; and "Mercer Investments LLC, a limited liability company of Delaware" in Oregon. Mercer Investments is a federally registered investment adviser under the Investment Advisers Act of 1940, as amended. Registration as an investment adviser does not imply a certain level of skill or training. The oral and written communications of an adviser provide you with information about which you determine to hire or retain an adviser. Mercer Investments' Form ADV Parts 2A and 2B can be obtained by written request directed to: Compliance Department, Mercer Investments, 99 High Street, Boston, MA 02110.

Investment management services for Canadian investors are provided by Mercer Global Investments Canada Limited. Investment consulting services for Canadian investors are provided by Mercer (Canada) Limited.

