October 2020

Fidelity

White Paper

The inflation puzzle and how to tackle it

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Fidelity INTERNATIONAL

Overview

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President Harry Truman famously asked to be sent a one-handed economist, as his advisers always began by saying "On the one hand, this..." and "on the other hand, that". As the president tasked with reconfiguring the American economy after World War II, he certainly faced tough choices. Attempts to lift price controls, for example, only led to rampant inflation and made him unpopular.

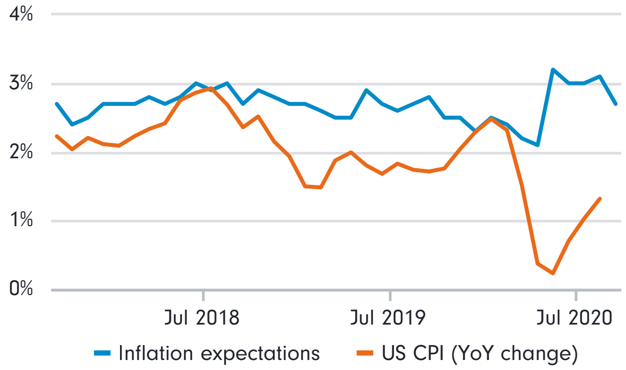
But sometimes considering opposing views can help us understand how to prepare for more than one outcome. In this paper, we look at why, despite the economic destruction wrought by Covid-19, inflation expectations have been moving higher and what risks this could present for bond markets.

We then examine where future prices might be headed, given the powerful inflationary and disinflationary forces currently at work. We set out both the case for inflation and the case for further disinflation and then - because markets are currently more exposed to a return of inflation than a continuation of the status quo - consider which asset classes might offer protection from any loss in real value when inflation does emerge.

Why all the fuss about inflation?

It is not much of a surprise that inflation expectations have risen in line with greater economic activity as Covid-related restrictions have been lifted. They have also responded to some supply chain disruption, e.g. in the food sector. Asset prices, meanwhile, have been supported by vast monetary and fiscal stimulus pumped into economies to prevent mass unemployment, and may push prices higher in other areas such as housing.

Chart 1: Inflation expectations have risen



University of Michigan Consumer Sentiment Survey - median 1 year inflation expectaions, US CPI, all urban, all items. **Source:** Refinitiv, Fidelity International, September 2020.

Moreover, the Federal Reserve recently announced that it would not raise interest rates until inflation had run above the 2 per cent target for some time and the US economy had reached full employment. Given this explicit statement, it is reasonable to expect higher levels of inflation at some point. But why all the fuss about it now?

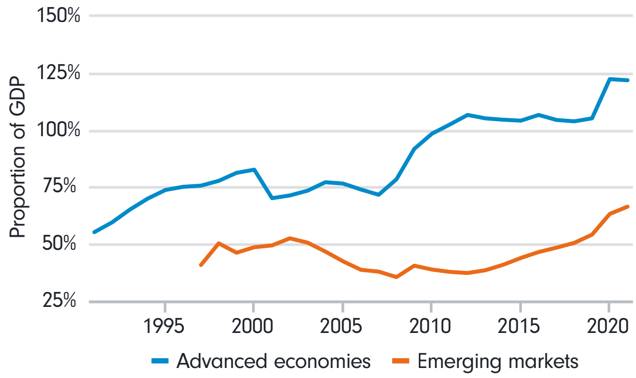
The reason is that, while this low-rate environment should be a positive for markets, and bond markets have generally stabilised, assets are highly sensitive to even a hint of inflation because yields are so low.

Price volatility from de-globalisation or asset price inflation feeding into consumer prices could swiftly send inflation expectations higher at a time when interest rates are set to remain near zero and real yields are negative. As a result, investors would require higher nominal bond yields to compensate for the erosion of value. Furthermore, if economic growth gathers steam, both real yields and inflation expectations could rise, again leading to higher bond yields.

Economies were already suffering from debt-driven disinflation before the pandemic as ever larger borrowing following the 2008 global financial crisis (GFC) required ever greater servicing. Now debt is surging again as governments and companies struggle to deal with the fallout from Covid. This will increase the burden on borrowers of servicing the debt, thereby making it harder for central banks to lift interest rates to curb inflation if it were to emerge.

Unfortunately, this need to keep rates low could prolong the existence of so-called 'zombie' companies. These earn barely enough to cover interest payments, let alone invest in growth, making them disinflationary. But if the pandemic cannot be kept at bay, it could eliminate more zombies than expected, creating inflationary pressures as sectors consolidate and new companies emerge.

Chart 2: Covid-19 stimulus pushes government debt up again



2020-21 are estimates. **Source:** IFS, October 2020.

Any of these factors could increase the risk of a sharp rise in bond yields which, if left unaddressed, could trigger a wave of defaults and choke off demand. We expect that the Fed and other central banks would step in and push yields back down with yet more liquidity and perhaps yield curve control (i.e. buying an unlimited amount of bonds of a particular maturity to keep yields below a predetermined level), but they might wait longer to do so than many expect. Inflation is, after all, helpful in reducing the real value of debt. Moreover, at some point, the Fed will want to let yields rise gently to help the domestic banking system.

For now, inflation remains below the 2 per cent target. Yet markets are sensing something has shifted, making it prudent to prepare for a reflationary environment even while disinflation appears to dominate.

The inflation debate

In tackling this inflation puzzle, it is no longer enough to rely on traditional theories such as the Phillips Curve (an inverse relationship between unemployment and inflation). Instead, we call into service the two-handed economists so decried by President Truman and weigh up both sides of the argument. Here we make both the case for inflation being just around the corner and the case for it being some way off, in order to capture the nuances of each.

Table 1: The two sides of the inflation debate

Scenario	Arguments for	Asset types for this scenario
The return of inflation	▪ Economic recovery underway ▪ Huge monetary and fiscal response ▪ More stimulus expected; austerity is out ▪ De-globalisation and the reshoring of supply chains ▪ Vaccine may be closer than you think	▪ Treasury Inflation-Protected Securities (TIPS) ▪ Equities exposed to commodity prices, such as energy and materials ▪ Value equities ▪ Companies with pricing power ▪ Cyclical sectors ▪ High yield bonds over investment grade ▪ Gold
Continued disinflation	▪ Output gap is still high ▪ Demand is weak ▪ Income expectations are suffering ▪ Higher propensity to save ▪ No certainty on trajectory of virus	▪ Growth equities, including US and technology ▪ Investment grade bonds over high yield ▪ Non-cyclical sectors

On the one hand: The case for the return of inflation

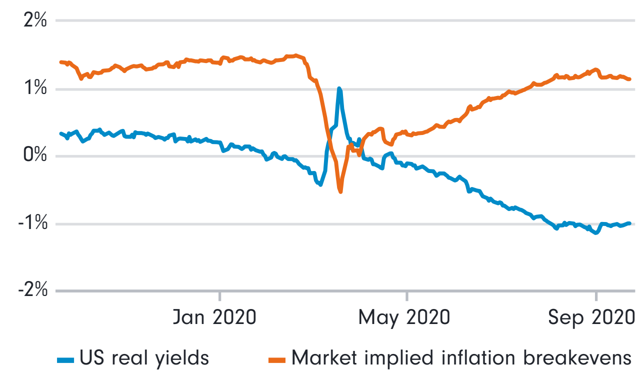
Inflation failed to emerge after the financial crisis, despite a decade of ultra-low rates and widespread quantitative easing (QE) by central banks. But that doesn't mean that it won't do so this time. Back in 2008, QE seemed highly unorthodox - a grand monetary experiment - and many predicted that runaway inflation was the unavoidable consequence.

As the Great Financial Crisis (GFC) gave way to the European sovereign debt crisis, some investors turned to gold as an insurance policy in anticipation of a world of devalued fiat money. Yet inflation remained so low that deflation eventually became a more pressing concern, especially in Europe.

Question marks over the extent of the disinflationary impulse

A decade later, central banks in developed nations are once again dousing economic fires with newly created money. However, recent inflation data has, so far, held up better than expected. It is possible that the shock from the pandemic has been too short to trigger as strong a disinflationary impulse as some had feared, and the initial rebound from Covid has been V-shaped. Even if the pace begins to level off, there are reasons to think growth will continue and inflation could re-emerge.

Chart 3: Inflation data has been positive

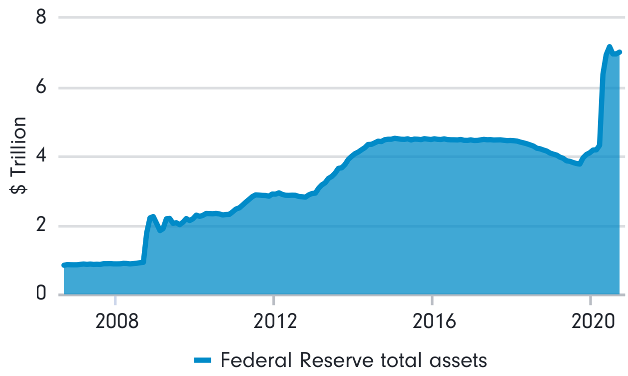


Source: Refinitiv, Fidelity International, September 2020.

Scale of monetary support is massive

The sheer size and speed of monetary support discharged this year, for example, is breathtaking. It dwarfs that seen during the GFC. The Fed's balance sheet has shot up from roughly $4 trillion to $7 trillion and could easily rise further, while the US Treasury has a further $1.5 trillion held at the Fed which could be drawn down to help boost the economy.

Chart 4: Fed balance sheet shoots upwards



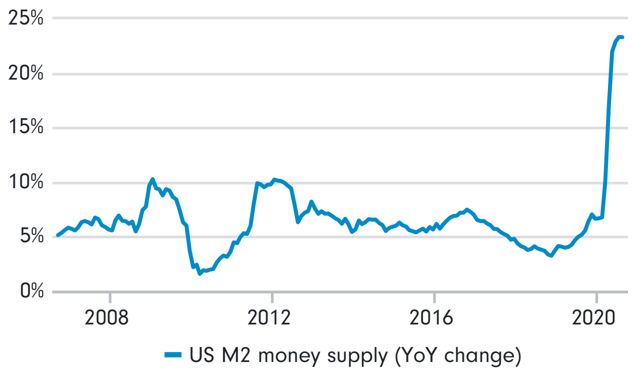
Source: Refinitiv, September 2020.

Not only is the size of the monetary stimulus conducive to an increase in inflationary pressure, but also the mechanism by which it is delivered. Banks, for example, are much more able than they were during the financial crisis to lend to companies and individuals.

> While a high volume of bad loans could yet be an aftershock of the current pandemic, banks have already set aside large provisions to cope.

Back then, lenders urgently needed to repair their balance sheets as numerous loans turned sour, and shore up their reserves. As a result, they deposited money with the Fed almost as fast as the Fed pushed money into the system, keeping money supply growth contained. While a high volume of bad loans could yet be an aftershock of the current pandemic, banks have already set aside large provisions to cope. In fact, the size and speed of monetary stimulus by the Fed this year has caused the money supply to increase dramatically.

Chart 5: Fed response to pandemic causes money supply to jump



Source: Refinitiv, September 2020.

The velocity of money has yet to pick up, but had anyway been in structural decline for years, so may take time to reverse. Asset prices have already risen in response to monetary action, and it is only a matter of time before goods prices begin to rise too. If the mechanism of transmission to the real economy is too slow, central banks and governments seem willing to find other ways to get the funds to where they are needed, for example, by providing further liquidity to small and medium sized firms through the Paycheck Protection Program (PPP).

Austerity is out, fiscal largesse is in

Along with monetary expansion, governments around the world have also pumped a hefty dose of fiscal stimulus into their economies, with more likely to follow - including in the US once the election is over. Fiscal stimulus (especially in areas such as infrastructure) is a more immediate way to spur economic activity than monetary expansion, and working in tandem with monetary policy, has the potential to be a potent inflationary force. And again, this meaningfully breaks from the aftermath of the financial crisis, when fiscal prudence, even austerity, was the dominant policy objective.

Rates are anchored near zero

Perhaps the most crucial, but least foreseeable, argument for inflation is that central banks have embraced a new approach to managing monetary policy. What happens when inflation does rise again is unknown after the Fed, in conjunction with other central banks, committed to keeping rates near zero for several years and made it clear that they will accept above-target inflation for some time, rather than act pre-emptively to keep it below 2 per cent. So central banks want to see some inflation in the system, as it is much harder for them to tackle the ill effects of disinflation or deflation.

De-globalisation and domestic resilience

Another key question is how far the rollback of globalisation and the reshoring of production and supply chains could boost short-term inflation and sustain it over an extended period. Some supply chain adjustment is being driven by logistics weaknesses laid bare by the pandemic, but much of it was already underway, pre-Covid, due to the ramp-up in trade tensions between the US and China. Whoever wins the US election is expected to persist with anti-China rhetoric, while China is attempting to increase domestic resilience by bringing important parts of the supply chain closer to home.

A weaker dollar is inflationary in the US, especially for commodities such as oil, which are denominated in dollars.

Dollar weakness is inflationary

Another point to consider is the effect of the declining value of the US dollar. After spiking in the scramble for safety as the pandemic hit, the dollar has lost value since May after it became clear that the Fed would keep rates low for an extended period of time. A weaker dollar is inflationary in the US, especially for commodities such as oil, which are denominated in dollars.

Vaccine could be the inflationary wildcard

Finally, a vaccine could be an inflationary wildcard. Economic activity and business formation has already picked up as economies reopened. If an effective vaccine does arrive soon and is quickly dispensed around the world, economic activity could jolt back to near pre-Covid levels.

Despite all the monetary and fiscal support, a significant amount of capacity has been destroyed due to the pandemic, so there might not be as much slack as thought on the supply side when demand recovers, especially if it recovers sharply. This could squeeze up prices across a range of sectors such as airlines, hospitality and entertainment.

Inflation may return sooner than consensus expects

While the pandemic has not gone away, even in countries with still high case levels, economic activity is returning. Assuming that growth remains stable, fiscal stimulus continues, central banks keep rates on hold and inject more liquidity into markets as needed, then conditions are highly conducive to a return of inflation - at least to the 2 per cent target. With so much money sloshing around the system, inflation could bounce back much sooner than consensus expects - and investors need to be ready.

If a vaccine comes sooner than expected, prices could rise in sectors such as airlines. Picture shows check-in desks with plastic screens. (Photo by SOPA Images / Contributor Images via Getty Images)

On the other hand: The case for continued disinflation

Inflation will emerge in due course, but it's unlikely to cause major problems for central banks in the immediate term. Yes, monetary and fiscal efforts to tackle the fallout from the pandemic have been unprecedented, but so has the economic impact of shutting down global activity, and not fully reopening it.

The Fed and other central banks have recognised the disinflationary impact of this and switched policy away from inflation targeting to aiming for a persistent average inflation level - highlighting concerns around current price levels and the limits of QE in reviving growth and inflation.

Recent disinflationary pressures could therefore persist into the near future, even if there is a mechanical bounce from the year-on-year base effect in the spring. Meanwhile, Japan provides a sobering example of how even drastic policy measures designed to 'reboot' inflation can fall flat.

Mind the output gap

One of the most visible disinflationary forces at work is the sizeable output gap around the world, suggesting significant spare capacity in the global economy. In China, the gap between demand and supply is around 7.5 per cent. This is close to historical highs and represents an imbalance that could perpetuate disinflation. Meanwhile, China continues to 'export deflation' as an export-led economy, even as it makes its structural transition to a consumption-led economy.

The US economy's output gap is similar at around 8 per cent (close to levels seen during the Great Depression), indicating too much excess supply for businesses to be able to pass on sustainable price increases to consumers, without weakening demand. If job retention schemes end or are revised to be less generous, the output gap will only increase.

Weak demand picture, with low income expectations

The US demand picture also looks weak, reinforcing the idea that excess supply will continue for some time. Surveys of income expectations in the US have collapsed to their weakest levels since October 2011, raising questions as to how consumers will be able to afford any price increases. Expected income could therefore be a bigger constraint on growth and inflation than the cost of capital.

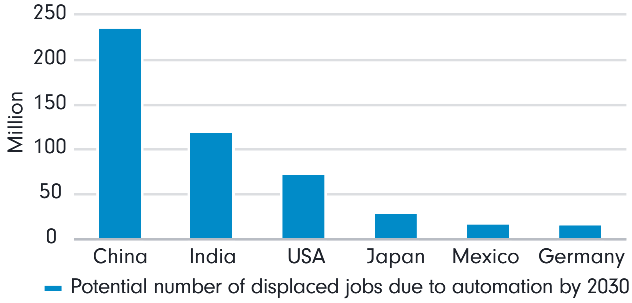
The housing market - one of the biggest components of inflation - is also showing signs of disinflation and could be a further indication of weaker demand. US median house prices have begun to decrease in recent months, indicating a deflationary direction despite a surge in new home sales; and rents are also under pressure. Data has been similar for the Chinese housing market, where weaker demand also tends to coincide with a weaker economic environment.

Saving not spending

Consumption patterns in the US also point to disinflation. Evidence suggests that consumers are using their government-funded income support to reduce personal debt rather than spend. Despite the money supply in the US running at a 23-25 per cent high, the velocity of money (the rate at which money is exchanged for goods and services in a period of time) has collapsed, with households using stimulus cheques to pay down credit card debt.

US consumer credit card debt has contracted in five out of the past six months and credit card balances have reduced by an all-time high of 20 per cent annualised. Meanwhile, personal savings rates remain very elevated at approximately 2.5 times pre-Covid levels in the US, and are rising across the world. It's hard to see rising inflation in an environment in which fewer people feel able to borrow or take on risk, and overall purchasing power is declining. Finally, the longer-term disinflationary trend created by technology appears only to be speeding up, as product cycles accelerate, more business is done digitally and more jobs are automated.

Chart 6: Automation could eliminate millions of jobs by 2030



Source: McKinsey, 2017.

Price levels around the world also point to deflationary forces. Indeed, inflation remains low - even occasionally negative - in Europe, while both Chinese and emerging market inflation levels are at all-time lows. Following the oil shock earlier this year, energy prices remain range bound. Even in Asia, the region leading the way in terms of recovery, employment data has so far not been as strong as might be expected in 2020. This suggests inflation could be muted for some time.

Consumer price inflation is not the inevitable consequence of monetary and fiscal largesse

It's reasonable to assume that the liquidity created by central bank credit growth, increases in global fiscal spending, and the Fed's new inflation averaging policy could lead to some inflation. In practice, however, the link between credit growth and CPI inflation appears to have broken down in the early 1980s - across developed markets, and even in China. This can be seen in the level of M2 growth versus CPI in the US and Europe over the last 20 years versus the last 40 years. Despite high M2 growth over the last decade in particular, CPI has remained quite low relative to its history.

Moreover, given the nature of the pandemic, certain sectors may be effectively closed for an extended period by social distancing measures, and unlikely to borrow to invest in growth. Winners from the pandemic may invest for growth, but again price rises may be capped by income limitations.

So far, inflation has mostly manifested itself in asset prices (financial assets and, to a lesser extent, housing), which has increased inequality. For the real economy, previous bouts of QE have failed to increase inflation meaningfully. This divergence has been even more stark this time around with asset prices rising while the rest of the economy is still wrestling with strong disinflationary forces, otherwise known as the 'K-shaped' recovery. The wider the gap here, the more exposed markets are to a snap back in bond yields.

Japan failed to summon inflation

In many ways, Japan has already attempted what the Fed and European Central Bank are now trying to implement, and failed to stimulate inflation. Japan has previously adjusted its mandate over the years from an inflation goal of 1 per cent, which later went to 2 per cent, and then shifted to a broader commitment to overshoot inflation. The Japanese have also engaged in enormous fiscal stimulus every year since the 1980s, implemented negative rates since 2016, purchased corporate bonds since 2009, and equities since 2010, and even utilised yield curve control since 2016.

Looking at how Abenomics has fared since 2012, there are two key conclusions. First, Japan's equity market has outperformed both emerging markets and Europe since 2012, lagging only behind the US. So in terms of asset inflation, the policies have worked. However, the gap between Japan's central bank inflation target and realised inflation has remained stubbornly wide. This may happen to the Fed too, but the difference this time is that it has joined the other central banks in explicitly targeting low or negative real yields as a policy (whereas for Japan this was a symptom).

Disinflation likely to prevail for now

There are some inflationary forces out there. The trade war between the US and China and de-globalisation in general should, in theory, raise prices, though there is little evidence of this so far. One area to monitor in this regard would be supply chains (in strategic areas such as food and healthcare), looking for evidence of persistent price increases resulting from these tensions. Another would be the extent to which the next US administration takes up the fiscal baton from monetary policy and implements a large, pro-growth fiscal stimulus.

For now, however, the harmful economic impact of rolling lockdowns, some permanent damage to labour markets, weak demand and income expectations, the lack of certainty around a vaccine and the higher propensity to save all point to an overwhelmingly disinflationary environment, despite the immense policy response. Longer-term, inflation should return to pre-Covid levels, but there appears to be little impetus for runaway inflation at this point, short of a significant policy mistake. If growth falters or fiscal stimulus wanes, even getting to and sustaining inflation at 2 per cent could take years.

How to position for inflation

Whichever side of the inflation argument you find most persuasive, one thing is certain: the global inflation backdrop will continue to evolve, and the key question is how markets will respond. Rising yields as a result of central bank policy or inflation re-emerging remain a significant risk, as sharp moves could cause broader market dislocation.

We therefore choose one of the economist's 'hands' and offer some thoughts below on how to position for inflation in case it suddenly reappears.

In general, those anticipating higher yields will seek to keep duration low (both in terms of fixed income and equity duration) and focus on income. An individual investor's view on inflation however will determine if he or she views any rise in yields as an opportunity to add duration, or a sign that more inflation is on the way and likely to trigger further sell-offs in rate markets.

In this context, we examine the likely reaction to inflation of the following asset classes:

1. Government bonds and cash

Inflation erodes the value of fixed coupons meaning government bonds and cash can lose you money in real terms in a reflationary environment. They are therefore no longer 'safe' assets in real terms, and typically sell off as investors rotate into other areas. That said, any ensuing rise in yields is likely to be capped by Fed policy.

An individual investor's view on inflation however will determine if he or she views any rise in yields as an opportunity to add duration, or a sign that more inflation is on the way and likely to trigger further sell-offs in rate markets.

One option is to consider treasuries with inflation protection built into them, known as TIPs. These securities are indexed to an inflationary gauge such as retail prices, meaning the principal value rises in line with inflation and

Gold tends to do well when inflation expectations rise and real yields fall. (Photo by Antoinette Norcia / Contributor the interest payment varies with the adjusted principal value of the bond. They tend to rise in value in line with inflation expectations, so are worth having in a diversified portfolio as a hedge against future price rises. Index-linkers currently offer value, in our view, even if it takes time for inflation to emerge.

2. Equities

Equities can usually tolerate a certain amount of inflation. Earnings should grow in line with inflation as corporates pass on higher prices. Ideally, investors should own companies and sectors with strong pricing power and high barriers to entry that can pass on price rises to customers. Companies that are exposed to commodity prices, such as materials and energy, may also do well if a commodity rebound forms part of the reflationary backdrop. Value stocks tend to do better than growth stocks in a reflationary environment, while a low inflation, low yield environment tends to favour growth.

3. Credit

High yield bonds tend to do better than investment grade when inflation emerges, especially where it is accompanied by higher growth expectations. In such an environment, it is worth keeping duration short and focusing on areas of solid growth.

4. Commodities and gold

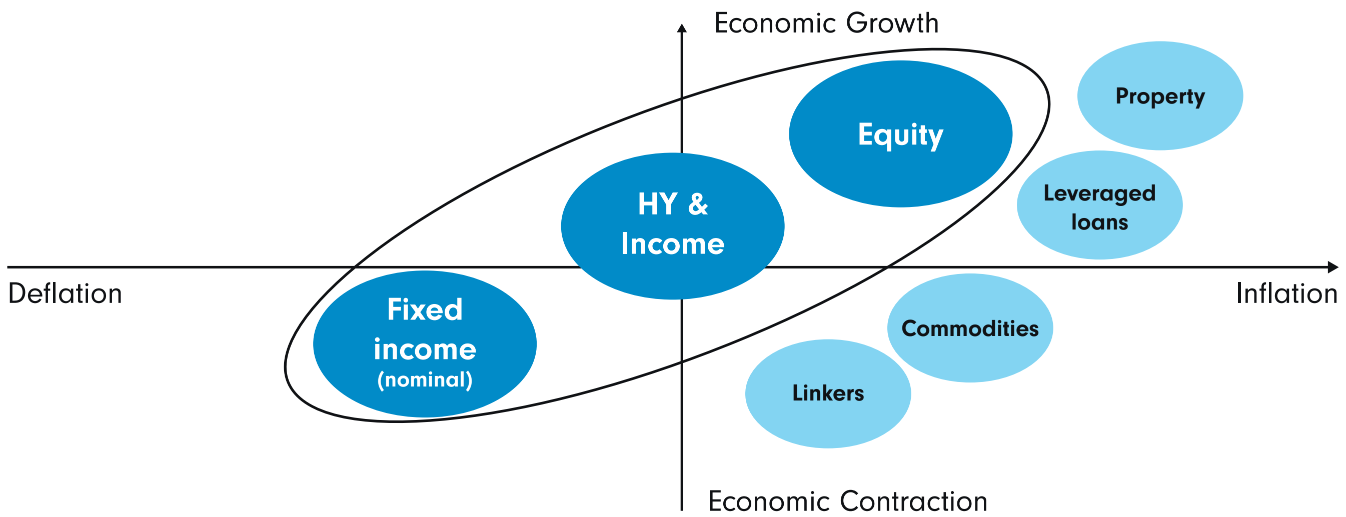
Commodities are a real asset and therefore typically outperform when prices rise. Oil in particular has tended to be a good inflation hedge. Gold tends to do well when inflation expectations rise and real yields fall, which is happening again this time. However, as investors start to price in expected future rate hikes, real rates start to rise and investors turn to other more economically sensitive commodities like oil and industrial metals.

5. Alternatives

Alternatives are a very heterogeneous asset class, but some will be inflation-protecting. Real estate is often viewed as a way to protect against inflation, but typically correlates more strongly with rising economic growth. This time, the sector is experiencing an acceleration in structural trends which may change pricing dynamics in the subsectors, so it is important to consider how sustainable rental income is and take an active approach.

The chart below provides a good summary of which asset classes perform during inflationary and deflationary periods.

Chart 7: Different asset classes can be used to hedge different types of inflation/deflation



Source: Fidelity International 2020.

Important Information