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Should investors fear
the inflation bogeyman?

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With ultra-low interest rates a key underpinning of asset prices, what a combination of super easy monetary policy (including quantitative easing or QE) and large government deficits mean for inflation is top of mind for many investors.

This is not a straightforward question to answer. Current monetary policy settings are unprecedented. Inflation has surprised on the downside over the past decade despite heavy stimulus (including record low interest rates and quantitative easing or QE). And a few years ago a recently retired Fed governor admitted the US Federal Reserve (the most influential financial institution in the world) doesn't have a reliable theory on inflation.

We acknowledge, therefore, the outlook is uncertain including the significant (but yet unknown) influence future policymakers will have. Outlined below is our current thinking, but we live in unique times and the outlook remains fluid particularly as we look a number of years out.

In summary:

1. We don't think investors should worry about inflation near-term.

- QE has allowed governments to inject money directly into the economy (and therefore the money supply). But, an increase in the money supply alone is not sufficient to drive inflation.
- Inflation is typically driven by higher costs for businesses, or rising demand for goods and services that exceeds an economy's capacity to supply.
- Over the past decade, economies have struggled with low growth and low inflation despite stimulus from ultra-low interest rates, QE and fiscal deficits. These measures failed to fully offset disinflationary/deflationary factors such as demographics, high debt, wealth inequality, technology, and low inflation expectations, which, have collectively dampened demand growth and reduced costs.
- COVID-19 has added to disinflationary pressures by swelling excess capacity in economies, most notably through higher unemployment.
- Greater government spending (fiscal stimulus) is needed to (at least partially) offset declines in the private sector and counter the disinflationary pressures above.
- We see little risk of broad-based inflation in the short-term. We could see upward price pressures from factors such as additional COVID-19 related costs and/or global and domestic supply chain constraints. We don't expect central banks to view these as "inflation" – inflation is broad-based and continuous, not specific and short-term.

2. The longer-term inflation outlook is more uncertain.

- Inflation risks are higher over the medium to longer-term.
- Expansionary monetary (QE, low interest rates) and fiscal (government deficits) policies could lift inflation if they boost demand to a level that exceeds the economy's capacity to supply.
- Outcomes will be significantly influenced by governments' willingness (or not) to maintain sizeable fiscal deficits. The higher the deficits, the greater the inflation risk.
- Rising populism in global politics is consistent with larger government deficits, but recent stalemates on new stimulus packages in the US and Europe highlight the uncertainty in any political decision-making.
- Populism could also drive greater wealth and income redistribution which tends to be inflationary by allocating money to lower income earners who have a higher propensity to spend.
- Other factors such as de-globalisation, increased trade barriers, greater regulation, pricing on greenhouse gas emissions, and firmer commodity prices may also add cost-push inflation pressures.

3. Central banks will not hike interest rates at the first signs of inflation.

- If higher inflation does emerge we expect policymakers' initial response will be to let inflation exceed central bank targets and keep interest rates low (meaning even lower real interest rates). The US Federal Reserve has already announced an "average inflation targeting" regime targeting 2% average inflation over time, and that, given it has tracked below target for more than a decade, a period above target would be accepted.
- Higher inflation would assist with central banks' full employment mandate by (1) reducing the real value of elevated debt, and (2) more easily lowering real interest rates if required.

4. Options for inflation protection in portfolios include:

- Well-positioned companies with pricing power, infrastructure, commodities and commodity producers, natural resources such as farmland, precious metals, industrial metals, real estate, and inflation-linked bonds.

5. Fiscal deficits should help support asset prices.

- All-else-equal, fiscal deficits transfer wealth from government to the private sector. A large portion of this wealth finds its way to savers and, therefore, into demand for financial and real assets. Ongoing fiscal deficits would provide a support for asset prices.

Quantitative easing and the money supply

As a starter, it's helpful to understand the influence of QE on the money supply.

The money supply is generally defined as the sum of all notes and coins in circulation, plus (the majority) money sitting in bank accounts.

Some of the money supply is created by central banks, but the vast majority is created by commercial banks' lending into the economy.

The table below highlights how an initial deposit expands the money supply as it lent, re-deposited, and re-lent in and out of banks. As the table highlights, the lower the banks' reserve ratio, the larger (and vice versa) the "money multiplier" – the impact of new money on the money supply.

The money supply is largely determined by commercial bank lending

MONEY MULTIPLIER – FROM AN INITIAL DEPOSIT OF $100

	Deposit (incl. in money supply)	Bank lending	Bank reserves (@ 10%)	Total deposits	Deposit (incl. in money supply)	Bank lending	Bank reserves (@ 5%)	Total deposits
Stage 1	100	90	10	**100**	100	95	5	**100**
Stage 2	90	81	9	**190**	95	90	5	**195**
Stage 3	81	73	8	**271**	90	86	5	**285**
Stage 4	73	66	7	**344**	86	81	4	**371**
Stage 5	66	59	7	**410**	81	77	4	**452**
Stage 6	59	53	6	**469**	77	74	4	**530**
Stage 7	53	48	5	**522**	74	70	4	**603**
Stage 8	48	43	5	**570**	70	66	3	**673**
Stage 9	43	39	4	**613**	66	63	3	**740**
Stage 10	39	35	4	**651**	63	60	3	**803**
After stage 10	**651**	**586**	**65**		**803**	**762**	**40**	

Source: Forsyth Barr analysis

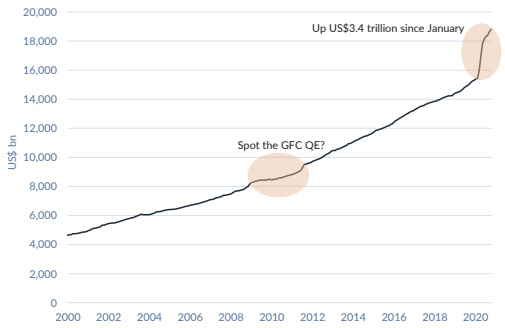
Some people think that when a central bank undertakes QE (prints money) it automatically increases the money supply – that is not correct. It depends on how the new QE money is used.

During the global financial crisis (GFC), the money was largely used to recapitalise banks, increase their reserves, and allow them to de-gear. Looking at the US money supply during the GFC, new money created by QE was broadly offset by banks tightening lending standards (increasing reserves). The money supply did not notably change.

This year is very different. QE has been used to allow governments to spend and inject new money directly into the economy (and therefore into the money supply). Therefore, all-else-equal, there is greater inflation risk in the current QE than was the case during and after the GFC.

Two very different QE experiences

US MONEY SUPPLY



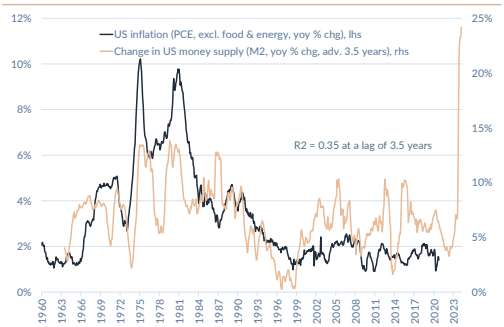
Source: St Louis Federal Reserve, Forsyth Barr analysis

But a larger money supply does not guarantee inflation

Whilst a lift in the money supply does add to inflation risk, it is not sufficient to drive inflation – there is no strong historical correlation between the money supply and inflation. The strongest relationship between the two variables is at a lag of 3 to 3½ years (in the chart below). Just because there is more money in the system doesn't mean people spend it. And if they do spend, it doesn't mean it generates inflation.

The historical relationship between the money supply and inflation is not strong

US: INFLATION VS. CHANGE IN THE MONEY SUPPLY (AT A 3½ YEAR LAG)



Source: St Louis Federal Reserve, Forsyth Barr analysis

What causes inflation?

There are a few broad causes of inflation:

1. **Cost-push inflation:** Due to increased costs, e.g. driven by higher labour or raw material costs.
2. **Demand-pull inflation:** Due to excessive demand for goods and services, e.g. a boom drives demand ahead of an economy's capacity to lift supply.
3. **Structural/built-in inflation:** Driven by inflation expectations. It typically occurs when an economy is already experiencing inflation for another reason, and participants come to expect a continuation of recent trends, e.g. workers expect wage increases, retailers expect price rises.

How could monetary and fiscal policies lift inflation?

Expansionary monetary and fiscal policy could lead to demand-pull inflation if a combination of the following causes excess demand.

1. Demand directly from government spending.
2. Increased private sector spending incentivised by low interest rates.
3. (Longer-term) increased private sector spending funded by the additional wealth created by government spending.

> *To be clear, it is not sufficient that these stimulus measures increase demand for goods and services to be inflationary. They have to increase demand ahead of the economy's capacity to supply.*

Impact of additional government spending

Historically central banks' principal tool for managing the economy and inflation was interest rates. With rates near zero this tool is now largely defunct. Government spending (fiscal policy) will now likely play a greater role in managing the economy.

Today government spending is (partially) offsetting impacts of COVID-19. Most economies are operating below COVID-19 levels with excess capacity (despite huge government intervention).

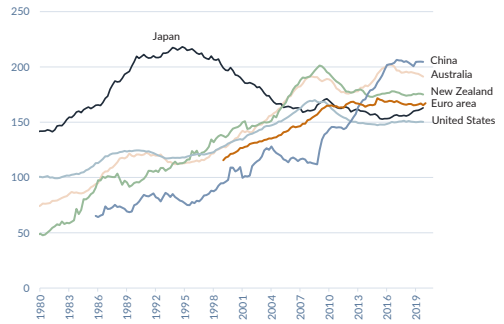
There is undoubtedly a limit where government spending will generate excess demand and therefore inflation. What this limit is is uncertain, but with economies operating below pre COVID-19 levels we are not near it yet.

Impact of low interest rates

Lower interest rates reduce incentives to hold cash and increase incentives to borrow. Pre COVID-19 interest rates were already low and the cost of borrowing very cheap. However, since the GFC in the late 2000s, debt has been flat to down in most developed countries – it appears appetite for more borrowing is limited despite the low cost of borrowing.

A low appetite for debt…

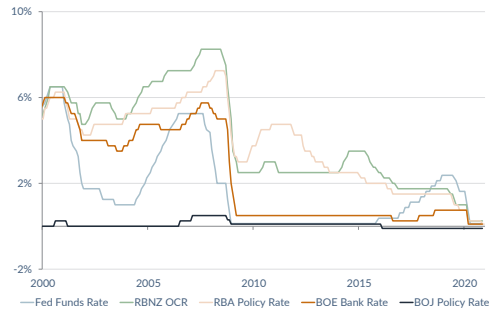
DEBT VS. GDP (%)



Source: Stats NZ, BIS, Forsyth Barr analysis

…despite ultra-low interest rates around the world

CENTRAL BANK CASH RATES



Source: Thompson Reuters, Forsyth Barr analysis

In the US, since COVID-19, the 10-year treasury is down c.90bps to c.0.9%, and 30-year mortgage rates down c.100bps to c.2.7%. In NZ the decline in mortgage rates has been similar. The question is, are these drops sufficient to reignite borrowing and materially lift spending?

Looking at retail sales and a booming housing market, it is tempting to say yes. However, we suspect much of this is driven by pent-up demand, and in the case of housing, tight supply (in both the US and NZ). Additionally (1) the reallocation of spending, for example from leisure/travel to housing-related goods and services, has led to demand exceeding supply in specific sectors, (2) supply chain (manufacturing and logistics) issues, both domestically and globally, are impacting the flow of freight limiting supply and pushing up some businesses' costs, and (3) some businesses are facing additional operating costs due to COVID-19. These, however, are industry specific or one-off factors. Inflation is broad-based and continuous.

Over the medium-term the question is whether a c.100bp drop in interest rates is sufficient to lift spending to a level where it would materially contribute to broad-based inflation?

Impact of greater private sector wealth

Over the longer-term, higher government spending will result in greater private sector wealth. Each individual or entity can choose to either spend or save any additional wealth. Inflation could increase if the additional spending exceeds the economy's ability to supply.

This is not unique to (but is intensified) when governments are running deficits. There is always savings within an economy. At any time accelerated consumption of these savings, if sufficiently large enough, could cause inflation.

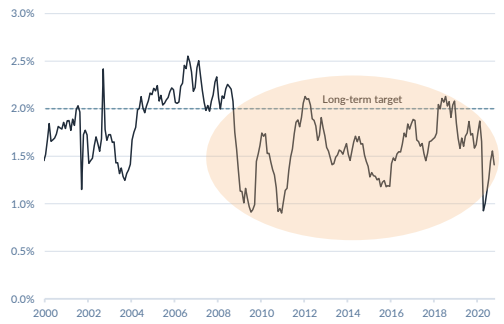
Furthermore, whilst adding wealth to the system will likely translate to some increased spending, the magnitude depends on the private sector's propensity to spend. This propensity to spend is not necessarily stable – for example, it may increase as the effects and uncertainties around COVID-19 and its economic impact reduces.

Disinflationary pressures

Over the past decade, central banks have struggled with low growth and low inflation despite stimulus from ultra-low interest rates, QE and fiscal deficits.

Despite central banks' best efforts, inflation has been below target for over a decade…

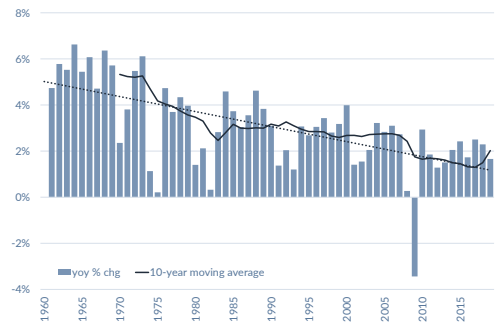
US INFLATION (CORE, EXCLUDING FOOD AND ENERGY)



Source: St Louis Federal Reserve, Forsyth Barr analysis

…and stimulus hasn't prevented sluggish economic growth either

OECD REAL GDP GROWTH



Source: World Bank, Forsyth Barr analysis

These stimulus measures have failed to fully offset disinflationary factors including:

1. **Demographics:** The world's population growth is slowing and the world is ageing, reducing growth in incomes, demand for goods and services, and need for investment.
2. **High debt levels:** Taking on debt pulls forward demand. High debt reduces appetite for further debt, and increases sensitivity to interest rates.
3. **Income inequality:** People with greater wealth have a lower propensity to spend marginal income or wealth. As wealth is injected into the economy, over time, through profits it accrues to the wealthier cohorts, reducing inflationary pressures.
4. **Cost-push deflation:** Technology and globalisation have helped lower production costs of goods. De-globalisation may now add to inflationary pressures. Conversely, productivity gains achieved under COVID-19 may lower costs.
5. **Commodity abundance, particularly oil:** Shale technologies and low interest rates fuelled a rapid increase in the availability of oil and substantial price declines. This could reverse with large reductions in investment capex, including tightening capital availability due to ESG ("environment, social, governance") factors.
6. **Low inflation expectations:** Inflation expectations are framed by experience. Today's consumers and workers are not accustomed to significant price or wage increases.

Furthermore, in the near-term at least, COVID-19 has added to these pressures by expanding excess capacity in economies, most notably through higher unemployment.

What are the inflation risks today?

In the near-term we see the risk of higher inflation as low. We expect disinflationary pressures to largely continue. Furthermore, COVID-19 has freed up capacity in economies. Government spending is required just to offset these factors, and should not test economies' capacity to supply. Fiscal stimulus means interest rates will be higher than they otherwise would have been (most likely deeply negative), but they'll remain very low by historical standards.

Over the longer-term the outlook is more uncertain and inflation risks are higher.

Outcomes will be significantly influenced by governments' willingness (or not) to maintain sizeable fiscal deficits. The higher the deficits, the greater the inflation risk. The rising populism in global politics is consistent with greater government spending, but recent stalemates on new stimulus packages in the US and Europe highlight the uncertainty in any political decision-making.

Populism could also drive greater wealth and income redistribution which tends to be inflationary by allocating money to lower income earners who have a higher propensity to spend.

The strength of the recovery in private sector demand and businesses' willingness to invest (how much new capacity is added) will also influence the risk of inflation. Other factors such as de-globalisation (less outsourcing to low-cost countries), increased trade barriers, greater regulation, pricing on greenhouse gas emissions, and firmer commodity prices (resulting from lesser investment in new supply) may also add cost-push pressures.

How will central banks respond?

If we see higher inflation, policymakers will face choices:

1. **Fiscal tightening:** Spending cuts, tax increases – the most difficult politically, particularly given it would need to target lower income workers, with the highest propensity to spend.
2. **Monetary tightening:** Higher interest rates, quantitative tightening or QT.
3. **Let inflation track above target.**

We expect the initial response will be to let inflation exceed targets. The Fed has already announced an "average inflation targeting" regime targeting 2% average inflation over time, and that given it has tracked below target for more than a decade, a period above target would be accepted.

> *"To prevent [long run inflation expectations below 2%] and the adverse dynamics that could ensue… we will seek to achieve inflation that averages 2% over time … Appropriate monetary policy will likely aim to achieve inflation moderately above 2% for some time."*

Jerome Powell, Chairman of the Federal Reserve, 27 August 2020

In today's integrated global financial system it is hard to stand too far from the crowd. If a country raises rates when others don't it typically boosts the value of that country's currency, and, in turn, negatively impacts its international competitiveness. If key central banks, such as the US Federal Reserve, keep interest rates low we expect others will follow suit.

Higher inflation would also assist with central banks' full employment mandate by (1) reducing the real value of elevated debt, and (2) lowering real interest rates if required (today most central banks would have lower real interest rates if they were not constrained by the zero – or not far below zero – bound).

As an aside, with interest rates at ultra-low levels, we expect fiscal policy will have a greater influence on economies going forward, especially during crises. Government decision-making can be more political and less timely than central banks, meaning greater risk around policymakers' response to crises. Furthermore,

if governments' role in economies grows, the efficiency and quality of fiscal spend will have a greater impact on the long-term performance of economies.

Fiscal deficits are good for asset prices

As discussed above, when a government runs a deficit it results in greater private sector wealth. Each individual or entity chooses to either spend or save this additional wealth. Ultimately, directly or over time as it circulates through the economy and into profits, a substantial portion finds its way to savers. Even if savers only maintain their allocations to risk assets (equities, property) rising private sector wealth should support demand for these assets. Low interest rates are an additional incentive not to hold wealth in cash or other low risk assets.

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