# Can the economies handle "normalised" interest rates?

Currently, there is a big debate about when we might see 2% inflation and low interest rates again.

Looking back at inflation and federal funds rates over the past 70 years, it is not obvious that we will return to the levels we have had since the financial crisis of 2008.

But where are inflation and fed fund rates then heading? We have examined data going back to 1954 to try and gain a better understanding.

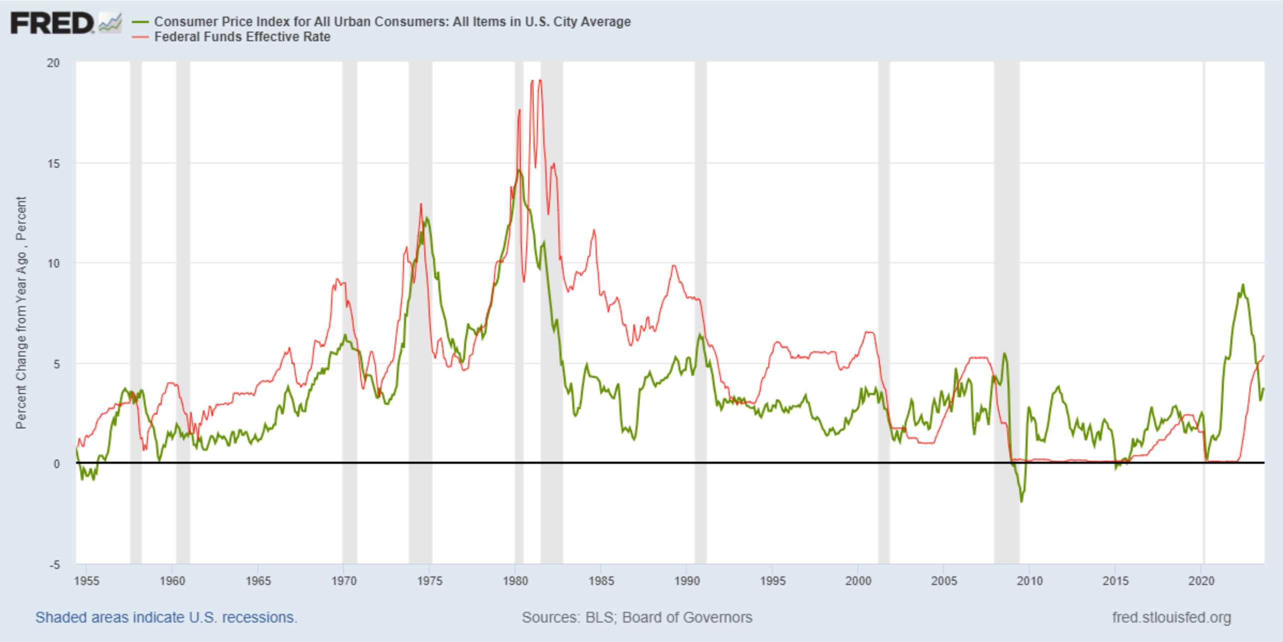
The economic and financial communities are divided as to where inflation is heading next. Some economists are prepared to declare victory already, while others are a lot more sceptical. Yes, inflation has come down, but that could be only a temporary effect of a high base level from last year and, as long as the labour market remains tight, inflation can quickly return to its previously high levels.

Below, we take a closer look at US data (the longest data series available) to establish what could be considered "normal" inflation levels and fed funds rates based on a longer time series and not just the memory of the last 5-10 years.

## What is "normal" for US inflation and the fed funds rate?

Any memory of economic data is typically short among participants in the financial markets. The levels of inflation and fed funds rates after the financial crisis of 2008 seem to have become benchmarks in the minds of many investors.

***Figure 1 Fed funds rate and US consumer inflation year-on-year*** *source St Louis Fed - FRED*




Considering the period from the mid-1950s until today, it is clear that inflation from 2008 until 2022 was very low (see Figure 1, above). However, this was not a unique occurrence, as inflation was also low in the late 1950s.

The real difference for the period after the 2008 financial crisis was the ultra-low fed funds rate.

***Table 1 US CPI Inflation and fed funds rates - median observations*** *Source St. Louis Fed – FRED and own calculations*

| US CPI Inflation | Median observation | CPI > Fed Funds Rate |
|---|---|---|
| June 1954 - September 2023 | 2,90 | 34% |
| June 1954 - December 2007 | 3,20 | 20% |
| January 2008 - September 2023 | 1,96 | 82% |

| Fed Fund Rates | Median observation | Fed Funds Rate > CPI |
|---|---|---|
| June 1954 - September 2023 | 4,16 | 66% |
| June 1954 - December 2007 | 5,25 | 80% |
| January 2008 - September 2023 | 0,18 | 18% |

In Table 1, median observations have been used instead of averages in order to avoid the impact of outliers.

For the period from 1954 to 2023, fed funds rates were above inflation by a factor of 2 to 1. The median inflation for the period was 2.9%, with a median fed funds rate of 4.16%, which is quite in line with general expectations.

Splitting the period into two (before and after the financial crisis) reveals distinctly different regimes when it comes to the fed funds rate.

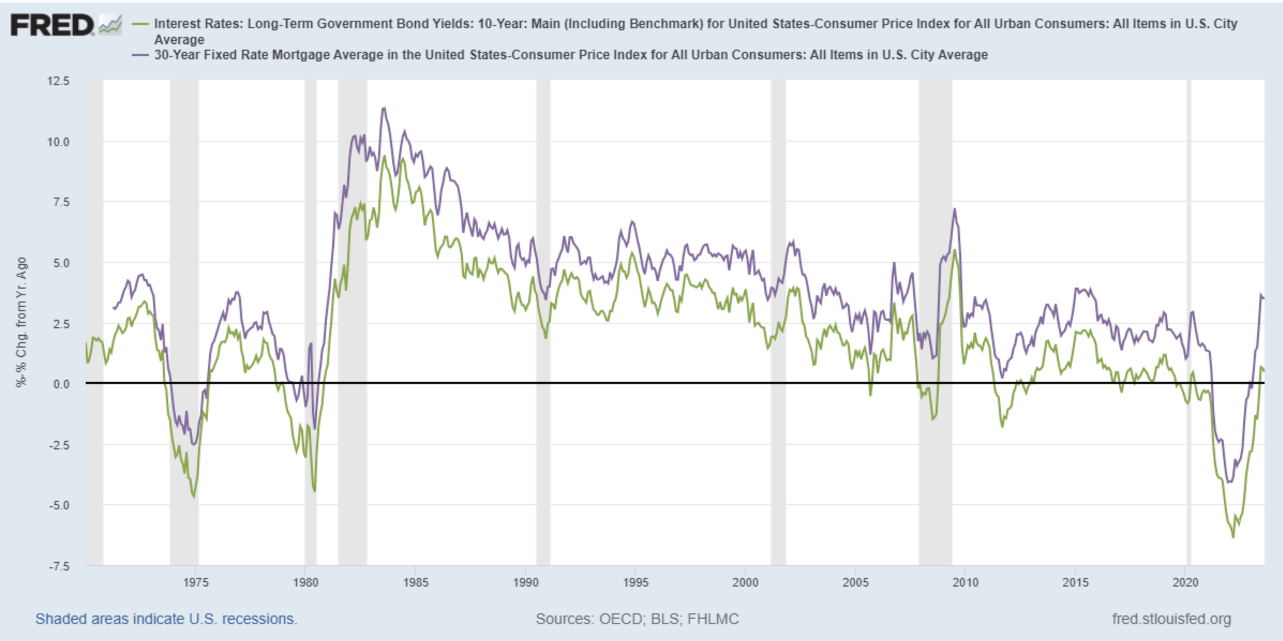
Before the financial crisis, the fed funds rate median observation was 5.25%, compared with 0.18% in the period after - a difference of 5%-points.

A comparison of inflation for the two periods reveals only a drop of 1.2%-points. This indicates that, in the period between 2008 and 2022, interest rate policy in the US (and also the EU) was an exception.

## Where are real long-term interest rates?

Ever since the Federal Reserve under Paul Volcker began to bring inflation under control in the 1980s (see previous chart), real long-term interest rates have been falling. Historically, real interest rates only turn negative in periods of recession, as illustrated by Figure 2, below.

***Figure 2 Real interest rates on 10-year Treasury and 30-year mortgage bonds*** *source St Louis Fed - FRED*




Again, the period after the financial crisis is quite different from that which preceded it. For 10-year US Treasuries, real interest rates are close to zero or negative in non-recessionary periods. Only in recent months have real interest rates on Treasuries and 30-year mortgage bonds become positive once more.

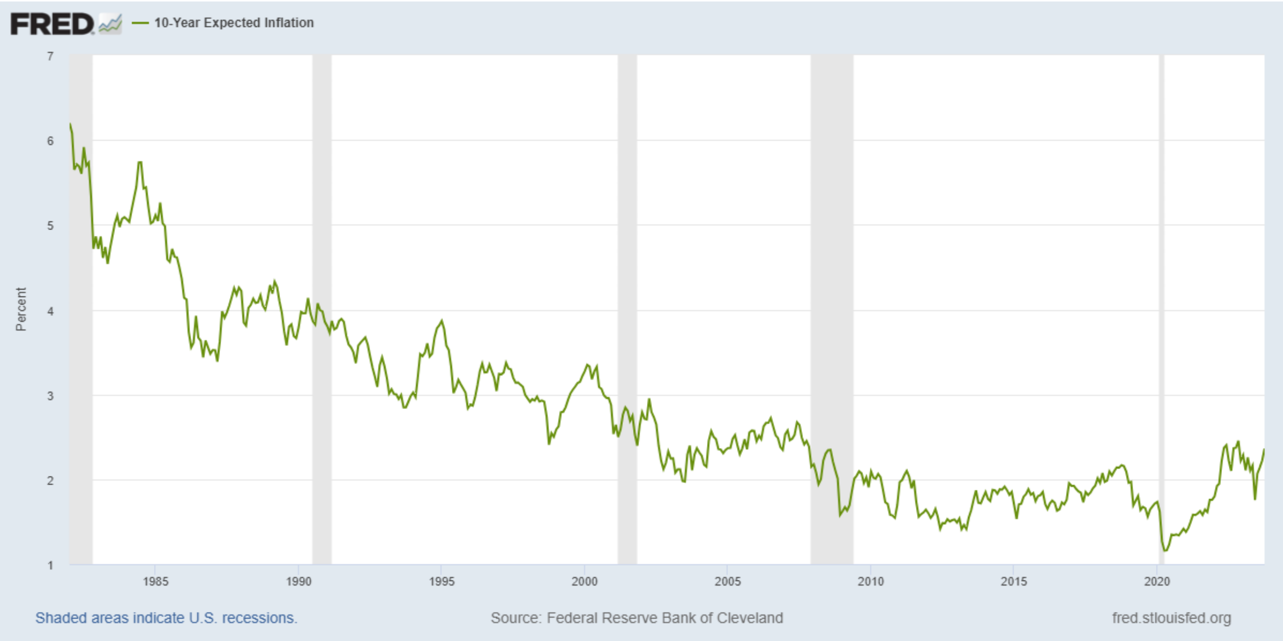
After the financial crisis, an abundance of liquidity helped drive real interest rates down in non-recessionary periods. Especially after COVID-19, where the recession only lasted one quarter, real interest rates reached an unprecedented level because the Federal Reserve was too slow to react in a period without recession.

## US 10-year inflation expectations

Going forward, what are the expectations for US inflation?

The Cleveland Federal Reserve has developed a model for inflation expectations. Its model indicates that inflation expectations have picked up again after being in a downward trend since the mid-1980s

***Figure 3 Cleveland Fed 10-year Expected inflation*** *source St Louis Fed - FRED*




Currently, the 10-year inflation expectation is at a level around 2.5%, with a rising trend. (It is also worth noting that we now have the highest level since the financial crisis of 2008.)

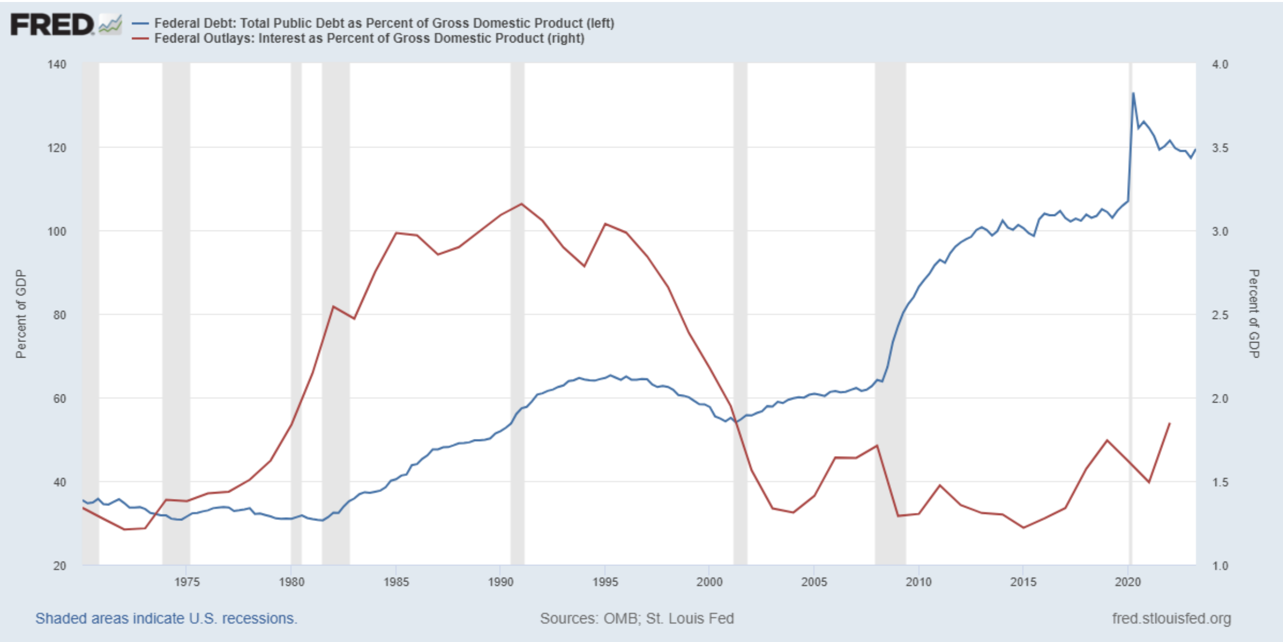
This should indicate that we are not expected to return to the sub-2% inflation regime that we saw after the financial crisis, thus effectively putting a floor under interest rates.

## Debt levels and interest rate expectations

Before forming an opinion about the path of future interest rates, it is important to realise that public debt in many countries is now at completely different levels than it was before the financial crisis.

US federal debt has increased from 60% of GDP in 2007 to 120% of GDP in 2022. This will increase interest payments significantly when debt needs to be refinanced at more than 5% instead of 1%

***Figure 4 US federal debt and interest outlay as % of GDP***




Back in the 1980s, when the Volcker Fed increased interest rates to more than 15%, interest payments only doubled as a percentage of GDP, as the US debt level was under 40% of GDP.

Today, US debt is more than three times that, so interest payments will become a much larger percentage of GDP.

The US will therefore have to pay a higher price for financing its debt before putting another floor under interest rates.

## Long term interest rate expectations

Inflation expectations have increased over the last 18 months and, if we compare this with our findings for median inflation before 2008, it is reasonable to assume that longer-term inflation expectations should be in a range around 3%.

In the period before the financial crisis, median fed funds rates were around 2%-points higher than inflation. Without any severe recession, this would suggest a fed funds rate range of 4.5%-5.5%.

Going forward, this would also indicate 10-year Treasuries in a range of 2.5%-4.5% above inflation, with the high public debt to be serviced taking 10-year interest rates into the range of 4.5%-6.5%.

These are significantly different levels from those that many in the financial markets are expecting and, if correct, will inevitably lead to adjustments in valuation for many financial assets.

Handling “normalised” interest rates will become a challenge for the public sector as well as for many investors.

And regarding the EU and the ECB, as always: as the US goes, so goes the rest of the developed world.