

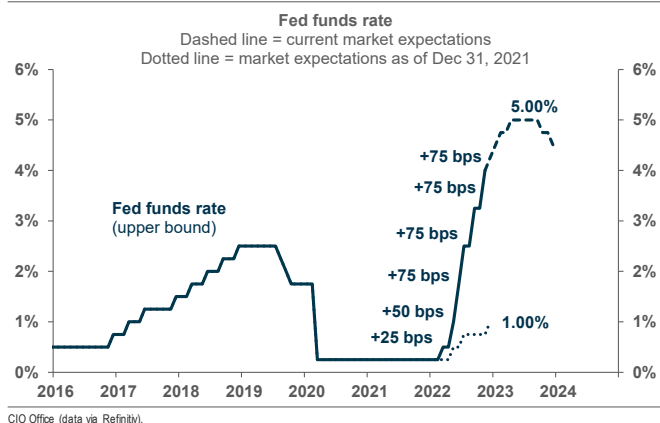
# Strategic Report

CIO Office | November 2022

## Monetary policy and rate hikes: Why, and so what?

The year 2022 has not been easy to navigate for investors. Inflation at a 40-year high caught central banks by surprise, forcing them to quickly tighten monetary policy and causing a wave of significant market volatility. Over the past eight months, the Federal Reserve has raised its policy rate by 375 bps and is indicating that more hikes are on the horizon, monetary tightening well beyond what markets expected at the beginning of the year (Chart 1).

### 1 | The Fed is hiking rapidly



Thus, after repeating throughout last year his intention to keep monetary policy in accommodative territory, Fed Chairman Jerome Powell recently does not miss an opportunity to talk about restrictive policy:

*The Fed's policy actions have been guided by our mandate to promote maximum employment and stable prices [...]. We expect to maintain an **accommodative** stance of monetary policy until these employment and inflation outcomes are achieved.*

- Jerome Powell, Fed Chairman  
July 28, 2021

*We are moving our policy stance purposefully to a level that will be sufficiently **restrictive** to return inflation to 2 percent. Restoring price stability will likely require maintaining a **restrictive** stance of policy for some time.*

- Jerome Powell, Fed Chairman  
November 2, 2022

But what exactly does Powell mean when he talks about accommodative policy and restrictive policy? And what are the implications for the economy and for financial markets? To answer this, we start with the basics by looking at the Central Bank's mandate. Then we discuss the concept of a neutral rate, a fundamental element for the conduct of monetary policy. And, finally, we conclude with some historical facts about how the economy and markets have behaved according to the level of the policy rate relative to the neutral rate.

## What is the Fed's objective?

In essence, the role of central banks is to put in place the conditions necessary to allow the economy to operate at its full potential. In concrete terms, for the Federal Reserve, this objective translates into a dual mandate: maintaining price stability and promoting maximum employment. To achieve this objective, the Central Bank adjusts the stance of its monetary policy (accommodative/neutral/restrictive) using its main tool, the policy rate.

Simply put, when inflation is too low and unemployment is too high, the Central Bank adopts an accommodative monetary policy stance in order to stimulate the economy. Conversely, when

inflation and the labour market are too strong, the Central Bank adopts a restrictive monetary policy stance to slow down economic activity. Finally, when inflation is on target and the labour market is at maximum employment,<sup>1</sup> it adopts a neutral monetary policy stance. Thus, the conduct of monetary policy is a constant balancing act.

But how do central banks determine their monetary policy stance? At what level of the policy rate does monetary policy move from accommodative to restrictive, and vice versa? The concept of the "neutral interest rate" helps to answer these questions.

## The neutral rate

In theory, the neutral rate is the interest rate that does not stimulate economic activity and inflation, but neither does it restrict them. In other words, the neutral rate should be the policy rate that prevails when the economy is in equilibrium, that is, when inflation is on target and the labour market is at maximum employment.

Thus, we speak of an *accommodative* monetary policy stance when the policy rate is below the neutral rate, and a restrictive monetary policy stance when the policy rate is above the neutral rate.

In principle, all this may seem quite simple. In practice, the reality is quite different. Since the neutral rate is not directly observable, it must be estimated, which is far from easy. In fact, there is no consensus among economists on exactly how to measure the neutral rate, so estimating it is an exercise characterized by a high degree of uncertainty.

In general, estimates of the neutral rate can be classified into two broad categories: 1) estimates

based on macroeconomic fundamentals, and 2) estimates based on market data.

At a fundamental level, neutral-rate estimation models often rely on factors such as productivity growth, labour force growth, demand for risk-free assets, potential economic growth, and many others. The New York Fed's Laubach-Williams model<sup>2</sup> is one of the most widely followed neutral rate estimation models, although its update was suspended until further notice in November 2020 due to pandemic-related GDP volatility. A good alternative to the Laubach-Williams model estimate is the long-term Fed funds rate forecast shared quarterly by Fed officials,<sup>3</sup> a good indicator of their views on the neutral rate. In sum, the main advantage of such a measure is its economic logic, although it is subject to potential *ex post* revisions.

On the market data side, the rate of a 5-year Treasury bill in five years is considered a good estimate of the neutral rate. By taking a forward interest rate with no default risk, we limit the more cyclical influences on market rates by isolating the structural factors behind the long-term equilibrium interest level. This results in a reality-based measure that is not subject to revision, but which is nonetheless significantly more volatile (**Chart 2**, next page).

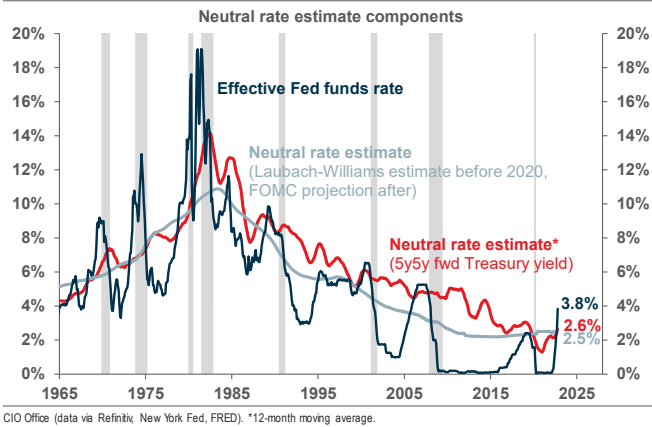
For analytical purposes, since there is no perfect method, we simply opted for an average of these two measures, while adding a range of +/- 50 bps due to the significant uncertainty surrounding this estimate. Thus, according to this measure, the neutral rate would currently be 2.6% in the United States and monetary policy would therefore have just moved into restrictive territory (**Chart 3**, next page).

<sup>1</sup> The Federal Reserve considers an annual inflation rate of 2 percent to be consistent with its price stability mandate, while maximum employment is defined as the highest level of employment that the economy can sustain over time. For more information: [The Fed and the Dual Mandate](#), Federal Reserve of St. Louis.

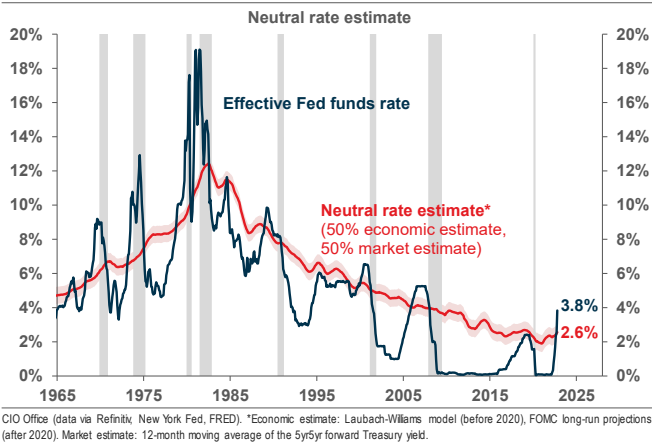
<sup>2</sup> See [Measuring the Natural Rate of Interest](#).

<sup>3</sup> See [September 21, 2022: FOMC Projections Materials](#). According to this estimate, the neutral rate would currently be 2.5%.

## 2 | Two ways of estimating the neutral rate

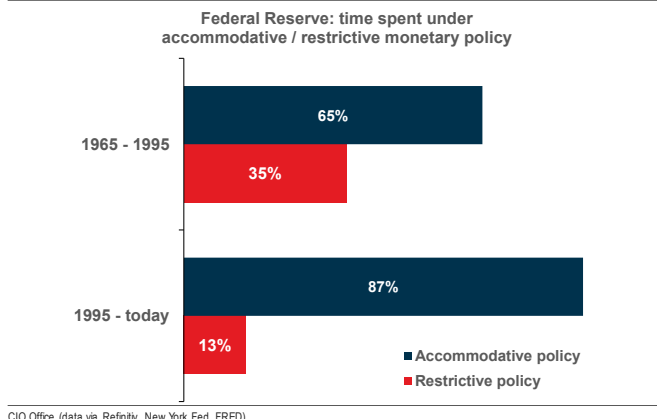


## 3 | A newly restrictive monetary policy



While shifts into restrictive territory were not that uncommon between 1965 and 1995, they have been much rarer in recent history. Since 1995, policy has been accommodative 87% of the time and restrictive only 13% of the time (Chart 4).

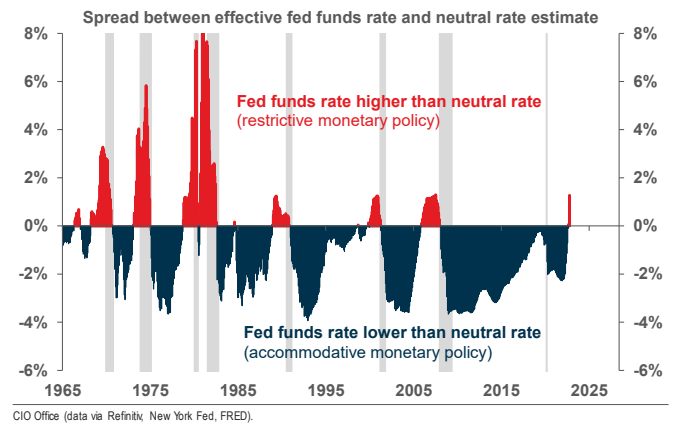
## 4 | Restrictive policies are not commonplace



## Economic implications

It is clear that when the Federal Reserve tries to slow down the economy, it works. Indeed, we have to go back to 1966 to find a restrictive cycle that was not followed by a U.S. recession (Chart 5). Moreover, the shift of monetary policy into restrictive territory has preceded seven of the last eight U.S. recessions, the only exception being the COVID-19 pandemic crisis.

## 5 | A very reliable recession indicator



Despite these telling historical facts, one cannot completely rule out the possibility that it will be different this time. After all, the current post-pandemic overheated environment characterized by a large savings glut and a job market supported by changing demographics has no real historical precedent. At the very least, this suggests that if there is a recession, it could be a relatively modest one, although close monitoring of the economic situation is warranted.

## Market implications

While the circumstances associated with each of these cycles are unique and imply differences from episode to episode, certain market trends stand out (**Chart 6**, next page).

Specifically, during accommodative cycles – which lasted on average just over five years – the average annualized total return of the S&P 500 was 14.0%, more than double that of Treasuries (6.5%). Thus, the equity risk premium (the return differential between stocks and risk-free bonds) has been strongly positive. Moreover, since inflation tended to be relatively stable and close to target during accommodative periods (3.1% on average), real stock and bond returns were also positive.

On the other hand, restrictive cycles lasted on average only two years and are associated with more volatile and much lower average stock returns (-0.2%) than those of Treasuries (5.5%), for a negative equity risk premium. With inflation much higher in restrictive times (6.8% on average), real returns are negative for both equities and bonds.

## Bottom line

In the end, the neutral rate remains a theoretical value, and its estimation comes with a high degree of uncertainty. For example, a "true" neutral rate higher than 2.6% would mean that the Fed's monetary policy may not be as restrictive as it currently appears, suggesting a better outlook for both the economy and equity markets.

On the other hand, it seems that financial markets are now much more anticipatory than in the past, something that the Fed Chairman even addressed in his most recent press conference.<sup>4</sup> In this case, it could be that many of the negative effects of monetary tightening have already been discounted by financial markets.

In any case, it is clear from listening to the Fed that we are entering (or are about to enter) a new cycle of restrictive monetary policy. For investors, this means volatility should remain elevated and positive, while real returns are likely to remain harder to come by, until a sharp slowdown in inflation allows for an eventual return to less restrictive monetary policy.

**Mikhael Deutsch-Heng,**  
*Associate, Investment Strategy*

**Louis Lajoie,**  
*Investment Strategist*

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<sup>4</sup> "One big difference now is that it used to be that you would raise the federal funds rate, financial conditions would react and then that would affect economic activity and inflation. Now, financial conditions react well before an expectation of monetary policy". See the full [transcript](#) of Jerome Powell's speech on November 2, 2022.

## 6 | Market conditions depending on the Federal Reserve's monetary policy stance

### Accommodative U.S. monetary policy cycles since 1965

Start date	End date	Length (months)	S&P 500 total return	US 10yr bond total return	Equity risk premium	CPI inflation	S&P 500 <u>real</u> total return	US 10yr bond <u>real</u> total return
Jan-1965	Apr-1966	15	8.2%	0.8%	7.4%	2.8%	5.4%	-2.0%
Dec-1966	Mar-1968	15	11.0%	-0.5%	11.5%	3.4%	7.6%	-3.8%
Aug-1970	Jan-1973	29	22.6%	9.9%	12.8%	3.7%	18.9%	6.1%
Dec-1974	Sep-1978	45	17.4%	6.1%	11.3%	6.8%	10.5%	-0.7%
Jul-1982	Nov-1988	76	20.0%	15.6%	4.4%	3.4%	16.7%	12.2%
Nov-1990	Aug-1999	105	20.7%	8.8%	11.9%	2.6%	18.1%	6.2%
Mar-2001	Nov-2005	56	2.6%	5.0%	-2.5%	2.5%	0.1%	2.5%
Jan-2008	Sep-2022	176	9.4%	2.4%	7.0%	2.3%	7.1%	0.1%
<b>Average*</b>		<b>65</b>	<b>14.0%</b>	<b>6.5%</b>	<b>7.4%</b>	<b>3.1%</b>	<b>10.9%</b>	<b>3.5%</b>

### Restrictive U.S. monetary policy cycles

Start date	End date	Length (months)	S&P 500 total return	US 10yr bond total return	Equity risk premium	CPI inflation	S&P 500 <u>real</u> total return	US 10yr bond <u>real</u> total return
Apr-1966	Dec-1966	8	-13.4%	4.0%	-17.3%	2.8%	-16.2%	1.2%
Mar-1968	Aug-1970	29	-2.2%	1.1%	-3.3%	5.5%	-7.7%	-4.4%
Jan-1973	Dec-1974	23	-22.8%	3.6%	-26.4%	10.9%	-33.7%	-7.3%
Sep-1978	Jul-1982	46	6.8%	2.9%	3.9%	10.5%	-3.7%	-7.6%
Nov-1988	Nov-1990	24	11.5%	10.9%	0.6%	5.5%	6.1%	5.5%
Aug-1999	Mar-2001	19	-5.8%	11.5%	-17.3%	3.4%	-9.2%	8.1%
Nov-2005	Jan-2008	26	7.0%	7.9%	-0.9%	3.1%	3.9%	4.8%
<b>Average*</b>		<b>25</b>	<b>-0.2%</b>	<b>5.5%</b>	<b>-5.7%</b>	<b>6.8%</b>	<b>-7.0%</b>	<b>-1.3%</b>

CIO Office (data via Robert J. Shiller, New York Fed, FRED). \*Average returns are weighted by cycle length. All returns are annualized.

**CIO Office**  
CIO-Office@nbc.ca

**Martin Lefebvre**  
*Chief Investment Officer*  
martin.lefebvre@bnc.ca

**Louis Lajoie**  
*Director*  
*Investment strategy*  
louis.lajoie@bnc.ca

**Simon-Carl Dunberry**  
*Director*  
*Portfolio strategy*  
simon-carl.dunberry@bnc.ca

**Nicolas Charlton**  
*Associate*  
*Quantitative strategy*  
nicolas.charlton@bnc.ca

**Mikhael Deutsch-Heng**  
*Associate*  
*Investment strategy*  
mikhael.deutschheng@bnc.ca

**Zaid Shoufan**  
*Associate*  
*Portfolio strategy*  
zaid.shoufan@bnc.ca

## General

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