# Inflation, Unemployment, and the Fed’s Balancing Act

## Introduction

The Federal Reserve has a dual mandate from Congress: **control inflation** while also **maintaining low unemployment**. Its simplicity makes the task sound straightforward. In practice, however, these goals often move in opposite directions. Over the past 25 years, this tension has forced the Fed into a constant balancing act with tightening when inflation climbs, loosening when jobs are at risk, and always navigating trade-offs.

To analyze this balancing act, we sourced and processed the data as follows:

* **Consumer Price Index (CPI)**: Retrieved from the**Bureau of Labor Statistics (**[BLS](https://www.bls.gov/developers/home.htm)**) API,** then created a **year-over-year (YoY) inflation.** This allowed us to measure long-term inflation trends rather than short-term volatility. Most importantly, the YoY measure was aligned with a **one-year lag** of the Fed Funds Rate, reflecting the delayed impact of monetary policy.
* **Inflation Goal**: Defined using the Federal Reserve’s official [target](https://www.federalreserve.gov/faqs/what-economic-goals-does-federal-reserve-seek-to-achieve-through-monetary-policy.htm) of **2% inflation**, as documented in the Fed’s policy guidance.
* **Unemployment Goal**: Benchmarked against the **Natural Rate of Unemployment (**[NROU](https://fred.stlouisfed.org/series/NROU)**),** which shifts over time, using FRED data.
* **Mandate Check**: We created a field to mark when **actual inflation and unemployment rates simultaneously matched their respective goals.** In these periods, the Fed’s dual mandate was considered met.

## What the Data Shows

The chart compares year-over-year inflation (a one-year lag) against the Fed Funds rate and unemployment rates. This lag is critical as it allows the Fed rate to take effect and highlights the delayed cause-and-effect relationship between inflation pressures, the Fed’s rate decisions, and the eventual impact on jobs.

1. **When inflation surged**, such as during the 2008 financial crisis and again in 2021–2022, the Fed responded by **raising rates**. Higher rates, while effective at cooling inflation, slowed the economy and were followed by rising unemployment.
2. **When unemployment spiked**, such as after the 2008 crisis and the 2020 pandemic, the Fed **lowered rates** aggressively to stabilize jobs, even though this risked fueling inflation later.

The lagged inflation measure makes clear that the Fed rarely moves preemptively and instead, it reacts to sustain price pressures, with unemployment responding after monetary policy changes ripple through the economy.

The data is not one of perfect success, but of policy trade-offs and timing.

* Tightening rates to tame inflation risks higher unemployment.
* Cutting rates to support jobs risks higher inflation.
* The one-year lag underscores that policy effects are delayed but deliberate, creating a kind of policy echo where when inflation rises, then the Fed reacts, and unemployment shifts in response.

## Conclusion

The Fed’s performance cannot be judged by any single measure. Instead, the data highlights its **adaptive strategy** to continually shift policy to balance two competing goals. Over 25 years, the Fed’s actions demonstrate the difficulty of walking the fine line between **too much inflation** and **too much unemployment**.

The mandate check we created makes this challenge even clearer. The Fed has simultaneously achieved both its inflation and unemployment goals only **about 23% of the time.** This underscores that the Fed’s dual mandate is less a state of constant achievement and more a process of **constant compromise and adjustment**.

Ultimately, the Fed’s role is not about hitting perfection but about steering the economy within acceptable ranges, knowing that solving one problem often creates tension with the other.