

## The Rise and Fall of M2

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**M2** is a broad measure of the money supply, including currency and various sorts of bank and money market mutual fund deposits that are relatively liquid. Figure 1 shows that the year-over-year growth rate of M2 has behaved very unusually since February 2020: M2 grew at record rates during the COVID-19 pandemic from February 2020 through 2022 but has declined at record rates since late 2022. The 26.9% rate of year-over-year growth in February 2021 easily exceeds the rates of growth during either the quantitative easing programs of 2008-15 or the inflations of the 1970s and 1980s.<sup>1</sup> At the same time, the current negative rates of growth are also unprecedented: There has been no other month of year-over-year decline in M2 since at least 1959.

From the 1960s to the 1980s, the “Monetarist” School of Economics, famously associated with Milton Friedman and the University of Chicago, would argue for the importance of monetary aggregates in economic activity.<sup>2</sup> Monetarism largely fell out of favor, however, because it was nearly impossible to find strong and consistent relations between monetary aggregates and variables of interest, such as prices and output. Technological and legal financial innovations contributed to instability in such relations.

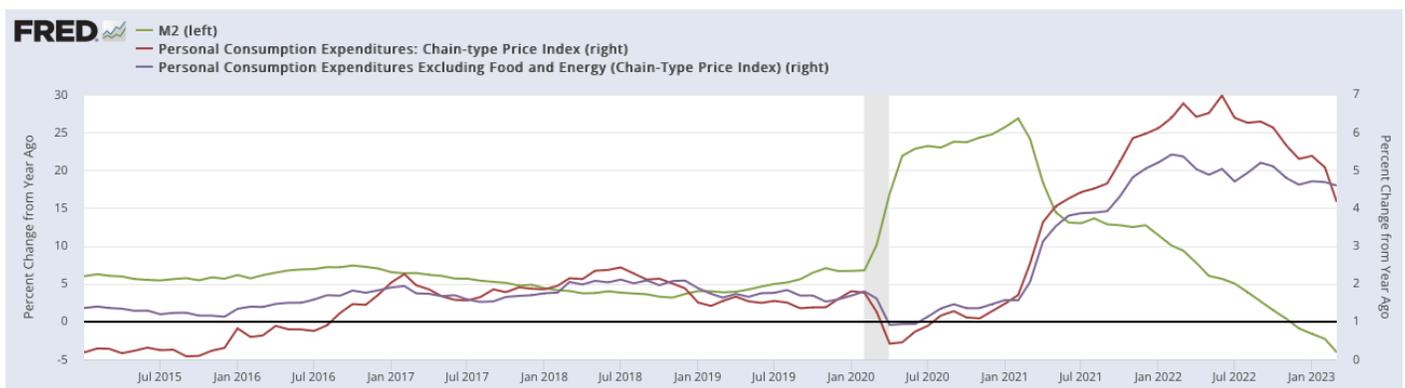
Monetarism’s classic claim, however, is that growth in some monetary aggregate drives inflation, although mone-

tarists disagree on what aggregate to use and have always emphasized that the effect of money on inflation is likely to be “long and variable,”<sup>3</sup> which is often taken to mean a lag of between 6 months and 2 years.

Figure 1 shows that recent inflation behavior has been consistent with a lagged effect of M2 on personal consumption expenditures (PCE) inflation. That is, PCE inflation (red line) began to rise in February 2021, at the peak of M2 growth rates and a year after M2 growth began soaring in February 2020. Of course, non-monetary factors affected short-run inflation in 2022: February 2022 was the first month of the Russian invasion of Ukraine that produced significant price pressures through commodity prices and supply chains.

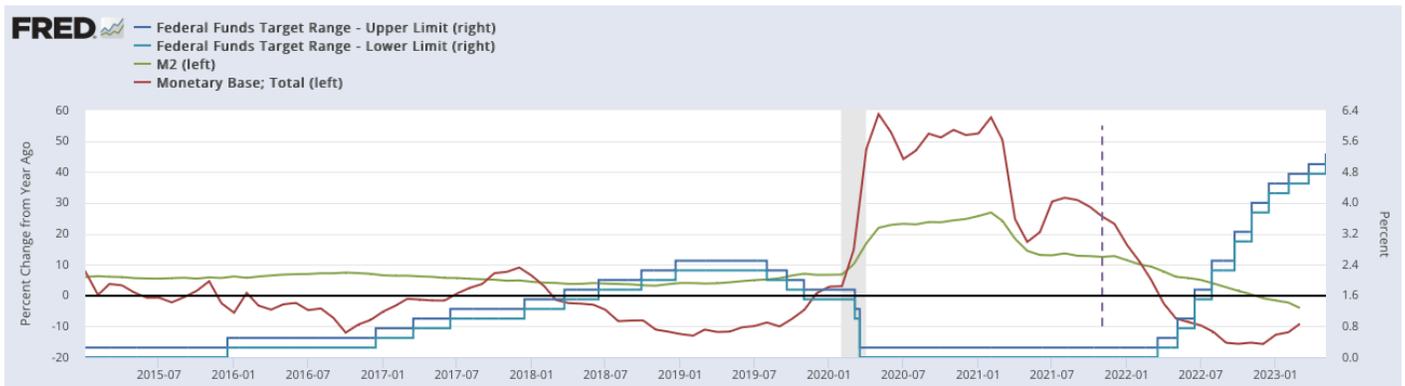
Just as inflation followed M2 growth up, it followed it coming back down. Headline PCE inflation peaked in June 2022, almost 18 months after the peak of M2 growth, at a time when M2 growth had finally fallen back to historically unremarkable levels (Figure 1).<sup>4</sup> But M2 growth continued to fall, reaching unprecedented negative levels in late 2022 (McMaken, 2023). If PCE inflation continues to follow M2 growth, it should soon return to levels consistent with the FOMC target of 2% and perhaps even (undesirably) fall below this target. Of course, there is no guarantee that either will happen.

Figure 1  
**M2 Growth and PCE Inflation**



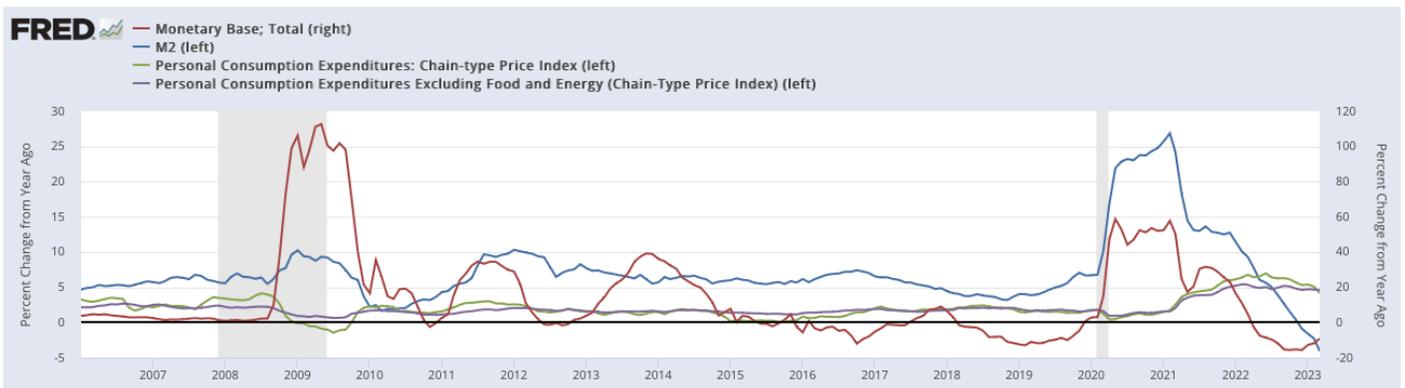
SOURCE: FRED®, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/graph?g=13IDJ>.

Figure 2  
M2 and Monetary Policy Instruments



NOTE: The purple dashed line denotes November 2021.  
SOURCE: FRED®, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/graph?g=13iRG>.

Figure 3  
Monetary Base, M2, and Inflation Following the Great Financial Crisis



SOURCE: FRED®, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/graph?g=13he8>.

Patterns in Figure 2 suggest that monetary policy decisions taken to curtail inflation helped reduce M2 growth to negative levels: In November 2021 the FOMC announced that it would begin to “taper” its asset purchases, which finally ended in March 2022, the same month in which the FOMC began raising the federal funds target. During the first half of 2022, growth in the FOMC-influenced monetary base fell to negative levels and thereby tended to reduce broader aggregates, such as M2.

Finally, it is worth noting that huge growth in the monetary base in 2008-15 did not spark unusual growth in M2 or inflation during that period (Figure 3). This

occurred because banks essentially swapped bonds for reserves held at the Federal Reserve. That is, banks chose to hold much of the increase in the base as excess reserves with the Federal Reserve.

Macroeconomic theories are approximations, at best, because complex relationships between unpredictable people make the global economy a constantly evolving place. Still, advocates of links between monetary aggregates and prices will surely study this episode closely in years to come. ■

## Notes

<sup>1</sup> David Andolfatto and Joel Steinberg (2021) outline the role of regulation D in fueling M1 growth during the COVID-19 pandemic of 2020. Andrew Castro, Michele Cavallo, and Rebecca Zarutskie (2022) very usefully explain the technical reasons for the growth of types of bank deposits that fueled M1 and M2 growth. These authors emphasize the roles of precautionary holding of money by firms and individuals during the pandemic, as well as fiscal and monetary stimuli.

<sup>2</sup> Monetarism also had a close connection to the Research Department at the Federal Reserve Bank of St. Louis. Milton Friedman's undergraduate advisor, Homer Jones, was the first Research Director at the St. Louis Fed, and monetarist research flourished in the department in the 1960s and 1970s.

<sup>3</sup> See <https://stlouisfed-prod-cm.ase3.p.azure.frb.pvt/publications/regional-economist/2023/may/examining-long-variable-lags-monetary-policy>.

<sup>4</sup> Castañeda and Cedejas (2023) would argue that the 18-month lag from money growth to inflation is consistent with Friedman's "long-and-variable lags" explanation.

## References

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