# LESSONS FROM HISTORY FOR SUCCESSFUL DISINFLATION

## ONLINE APPENDIX A:

## DATA

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This appendix describes the sources of all data used in the paper.

***Inflation Data.*** We use the same data sources and procedures as in Romer and Romer (2023). The only difference is that we use updated and extended versions of the data from the Bureau of Economic Analysis (BEA), which are slightly revised and are now on a 2017 base year. Much of the description here therefore follows our earlier paper.

The quarterly GDP price index data for 1947:1 to 2023:4 are from the BEA, Table 1.1.4, series gross domestic product, seasonally adjusted, index, 2017=100, downloaded 2/18/2024. All BEA data are from https://www.bea.gov/itable/national-gdp-and-personal-income. Because we specify the variable in percentage changes and begin with the value for 1946:4, we need to construct a proxy for the level of the index for both 1946:3 and 1946:4. To do this, we simply take the ratio of the GDP price index to the Consumer Price Index for All Urban Consumers (CPI-U) at a quarterly frequency in 1947:1, and multiply it by the quarterly CPI-U in 1946:3 and 1946:4. The CPI-U data are from the Bureau of Labor Statistics (BLS), series CUUR0000SA0, not seasonally adjusted, index, 1982–84=100, downloaded 11/20/2022. All BLS data are from https://www.bls.gov/data. We convert the monthly series to quarterly by averaging. The CPI-U for 1946 is only available in seasonally unadjusted form. However, because seasonal movements in the CPI-U are relatively minor, we make no further adjustment to our constructed proxy.

The quarterly data on the personal consumption expenditures (PCE) price index for 1947:1 to 2023:4 and the PCE price index excluding food and energy for 1959:1 to 2023:4 are from the BEA, Table 2.3.4, series personal consumption expenditures and PCE excluding food and energy, seasonally adjusted, index, 2017=100, downloaded 2/18/2024. To construct a proxy for the PCE price index for 1946:3 and 1946:4, we take the ratio of the PCE price index to the CPI-U at a quarterly frequency in 1947:1, and multiply it by the quarterly CPI-U in 1946:3 and 1946:4 (which, as described above, is only available seasonally unadjusted). The CPI-U data are from the BLS, series CUUR0000SA0, not seasonally adjusted, index, 1982–84=100, downloaded 11/20/2022. We convert the monthly series to quarterly by averaging. To construct a proxy for the PCE price index excluding food and energy for 1957:1 to 1958:4, we take the ratio of the PCE price index excluding food and energy to the CPI-U less food and energy at a quarterly frequency in 1959:1, and multiply it by the quarterly CPI-U less food and energy. The CPI-U less food and energy data are from the BLS, series CUSR0000SA0L1E, seasonally adjusted, index, 1982–84=100, downloaded 11/20/2022. To construct a proxy for the PCE price index excluding food and energy for 1947:1 to 1956:4, we take the ratio of our proxy to the quarterly CPI-U less food in 1957:1, and multiply it by the CPI-U less food. The CPI-U less food data are from the BLS, series CUSR0000SA0L1, seasonally adjusted, index, 1982–84=100, downloaded 11/20/2022. Finally, to construct a proxy for the PCE price index excluding food and energy for 1946:3 and 1946:4, we take the ratio of our proxy to the quarterly CPI-U less food (which is only available seasonally unadjusted for this period) in 1947:1, and multiply by the CPI-U less food. The CPI-U less food data are from the BLS, series CUUR0000SA0L1, not seasonally adjusted, index, 1982–84=100, downloaded 11/20/2022. We convert the various monthly CPI series to quarterly by averaging.

For all three series, inflation at an annual rate is calculated as the difference in logarithms times 400.

***Forecasts.*** The data for the Livingston Survey are from the Federal Reserve Bank of Philadelphia, Real-Time Data Research Center, "Historical Data: Livingston Survey – Philadelphia Fed" page, https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/livingston-historical-data, "Individual Data" spreadsheet, individualdata.xlsx, "CPI"

tab, Columns "CPI_6M" and "CPI_12M," downloaded 6/8/2024. Inflation at an annual rate is calculated as the difference in logarithms times 200.

The data for the Survey of Professional Forecasters are from the Federal Reserve Bank of Philadelphia, Real-Time Data Research Center, "Individual Forecasts: Survey of Professional Forecasters" page, https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/individual-forecasts, "Surveys 1968:4–present" spreadsheet, SPFmicrodata.xlsx, "PGDP" tab, downloaded 4/16/2024. We use Columns "PGDP5" and "PGDP6" (and so find the forecasts of inflation in the quarter 6 quarters after the date of the survey), except for 1969Q1 (February 1969). For that date, PGDP6 is not available, and so we use Columns "PGDP4" and "PGDP5" (and thus find the forecasts of inflation in the quarter 5 quarters after the date of the survey). Inflation at an annual rate is calculated as the difference in logarithms times 400.

The numbers we report are calculated by computing the forecast of inflation implied by each forecaster's projected path of the price level, and then finding the median of those forecasts. The medians reported on the Federal Reserve Bank of Philadelphia website, in contrast, are calculated by finding the median forecasts of the price level and then computing the implied inflation rate. The two measures can differ, particularly because of effects from rounding. The largest difference for the dates we consider occurs in the 1969Q1 (February 1969) Survey of Professional Forecasters, when the inflation rate implied by the median forecasts of the price level is exactly zero even though 49 or the 61 respondents forecasted inflation over 3 percent.

***Financial Market Data.*** The monthly effective federal funds rate data for 1954:7 to 2023:12 are from the U.S. Board of Governors of the Federal Reserve System, https://www.federalreserve.gov/datadownload, H.15 Selected Interest Rates, series RIFSPFF_N.M, percent per year, downloaded 5/2/2024. The series we use for the 3-month Treasury bill rate is the 3-Month Treasury Bill Secondary Market Rate, Discount Basis, Percent, Monthly, Not Seasonally Adjusted (series TB3MS), downloaded from Federal Reserve Economic Data (FRED), https://fred.stlouisfed.org, 5/3/2024.

The series we use for the 2-year nominal Treasury rate is the Market Yield on U.S. Treasury Securities at 2-Year Constant Maturity, Quoted on an Investment Basis, Percent, Daily, Not Seasonally Adjusted (series DGS2), downloaded from FRED, 4/6/2024.

The series for the 5-year breakeven inflation rate is the 5-Year Breakeven Inflation Rate, Percent, Daily, Not Seasonally Adjusted (series T5YIE). The 5-year, 5-year forward inflation expectation rate is the 5-Year, 5-Year Forward Inflation Expectation Rate, Percent, Daily, Not Seasonally Adjusted (series T5YIFR). Both were downloaded from FRED 4/25/20244.

## REFERENCES

Romer, Christina D., and David H. Romer. 2023. "Presidential Address: Does Monetary Policy Matter? The Narrative Approach after 35 Years." *American Economic Review* 113 (June): 1395–1423.