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The Relationship Between Inflation and the Distribution of Relative Price Changes

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The Relationship Between Inflation and the Distribution of Relative Price Changes*

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Abstract

Monthly U.S. inflation from 1995 through 2019 is well explained by statistics summarizing the monthly distribution of relative price changes. We document this relationship and use it to evaluate the behavior of inflation during and after the COVID-19 pandemic. In earlier periods when inflation was not stable, the relationship between inflation and the distribution of relative price changes shifts, much like the Phillips curve. We use that shifting relationship to derive a measure of underlying inflation that complements existing measures used by central banks.

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1 Introduction

A central bank's control over inflation is imperfect, even in a successful inflation-targeting regime such as the U.S. from 1995 through early 2020. One factor that can cause inflation to fluctuate in a stable inflation regime is large shocks that primarily affect the relative prices of particular consumption categories (e.g., gasoline). In months with dramatic changes in gasoline prices, it is straightforward and noncontroversial to attribute a large deviation of inflation from target to the gasoline price shock. We show that there has been a more general relationship between inflation and the distribution of relative price changes during the extended period of inflation stability in the U.S.: the paper's primary contribution is to show that monthly inflation has been well explained by a single statistic, namely the share of relative price increases (SRPI) in the cross-sectional distribution. We then use that relationship for three purposes: 1) to characterize U.S. inflation during and after the COVID-19 pandemic; 2) to generate a time-varying measure of underlying inflation; and 3) to re-examine the Phillips curve.

Before continuing, it is important to make clear how we view the period from 1995 until the COVID-19 pandemic. That period was evidently a stable inflation regime, as annual inflation was objectively stable: the standard deviation of 12-month inflation was just 0.9 percent, compared to 2.6 percent in the 25 years prior. One would expect inflation to be stable within a stable policy regime targeting a fixed inflation target and the historical record indeed argues for calling this period a stable policy regime. Henceforth we use the term "stable regime" to refer to the stability of both inflation and policy. Note, however, that even within this stable regime, *monthly* inflation was volatile, with a standard deviation of 2.3 percent (for annualized monthly inflation), compared to 3.2 percent in the 25 years prior. We show that most of that monthly volatility can be explained by SRPI. For the stable inflation regime, inflation is high when the SRPI is low, and vice versa.

In other periods, when inflation did not exhibit such prolonged stability, SRPI can still be informative about the behavior of inflation. First, the pre-COVID-19 relationship between inflation and SRPI serves as a benchmark against which to evaluate the behavior of inflation starting in March 2020. Instead of simply looking at the univariate behavior of inflation, we can ask whether the joint behavior of inflation and SRPI in each month is consistent with its pre-COVID-19 relationship. Second, we maintain that there is always a window of data (potentially short) over which inflation can be viewed as stable, and thus there is a stable relationship between monthly inflation and SRPI. We estimate that relationship in a rolling window and use it to produce a time series measure of underlying inflation for the entire post-1959 era: essentially, underlying inflation is the level of inflation that results from cleaning out the effects of the distribution of relative price changes (as summarized by SRPI). Third, the Phillips curve inevitably comes up in any discussion of explaining inflation. Just as we used SRPI to produce a time-varying measure of underlying inflation, we also use it to generate new time-varying Phillips curve estimates by including it as a shift variable in monthly Phillips curve regressions.

Our paper connects to a large and diverse literature covering core inflation and its variants, asymmetry of the price-change distribution, factor models, and COVID-19 inflation. There is a long tradition of looking for ways to extract the "signal" from noisy high-frequency inflation data by constructing alternative inflation rates that omit certain price changes. Examples are inflation ex-food and energy (core inflation), and trimmed-mean inflation with the special case of median inflation.[1] This work is motivated by the observation that in the short run, large shocks to particular expenditure categories can move the inflation rate. Our contribution is to focus on the distribution of *relative* price changes, whereas the existing literature on core inflation has focused on nominal price changes. The focus on the distribution of relative price changes makes it clear that the relationship with inflation is regime-dependent: across regimes with different mean inflation rates, we are comfortable ruling out a priori that inflation is explained by the distribution of relative price changes. Of course, one can define the change in the core (trimmed mean) relative price inflation by subtracting inflation from core (trimmed mean) inflation. But when core inflation has low variance, that measure will be highly correlated with inflation by construction.

Our focus on relative price changes connects with Ball and Mankiw (1995) who note a correlation between inflation and asymmetry measures.[2] Ball and Mankiw focus on skewness and another statistic they call AsymX, measuring relative price changes in the tails of the price distribution. We find that our SRPI measure performs better than skewness in accounting for inflation. Although AsymX accounts for inflation quite well, it can be shown that it is a version of the trimmed median relative price inflation discussed above. In particular, AsymX is the inverse relative trimmed mean weighted by the expenditure share of goods that enter the trimmed mean, and is therefore highly correlated with inflation by construction when trimmed mean inflation has low variance.

Our paper is also related to the literature that uses factor models to extract common components from the distribution of price changes, especially Reis and Watson (2010).[3] They decompose inflation into three factors: "pure" inflation, which involves zero relative price changes; a component that is imperfectly correlated across categories; and an idiosyncratic component. Our approach is much less restrictive, although our underlying inflation is a loose analog to their pure inflation.

Finally, there is a large literature analyzing the spike in inflation associated with the COVID-19 pandemic, and much of that literature discusses the distribution of price changes.[4] While we do not attempt a structural explanation of the high inflation period starting in 2021, we do evaluate the extent to which unusual relative price changes can account for that inflation using the pre-COVID-19 relationship between inflation and SRPI. Our finding that this relationship was not maintained, points to some combination of large aggregate shocks—monetary policy shocks or other—and/or a fundamental change in the monetary regime.

The remainder of the paper is organized as follows. In Section 2, we discuss general properties of the distribution of relative price changes and provide intuition for why, in a

[1]For example Bryan and Cecchetti (1994), Dolmas (2005), Verbrugge (2021), and Ball and Mazumder (2019).

[2]Bryan and Cecchetti (1999) argue that this relationship is an artifact of small sample bias in the cross-sectional data. Like Ball and Mankiw (1999), we take the view that the cross-sectional data covers prices for the entire population of expenditure categories, although within each category only a subset of prices are sampled.

[3]See also Bryan and Cecchetti (1993), Stock and Watson (2016), and Bańbura and Bobeica (2020).

[4]For example Ball, Leigh and Mishra (2022), Bernanke and Blanchard (2023), Comin, Johnson and Jones (2023), Rubbo (2023), and Ruge-Murcia and Wolman (2022)

stable monetary regime, one might expect inflation to vary systematically at high frequencies with measures of asymmetry in the distribution of relative price changes. Section 3 shows that a systematic relationship is indeed present within the stable regime from 1995-2019. In Section 4, we use that relationship to evaluate the behavior of inflation in other periods: the COVID-19 period starting in March 2020, and earlier periods before inflation stabilized in the late 1990s. We use time variation in the relationship between inflation and SRPI to develop a time-series measure of underlying inflation. In Section 5, based on similar reasoning, we estimate Phillips curves that are augmented with SRPI. Section 6 concludes.

2 The Distribution of Relative Price Changes

In this section, we explain two basic properties of the distribution of relative price changes: 1) the average relative price change is zero, and 2) the share of relative price increases has a simple analytical relationship to the average sizes of relative price increases and decreases. We then provide intuition for why changes in SRPI may explain fluctuations in inflation in a stable regime.

2.1 Basic properties

We study U.S. Personal Consumption Expenditure (PCE) inflation, which is the Federal Reserve's preferred measure of consumer price inflation. Throughout the paper, we will assume that inflation is defined as an expenditure share weighted average of price changes for the different PCE categories:

$$\pi_t = \sum_{n=1}^{N} \omega_{n,t-1} \pi_{n,t}, \tag{1}$$

where π_t is the inflation rate in period t, $\pi_{n,t}$ is the rate of price change for category n in period t, and $\omega_{n,t-1}$ is the expenditure share for category n in period $t-1$.[5]

For a particular PCE category, its relative price change is the difference between its nominal price change and the inflation rate, that is, $\pi_{n,t} - \pi_t$.[6] There are two basic properties of the distribution of relative price changes that follow from this definition and will be important for our analysis. As a preliminary, note that when we refer to the distribution of relative price changes we mean the expenditure-share-weighted distribution. The first property of the distribution is that the average relative price change is zero – this follows directly from (1):

$$0 = \sum_{n=1}^{N} \omega_{n,t-1} \left(\pi_{n,t} - \pi_t \right). \tag{2}$$

[5] The BEA uses a somewhat more complicated Fisher-Ideal price index to calculate PCE inflation, but our Divisia approximation in (1) is quite accurate.

[6] Relative prices can also be defined bilaterally for different categories, for example the relative price of automobiles in terms of gasoline. Throughout this paper, we use the term "relative price" to refer to the price of one category relative to overall PCE.

The second property is that the ratio of SRPI to the share of relative price decreases is equal to the ratio of the average relative price decrease to the average relative price increase. To see this, note first that we can collect the N categories in the sum on the right-hand side of (2) into two sets, those with relative price increases and those with relative price decreases, that is,

$$0 = \sum_{\pi_{n,t} > \pi_t} \omega_{n,t-1} \left(\pi_{n,t} - \pi_t\right) - \sum_{\pi_{n,t} < \pi_t} \omega_{n,t-1} \left(\pi_t - \pi_{n,t}\right). \tag{3}$$

This implies

$$0 = \rho \sum_{\pi_{n,t} > \pi_t} \frac{\omega_{n,t-1}}{\rho} \left(\pi_{n,t} - \pi_t\right) - (1-\rho) \sum_{\pi_{n,t} < \pi_t} \frac{\omega_{n,t-1}}{1-\rho} \left(\pi_t - \pi_{n,t}\right), \tag{4}$$

where $\rho = \sum_{\pi_{n,t} > \pi_t} \omega_{n,t-1}$ is SRPI. We can simplify the expression further to

$$0 = \rho dr^{+} - (1-\rho) dr^{-}, \tag{5}$$

where dr^{+} and dr^{-} denote the average relative price increase and decrease, respectively.[7] The second property then follows directly from rearranging (5):

$$\frac{\rho}{1-\rho} = \frac{dr^{-}}{dr^{+}}. \tag{6}$$

Equivalently, SRPI is equal to the ratio of the average relative price decrease to the sum of the average relative price increase and the average relative price decrease:

$$\rho = \frac{dr^{-}}{dr^{+} + dr^{-}}. \tag{7}$$

2.2 SRPI and inflation

We now describe a stylized example in which a negative relationship between inflation and SRPI arises from relative price changes within a stable regime.

Suppose that idiosyncratic shocks drive the distribution of nominal price changes for different categories. If one category receives a particularly large shock, it will not necessarily be offset by a shock to a different category with the opposite sign, and inflation will tend to move in the direction of the price change for that category.[8] In this case, high inflation would correspond to a large price increase for one category, with most prices rising less than the inflation rate. In other words, inflation and SRPI would be negatively correlated.

While we will see that this intuitive relationship is present in the data, we also agree with Ball and Mankiw (1999), who note that in the classical model, "there is no obvious reason that the behavior of the aggregate price level is related to the distribution of relative prices." For example, suppose that the distribution of nominal price changes was driven by a large

[7] Note that the average relative price decrease, dr^{-}, is a positive number, the opposite of the average relative price change for relative changes less than zero.

[8] If there is heterogeneity across sectors and fat-tailed shocks, then this relationship will be even stronger.

number of correlated shocks. In this case, if the common primary shock drives prices up in many categories, then we would see high inflation correspond to a large share of relative price increases. Thus, we would expect that inflation and SRPI are positively correlated. But, even though relative prices are changing, the property that the shock is common to a large number of categories also suggests that we are dealing with a general inflation shock, rather than a relative price shock, and we may not be looking at a stable inflation regime.

These two extreme cases are differentiated by the extent to which inflation is driven by categories with large or small relative price changes. This suggests a variance decomposition where we first modify (3) so that categories are split into those with absolute relative price changes $dr_{n,t}$ smaller and larger than a threshold X:

$$\pi_t = \sum_{|dr_{n,t}|>X} \omega_{n,t-1}\pi_{n,t} + \sum_{|dr_{n,t}|<X} \omega_{n,t-1}\pi_{n,t}.$$

The variance of inflation is the sum of the two variances attributable to categories with small relative price changes and large relative price changes, plus a covariance term:

$$var\left(\pi_t\right) = var\left(\sum_{|dr_{n,t}|>X} \omega_{n,t-1}\pi_{n,t}\right) + var\left(\sum_{|dr_{n,t}|<X} \omega_{n,t-1}\pi_{n,t}\right) + 2cov().$$

This variance decomposition is related to Ball and Mankiw's asymmetry measure AsymX in its dependence on a threshold X for large relative price changes. Although most of our analysis below will focus on the relationship between inflation and SRPI, which does not require the choice of a cutoff value, we will use this variance decomposition as a complementary measure.

3 Inflation and SRPI in a stable regime (1995 - February 2020)

We now turn to U.S. data, focusing on the period from 1995 to February 2020. We choose this period because inflation was stable in the sense that volatility was low by historical standards. Furthermore, average inflation was close to the 2 percent target that the Fed specified in 2012. A-priori, we see this as a period for which shocks that moved relative prices were likely to have been the main source of movements in inflation (Borio, Disyatat, Xia and Zakrajšek (2021) make a similar point).

Figure 1a is a scatter plot of monthly inflation against SRPI from January 1995 to February 2020. The figure accords with the intuition above: in months when the share of expenditures experiencing relative price increases is high, inflation tends to be low, and vice versa. There is a close negative relationship between the two series, with a correlation coefficient of -0.83, although the relationship is clearly nonlinear. The solid line plots predicted inflation based on a local polynomial regression, and the dashed lines are two-standard deviation prediction intervals. Note that while average inflation over this period is 1.8 percent, predicted inflation conditional on SRPI being at its mean (0.53), is 2.05 percent. This observation will be the basis for our approach to underlying inflation in Section 4: we remove the effects of relative price changes by looking at the inflation rate predicted for the mean share of relative price increases.

Table 1 provides complementary information on relative price changes as a source of inflation volatility. It displays the share of inflation variance due to categories with absolute relative price change greater than cutoffs ranging from 0.25 to 4 percent per month. The table also displays the corresponding expenditure shares. The columns labeled (a) are for the stable-inflation period, and the results are striking: focusing on the last row, categories with absolute relative price change greater than 4 percent account for just 2 percent of expenditures on average, but they account for 66 percent of the variance of inflation. (We discuss the columns labeled (b) below.)

4 Inflation outside a known stable regime

We have established that there was a systematic relationship between monthly inflation and SRPI from 1995 to 2019, when we have an *a priori* basis for treating inflation and the monetary policy environment as stable. We now flip this reasoning on its head: we assess the stability of inflation in other periods through the lens of the relationship between inflation and the distribution of relative price changes. First, to what extent can the high inflation in the COVID-19 pandemic be accounted for by variation in the distribution of relative price changes, conditional on the relationship between the two identified in the period preceding COVID-19? Second, we examine the entire post-1959 period: how did the relationship between inflation and SRPI shift over time, and what is the picture of "underlying" inflation that emerges when we control for the distribution of relative price changes? Finally, we use that analysis to run simple Phillips curve regressions, controlling for SRPI.

Table 1: Relative price changes as a source of inflation volatility

X	variance share		expenditure share	
	(a)	(b)	(a)	(b)
0.25	0.63	0.65	0.48	0.64
0.5	0.60	0.53	0.27	0.38
1	0.63	0.51	0.12	0.18
2	0.71	0.51	0.04	0.08
3	0.68	0.48	0.02	0.04
4	0.66	0.42	0.02	0.02

Note: The first two columns are the shares of inflation variance due to expenditure components with monthly percent relative price changes greater than X, and the second two columns are the expenditure shares for these components. Columns labeled (a) cover the period 1995-February 2020, and columns labeled (b) cover the period March 2020 - October 2024

4.1 Inflation during and after the COVID-19 pandemic

From March 2021 to July 2023, PCE inflation in the U.S. averaged 5.2 percent. Excluding readings from earlier in 2023, this is the highest inflation rate over a comparable span since

1983, when inflation was rapidly decreasing but was clearly not low and stable. In the first few months of the current episode, most commentary attributed high inflation to unusual shocks hitting particular consumption categories, along the lines of the intuition in Section 2. Late in 2021, commentary increasingly attributed high inflation to monetary policy or other aggregate factors that monetary policy presumably could have offset. The quantitative relationship displayed in Figure 1a provides a formal way to assess whether (and when) inflation deviated from the systematic relationship with SRPI that characterized the stable period from 1995 to February 2020.

Figure 1b overlays data from the pandemic period on the estimated relationship from the stable inflation period displayed in Figure 1a with associated mean and two-standard error bands, the solid and dashed lines, respectively. The points represent the pandemic period, starting in March 2020, with each successive 12-month period, and the most recent eight months, denoted by a different color and shape.

For the first year of the pandemic, the monthly inflation rate was extremely volatile, but in each month it lay within the two-standard-error band characterizing the pre-COVID-19 relationship. In contrast, from March 2021 through February 2022, and again from March 2022 to February 2023, inflation was above the upper edge of the band in 10 of the 12 months, and above the predicted mean in the other two months. In the year starting in March 2023, there was a meaningful return toward the pre-COVID-19 relationship: only three months saw inflation above the upper edge of the band, and in three months it was below the predicted mean. This pattern continued in the last eight months, with inflation in six of those months well within the band, and in the other two just barely above.

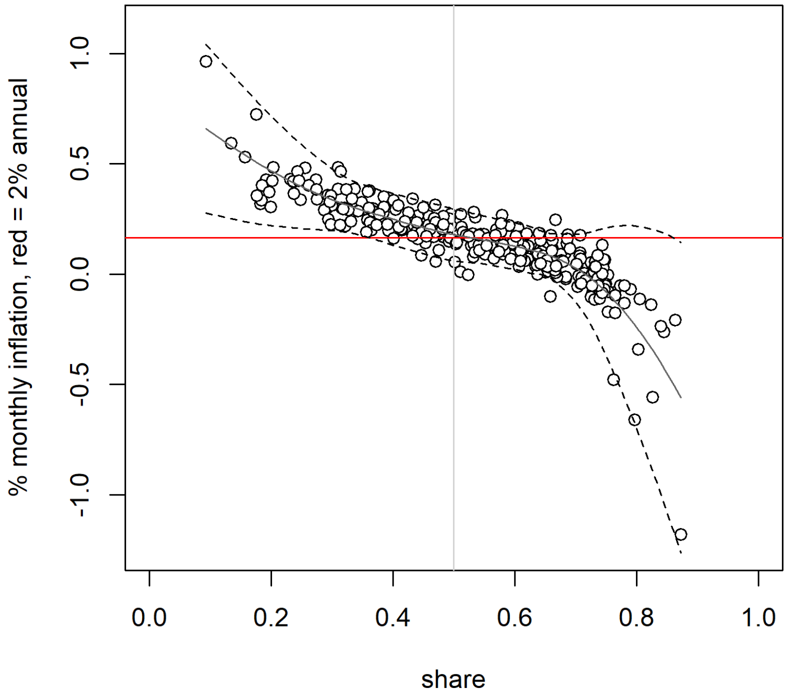
The variance decomposition of inflation for the pandemic period, Table, (1) columns (b), provides complementary information for the pandemic period as a whole. The distribution of relative price changes became more dispersed, with a higher share of expenditures with large relative price changes for every cutoff in the table. And yet, the share of inflation variance accounted for by categories with large relative price changes *decreased* for all but the smallest cutoff (0.25 percent). That is, the variance of inflation starting in March 2020 was explained mainly by the variance of *small* relative price changes, consistent with an upward shift of the relationship between inflation and SRPI, as opposed to movements along the existing curve.

4.2 The shifting relationship between inflation and the distribution of relative price changes

The behavior of inflation during the COVID-19 period suggests that the relationship between inflation and SRPI cannot be stable over the entire 1959-2019 period, and Figure 2 confirms this instability. We plot the two standard error bands from the 1995-2019 regression together with all the points from 1959 through 1994. For the most part, these points do not lie within the error bands. This is reminiscent of the Phillips curve: the relationship can be stable within a regime but is unstable across regimes. To be clear, these figures should **not** be thought of as Phillips-curve relationships because the Phillips curve is a relationship between inflation and the level of aggregate activity. These figures simply show a shifting relationship between inflation and measures of asymmetry in price changes.

Figure 1: Inflation and SRPI

(a) January 1995 - February 2020



(b) March 2020 - October 2024

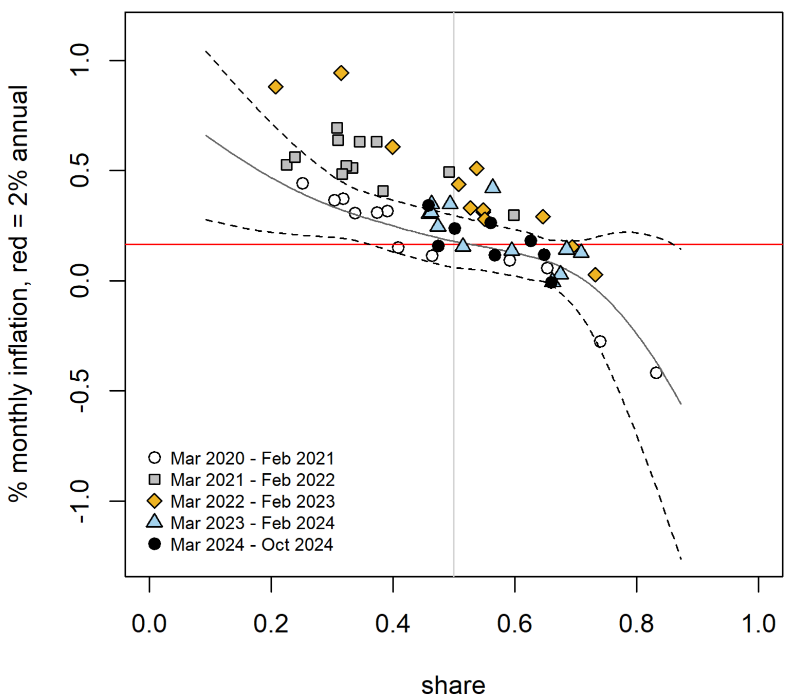


Figure 2: Shifting Relationship between Inflation and SRPI: 1959 - 1995

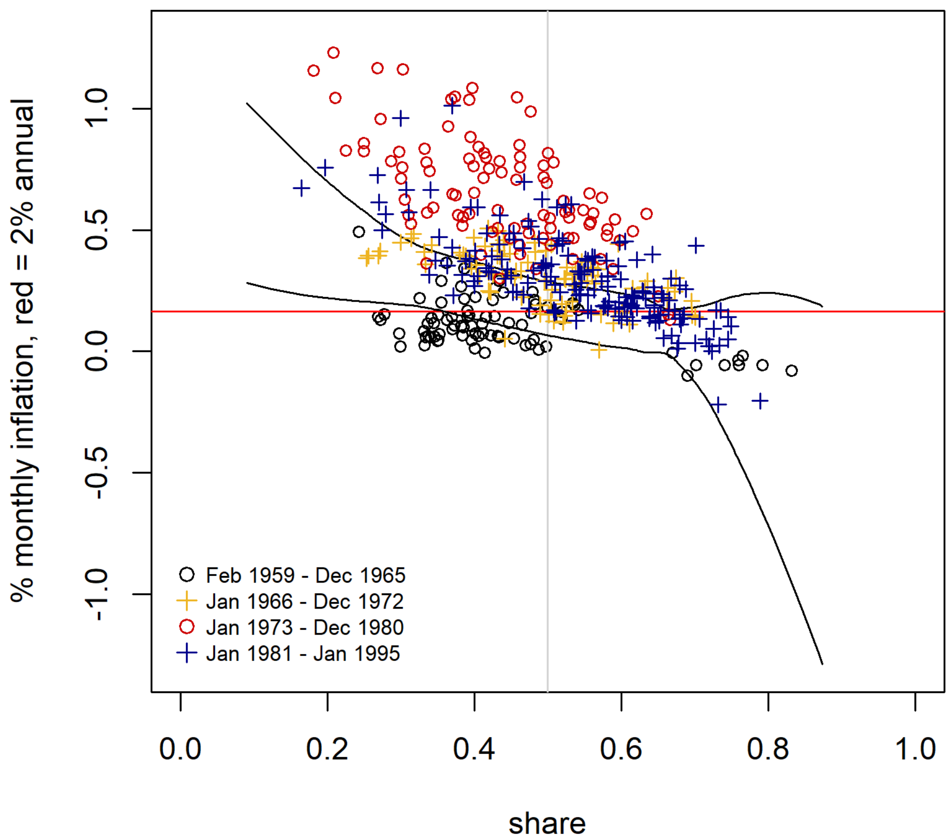
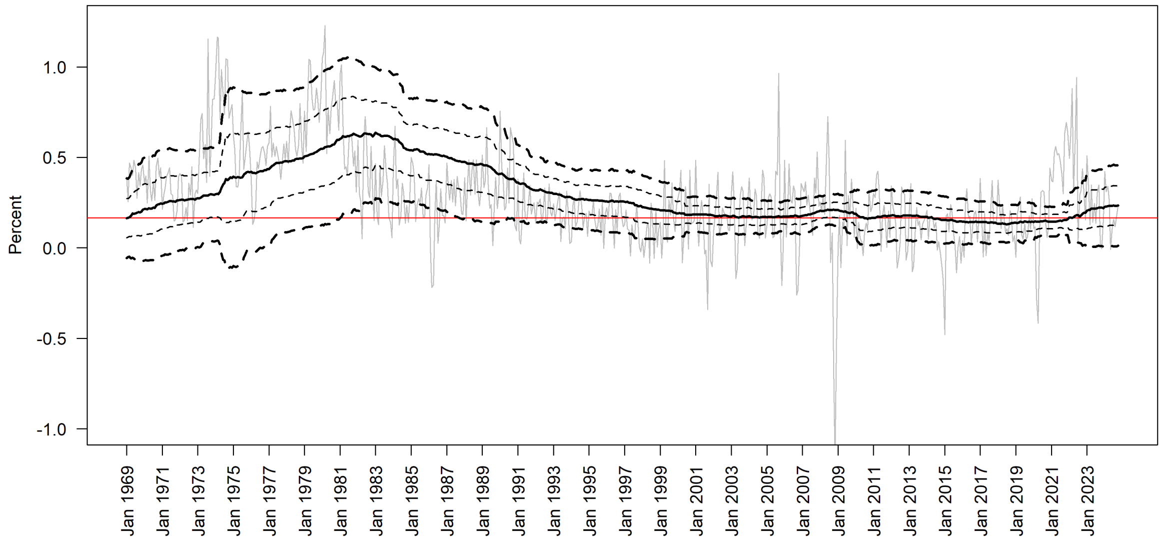
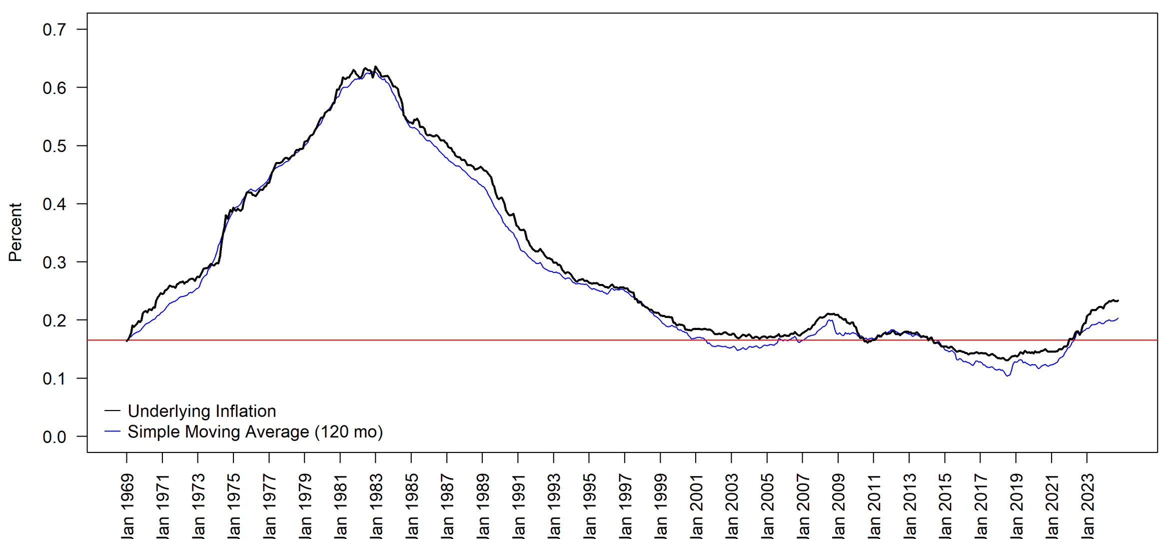


Figure 3: Underlying Inflation

(a) Underlying Inflation with one- and two-standard error bands



(b) Underlying Inflation and moving average



We now combine two seemingly conflicting messages from the paper thus far. First, in a stable monetary regime, there is a systematic relationship between inflation and SRPI. Second, that relationship shifts over time when the monetary regime is not stable. We proceed under the assumption that there is always a "locally stable" regime, so that we can use the local relationship between inflation and SRPI to estimate the underlying inflation rate associated with that regime. We define the level of underlying inflation in a given month as the inflation rate implied by the rolling-window mean level of SRPI. Specifically, we use a rolling window of the point prediction from the local polynomial regression used above; the point prediction is the value of inflation that the regression predicts conditioning on the mean share of relative price increases in that same window.

If the window for estimating the local polynomials is very narrow, then the fitted values of inflation from those regressions will be very close to the actual inflation rates, which is desirable. But a narrow window will also mean a high risk of overfitting and will produce an underlying inflation series that is so volatile that it is useless. Conversely, if the window is very wide, then the fit of the local polynomials will be poor—the "locally stable regime" assumption will be violated—and the underlying inflation series will be extremely smooth. We choose a 120-month window (10 years) for the local polynomial as it balances the trade-off between the R^2 of the local polynomials and the variance of the underlying inflation series. With a 120-month window, the variance of the underlying inflation series is 0.02, and the average R^2 of the local polynomials is 63 percent.

Figure 3a plots underlying inflation together from 1973 to September 2024 using a 120-month rolling window, together with one- and two-standard deviation confidence intervals. As in other figures, the red horizontal line corresponds to 2 percent inflation at an annual rate. The underlying inflation series is quite smooth. The two-standard deviation confidence interval is generally wide, but it does narrow considerably as inflation declines in the 1980s and early 1990s. Notably, the one-standard-deviation band contains 2 percent starting in 1997, and for virtually the entire subsequent period up to the present. In the wake of the recent high inflation, the confidence band has widened significantly to where it was in 1991. However, the mean level of underlying inflation today is much lower. The smoothness of underlying inflation and the fact that it is estimated using a 10-year window raises the question of whether we are simply reproducing a 10-year moving average of inflation. Figure 3b plots underlying inflation together with the simple 10-year moving average of monthly inflation. While the two series generally move together, underlying inflation is less smooth, and at certain points in time there have been nontrivial differences. For example, the high inflation that occurred before the financial crisis pushed up our underlying inflation pressure more—and more persistently—than it pushed up the simple moving average. Conversely, the low inflation period starting in 2015 was reflected more in the simple moving average than in underlying inflation. And in the wake of COVID-19, underlying inflation has risen much more than the simple moving average.

5 An augmented Phillips curve

Thus far, we have analyzed inflation and its component price changes in isolation: inflation varies systematically with SRPI in a stable regime, and the time-varying relationship between inflation and SRPI can be used to generate a measure of underlying inflation. We now bring the Phillips curve into the discussion by assessing how much of the *residual* inflation variation can be explained by the unemployment rate.

We run 60-month rolling window regressions of inflation on lagged 12-month inflation, the difference between unemployment and the natural rate produced by the Congressional Budget Office (CBO), and a cubic polynomial in SRPI. The cubic polynomial is a convenient parametric approximation to the local polynomial relationship estimated in Figure 1a. This decomposition of inflation into a component explained by the relative price change distribution and a component explained by unemployment is close in spirit to the approach taken by Ball et al. (2022).

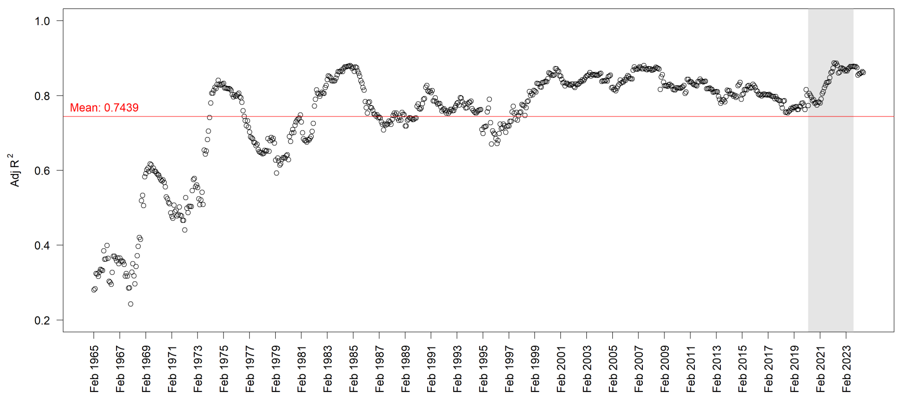
Figure 4a plots the R^2 of the regression over time, Figure 4b plots the coefficient on the unemployment rate, and Figure 4c plots the coefficient on lagged inflation. Note first that this *monthly* Phillips curve regression explains almost 75 percent of the variation in inflation. Next, note that inflation persistence, as represented by the coefficient on lagged 12-month inflation, is often negligible and at times negative. In contrast, the simple first-order autocorrelation of monthly inflation is greater than zero 96 percent of the time for an analogous rolling window calculation. Thus, the observed persistence in inflation can be explained in part by persistence in SRPI (and, as others have noted, by persistence in the unemployment rate). Finally, interpreting the coefficient on the unemployment gap as the slope of the Phillips curve, we see that it varies significantly over time; while there have been extended periods when the slope was essentially zero (e.g., 2015 to 2018), there are other periods when we estimate the Phillips curve to have been quite steep, such as the late 1960s and the early 1990s. The time-variation in the slope of the Phillips curve is the subject of a large literature, and recent contributions include Ball and Mazumder (2011), Blanchard (2016), Stock and Watson (2020), Hazell, Herreño, Nakamura and Steinsson (2022), and references therein.

6 Conclusion

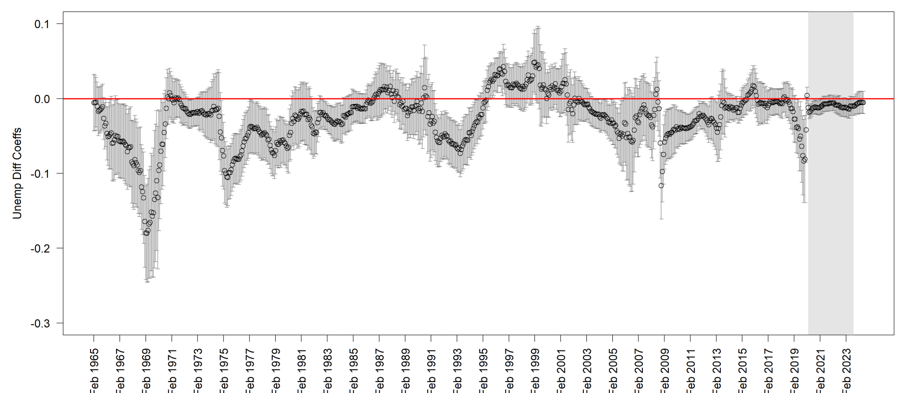
Even in a successful inflation targeting regime, inflation fluctuates from month to month, and it is important for policymakers, researchers and market participants to have means to evaluate whether those fluctuations are consistent with an ongoing stable regime. This issue has become especially salient since 2021, when inflation rose dramatically in the U.S. and many other countries. We show that in a stable inflation regime, like the U.S. was in from 1995 until the COVID-19 pandemic, the monthly inflation rate is well explained by a statistic representing the skewness of the distribution of relative price changes, the share of relative price increases (SRPI). From this starting point, our paper makes three main contributions. First, we use the estimated relationship between monthly inflation and SRPI to evaluate the behavior of monthly inflation starting in March 2020: over what part of the COVID-19 and post-COVID-19 sample was inflation obeying its pre-pandemic relationship

Figure 4: Phillips curve regressions

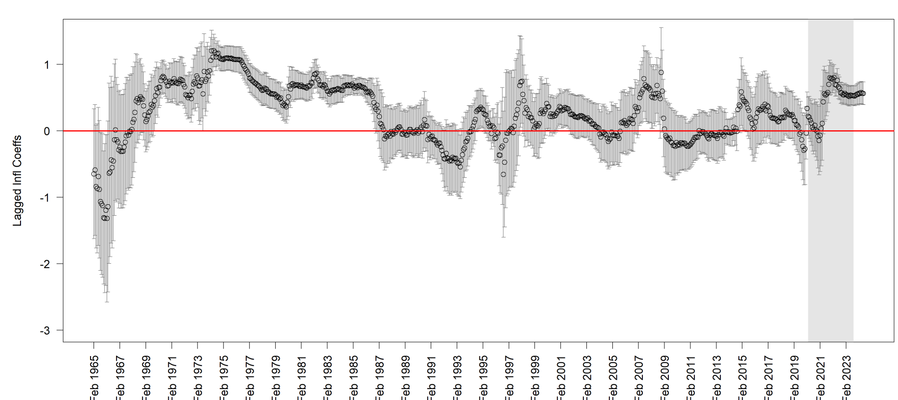
(a) Adjusted R^2



(b) Coefficient on unemployment gap



(c) Coefficient on lagged inflation



to SRPI? Second, we show how the time-varying relationship between inflation and SRPI can be used to estimate the underlying inflation rate at any point in time, without knowledge of a stable regime. Our measure complements others used by central banks to infer underlying inflation. Third, we use the relationship between inflation and SRPI to estimate Phillips curves: unemployment helps to explain the residual inflation variation that is not accounted for by SRPI. Other countries and central banks have also experienced extended periods of low and stable inflation, and in future work we plan to investigate whether they display a similar relationship between inflation and SRPI.

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