

The Long-term Effects of Inflation on Inflation Expectations

Based on BFI Working Paper No. 2023-101, “*The Long-term Effects of Inflation on Inflation Expectations*,” by Fabio Braggion, Tilburg University; Felix von Meyerinck, University of Zurich; Nic Schaub, WHU; and Michael Weber, University of Chicago

German households living in areas with higher local inflation during the hyperinflation of the 1920s expect higher inflation today, suggesting that inflationary shocks have a long-lasting impact on attitudes toward inflation.

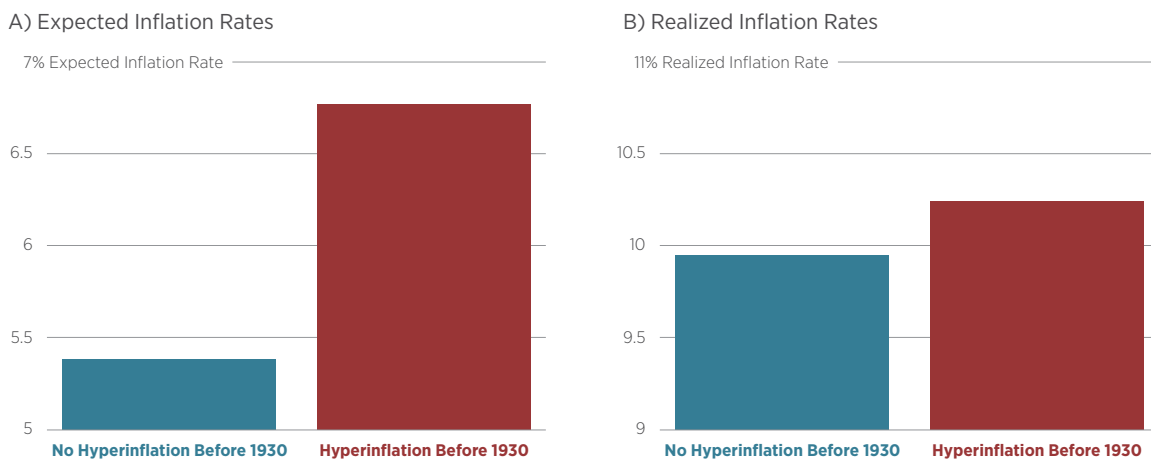
While research has shown how current inflation can shape people’s expectations of future inflation, we know little about whether or how such expectations are transmitted to future generations. Understanding inflationary expectations across generations is important for central bankers and for researchers hoping to properly account for this phenomenon in their policymaking and modeling.

The authors study this question by focusing on Germany, a country that experienced severe hyperinflation in 1922-23 and which still resonates today, at least anecdotally. To bring some empirics to bear, the authors collect data on local inflation of 633 German towns between 1920

and 1924, as well as data on contemporary inflation expectations of households from three large-scale surveys. They link today’s inflation expectations with historical inflation either at the zip code level or the county level. The merged data allow for comparisons of households whose ancestors likely experienced different inflation in the early 1920s but have the same observable characteristics today, are surveyed at the same point in time, and live in the same region. Before describing the finding from this analysis, let us first consider suggestive evidence from across Europe.

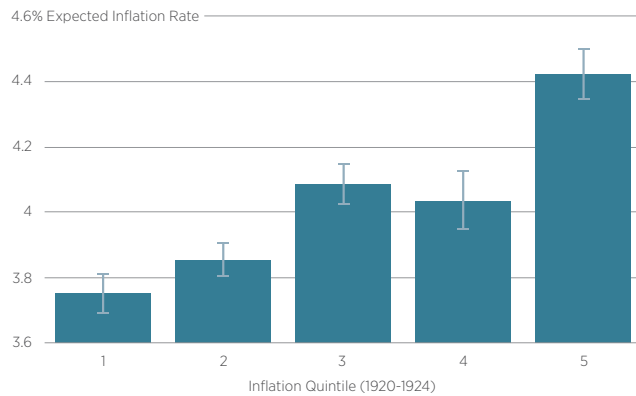
Figure 1 shows households’ inflation expectations in 2022 for 2023 (Panel A), as well as realized inflation in

Figure 1 • Past Hyperinflations and Today’s Inflation Expectations



Note: This figure shows average expected rates of inflation in 2022 for the year 2023 (Panel A) and average realized rates of inflation for the year 2022 (Panel B) separately for European countries that experienced a hyperinflation before 1930 and for European countries that did not experience a hyperinflation before 1930. Data on expected and realized inflation rates are from the Organization for Economic Co-operation and Development (OECD) and data on historical hyperinflations are from Hanke and Krus (2013).

Figure 2 • Local Inflation in the 1920s and Today's Inflation Expectations



Note: This figure shows average expected rates of inflation over the next 12 months for households living in zip codes with different historical local inflation. The zip codes are sorted into quintiles based on the cumulative local inflation between January 1920 and December 1924. Zip codes are assigned to the closest town for which the authors have historical inflation data within a 20-kilometer radius. The sample is based on the Gesellschaft für Konsumforschung (GfK) Consumer Climate MAXX survey. The figure shows point estimates together with 99% confidence intervals.

2022 (Panel B) separately for European countries that did not experience a hyperinflation before 1930 (left bars) and for European countries that experienced a hyperinflation before 1930 (right bars). Panel A reveals that individuals living in countries with a hyperinflation in the distant past have inflation expectations that are approximately 1.4 percentage points higher than inflation expectations of individuals living in countries without such a history. In contrast, Panel B shows the difference in realized inflation rates between the two groups of countries to be only 0.3 percentage points and thus very similar. Thus, we can see that inflation expectations are shaped by inflation shocks in the distant past rather than only by current inflation.

As for Germany, Figure 2 illustrates the authors' main finding. The authors sort German towns into quintiles based on their cumulative inflation between 1920 and 1924. For each quintile, they compute the average inflation expected by households living in those towns today, they then plot average inflation expectations against historical inflation quintiles. Consistent with Figure 1, **the authors find a strongly positive relationship between historical inflation and**

contemporary inflation expectations, suggesting that individuals living in towns with high inflation in the 1920s expect higher inflation today. Moving from the quintile with the lowest inflation to the quintile with the highest inflation increases expected inflation by 0.7 percentage points, which corresponds to around 90% of the average realized annual rate of inflation during the time period covered by the surveys. This result points towards a long-lasting effect of inflationary shocks on inflation expectations. (Polish households residing in formerly German areas reveal similar effects.)

The authors consider two likely mechanisms for how German hyperinflation persists locally across generations:

- Transmission from parents to children. To test this first channel, the authors analyze whether results differ for households with and without a migration background to show that the link between past inflation and today's inflation expectations is weaker for households with a migration background. This weaker association is consistent with such households being spared from the experience of the German hyperinflation.
- Transmission over time through local institutions. In this case, the authors investigate the media's role by analyzing geographical variation in newspaper coverage of inflation in Germany. They find that newspapers located in areas with higher historical inflation publish more articles on inflation today, suggesting that the transmission of the experience of hyperinflation takes place, at least in part, through local institutions.

Bottom Line: Inflation expectations appear transmittable across generations. Importantly for policymakers today, this finding suggests that the recent surge in inflation will have lasting effects, resulting in elevated inflation expectations around the globe for a prolonged period of time, even after current inflation rates recede.

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