

## [The Curse of Inflation](#)

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A classical problem in macroeconomics is to explain why money is not neutral, that is, why monetary policy has an effect on employment and output. In this paper, we show that two psychological assumptions---concern for fairness and failure to infer information rationally---naturally explain the nonneutrality of money.

These two psychological assumptions are well documented, and together they shape the perception that consumers have of price increases caused by expansionary monetary policy. A trove of empirical evidence suggests that people care about fairness and dislike paying prices that they view as unfair. In a seminal study, Kahneman, Knetsch and Thaler [1986] present evidence that while most people regard it as acceptable for firms to raise prices in response to higher marginal costs, they find it unfair for firms to raise prices in response to elevated demand. Because consumers typically do not know firms' marginal costs, their perceptions of how fairly firms price their goods depend upon their estimates of these marginal costs. Rational consumers should be able to infer marginal costs in equilibrium. Yet copious evidence indicates that people infer less than rationally by failing to glean the informational content of other people's actions. Consumers who underinfer the hidden information that prices convey about marginal cost misattribute high prices to high markups rather than to high marginal costs and thus find rising prices unfair.

Our analysis is based on a model that incorporates into the monopolistic-competition framework of Blanchard and Kiyotaki [1987] the psychological assumptions that (1) consumers dislike paying a price that exceeds some "fair" markup on firms' marginal costs, and (2) consumers do not know firms' marginal costs and fail to infer them from prices.

The first assumption in isolation renders the economy more competitive without changing any of its qualitative properties; in particular, money remains neutral. The two assumptions together cause money to be nonneutral: greater money supply induces lower monopolistic markups, higher hours worked, and higher output. Whereas an increase in money supply is expansionary, it decreases the fairness of transactions perceived by consumers to such an extent that it reduces overall welfare. The cost of inflation is a psychological one that derives from a mistaken belief by consumers that transactions have become less fair.

In fact, it is this misperception that makes an increase in money supply expansionary: consumers misattribute the higher prices arising from higher money supply to higher markups; the misperception of higher markups angers them and makes their demand for goods more elastic; in response, monopolists reduce their markups, thus stimulating economic activity. Consumers' misperception after an increase in money supply accord well with the survey responses in Shiller [1996], in which 85% of respondents report that they dislike inflation because when they "go to the store and see that prices are higher", they "feel a little angry" at the "greed" of "manufacturers", "store owners", and "businesses".