

Chapter 3

Monetary Policy

Now that we've talked about how the price level is determined, let's double back and ask why we should care about the price level in the first place. If the money supply doubles, and all prices (including wages) double in response, has anything important really changed?

Probably not. Instead of costing \$5, a hamburger now costs \$10. Alice has to work just as many hours to earn that \$10 hamburger today as she worked to earn a \$5 hamburger yesterday. Instead of carrying \$25 in her pocket (enough to buy five hamburgers), she'll carry \$50—still enough to buy five hamburgers. Instead of keeping \$1,000 in her chequing account, she'll keep \$2,000—the same fraction of her income that she's always kept.

You might worry about the effect on borrowers and lenders: If Alice initially owes Bob \$10 (the price of two hamburgers), then after the price level doubles, she gets to pay him back with a debased \$10 that buys only one hamburger. That makes her richer and him poorer. But that's an issue only if Alice and Bob fail to anticipate the price change. If Bob knows he lives in a world where prices sometimes jump, he can always insist on loan contracts with automatic adjustment clauses, so that Alice is always required to repay enough dollars to buy two hamburgers, whatever that number of dollars might be.

And even if Bob's foresight fails him, so that he fails to include that clause and takes a big loss when the price level doubles, it's not the kind of loss economists usually worry too much about. That's because Bob's loss is Alice's gain, so that *overall* the populace (which includes both Alice and Bob) is no better or worse off than before.

So a one-time jump in the price level is, at least to a very good approximation, nothing to worry about. You might be tempted to conclude that

inflation is nothing to worry about either. After all, inflation is just an ongoing series of jumps in the price level, right?

Not so! Let's think this through from the beginning again.

On Monday morning, Alice the average citizen is holding 10 weeks' income in her purse and her checking account.

On Monday at noon, the money supply doubles, and now Alice holds 20 weeks' income.¹² But she only wants to hold 10 weeks' income, and therefore tries to get rid of money by buying things. Eventually prices are bid up to twice this morning's level, and Alice now happily holds her share of the new money, which is equal to 10 weeks' income—her goal all along.

Now tweak the story: On Monday at noon, the government doubles the money supply *and announces plans to double it again every day at noon*. As a result, Alice decides that, going forward, she wants to hold only 8 weeks' income, not 10. Why? Because she now expects an ongoing inflation—which means she expects the money in her pocket and her checking account to lose value overnight. That prospect makes holding money less attractive.

So on Monday afternoon, Alice (along with many others) tries to get rid of money by buying things. Eventually, prices get bid up to twice this morning's level, leaving Alice holding 10 weeks' income, *which is still more than she wants*. Therefore she continues trying to buy things, driving prices up *still further*. If the money supply doubles on Monday, with further increases expected to follow on Tuesday, Wednesday, Thursday and Friday, then the price level must *more* than double on Monday.

More succinctly: *At some point during the onset of an inflation, the price level must rise faster than the money supply*. Friedman called this phenomenon *overshooting*, which might have been an unfortunate vocabulary choice because it seems to suggest that someone has made a mistake or missed a target. Nothing of the sort is true; Alice *wants* to reduce the real value of her money holdings—the number of hamburgers her pocket change can buy and the number of home repairs her checking account balance can cover—and by the end of the day she's done exactly that.

¹² Where did the extra money come from? Maybe she sold a whole lot of paper clips to the government. Or maybe she sold her used couch to Bob, who was looking to get rid of money after he sold a bunch of paper clips.

Unfortunately, Alice's life just got a little worse. Instead of having enough cash in her pocket to buy five hamburgers, she's got enough to buy four, which will be an annoyance on the occasional day when she has a gargantuan appetite. Instead of having 10 weeks' income in her checking account, she has 8—which means she'll occasionally have to delay a purchase to avoid an overdraft. That loss to Alice is not offset by any gain to anyone else—and that's the kind of loss economists care about.

It might be a pretty small loss, but a great many others are of course suffering in a similar way, and some more than others. Bob, who runs a small shop, notices that in these new inflationary times, the cash in his register is losing value as it sits idle, so instead of keeping 20 hamburgers' worth of cash in the register as he's always done, he now keeps only (say) 16 hamburgers' worth. Now he runs low on change a little more often, aggravating a few extra customers.

If that still sounds small, it's because it *is* small, at least when the rate of inflation is low. At higher rates of inflation, people hold so little money that their lives are substantially disrupted. The economist John Maynard Keynes was in Germany during the inflation of the 1920s, when prices were rising so rapidly that a beer purchased at midnight was substantially more expensive than a beer purchased at 9 p.m. When he thought he would want three beers over the course of the evening, he bought them all as early as possible and drank them slowly (note that Keynes, like Alice, was trying to get rid of money by buying things). All his life, Keynes remembered Germany as a place where he'd drunk a lot of warm beer.

For a more extreme example, consider the Hungarian inflation following World War II, when prices, on average, were multiplying by a factor of about 100 every month. Imagine a cup of coffee that costs 10 cents on January 1, \$10 on February 1, \$1,000 on March 1, \$100,000 on April 1, \$10 million on May 1, \$1 billion on June 1, \$100 billion on July 1, and \$10 trillion on August 1. Wages were adjusted, and workers were paid, three times a day. Of course it was imperative to spend your paycheck immediately before it lost almost its entire value, which means that in a typical family you had one spouse working and the other running back and forth from the workplace to the shops, collecting the checks, spending the money, and rushing back to the workplace in time for the next check.

So, like many things, inflation in small doses is a little bit bad and inflation in higher doses is extremely bad. But why put up with any badness you don't have to put up with? It seems like the best scenario is no inflation at all—and the recipe to accomplish that scenario is zero growth in the money supply.

In fact, why not go even further? If Alice enjoys holding 10 weeks' income in the form of money, perhaps she'd be even happier holding 12 weeks' income. Maybe she could use a little nudge in that direction! We could provide that nudge with a *negative* inflation rate (also called *deflation*), which causes the money in Alice's pocket to grow over time in value, thus encouraging her to hold more of it.

Hold on a minute! If holding a little extra money makes Alice a little happier, why does she need a nudge? The answer is that when Alice chooses to hold more money—and hence to spend *less* money—she's helping to keep the price level down, which benefits not just her but Bob, Carol, David, Evelyn, and countless others. And if they in turn hold more money, then Alice shares in the benefits. As a result, everyone can be better off if everyone gets a little nudge. So Friedman was led to contemplate a negative inflation rate, driven by a steady *reduction* in the money supply. (The government could, for example, collect some taxes in cash and burn 10 percent of the proceeds.)

On the other hand, money supply growth has some advantages. If the government pays for paper clips with newly minted money, then it doesn't have to pay for paper clips by taxing (say) coffee, and that's good for everyone who buys or sells coffee. After weighing this and other factors, Friedman in the end endorsed a small but positive inflation rate on the order of about 2 percent a year, but, believing that 2 percent a year was likely to be politically infeasible, declared himself perfectly willing to settle for as much as 5 percent.¹³

But we've been ignoring yet another set of issues. In our story, the money supply increases, then Alice and Bob try to spend the extra money, then prices go up. In the long run, that really is all that matters. But in the short run, the price adjustments take place in fits and starts, which can have important consequences. We'll turn to those next.

¹³ The US inflation rate peaked at almost 14 percent in 1980 and at nearly 13 percent in Canada in 1981. Friedman might have been both surprised and pleased to learn that over the past decade, the inflation rate has rarely risen above 2 percent—largely because the authorities have taken Friedman's prescriptions to heart.