How Not to Stop Inflation

BY MILTON FRIEDMAN

EDITOR'S NOTE: *High and rising inflation can tempt policymakers to enact quick "fixes," such as wage and price controls. But as Milton Friedman argues in this speech, delivered in February 1966 to the Detroit chapter of the University of Chicago Alumni Association, such controls don't get at the fundamental source of inflation — excessive expansion of the money supply — and eventually make the problem worse. While in effect, the controls often result in shortages of goods, and when they are removed, the inflationary pressures that have been bottled up artificially tend to explode.*

Only five years after Friedman delivered this speech, President Richard Nixon enacted a program of wage and price controls. The system was supposed to last only 90 days but proved to be far less temporary, surviving in modified form for nearly three years. The results were predictable. The legislation was greeted with initial enthusiasm, but its problems were quickly apparent. By the mid-1970s, inflation had reached double digits. In his memoirs, Friedman wrote that Nixon's decision to impose the controls "did far more harm to the country than any of the later actions that led to his resignation."

Friedman, who won the Nobel Prize in economics in 1976, taught at the University of Chicago from 1946 to 1977 and is now a senior research fellow at the Hoover Institution. This speech, which has been edited for length, has never before been published. The full text is available at our Web site: www.richmondfed.org

Let me turn to my topic for tonight, "How not to stop inflation." As you know, the word "inflation" has a great many different meanings and people attribute different conceptions to it. What we mostly mean by it, and what I shall mean by it, is a rise in prices, in prices in general. In the past year or so, we have been having a tendency for a rather widespread rise in prices. That tendency seems to give every sign of intensifying and increasing, so we have a real problem of inflation.

If inflation does consist in a rise of prices — in the price of meat going up, of wages, and of all sorts of things — then it seems most natural to say that the way to stop it is to stop prices from rising. If you want to stop inflation, let's just pass a law saying that no price shall rise. That will stop it. The main theme of my talk tonight is to say that this tempting way to stop inflation is the way not to stop it. It will not in fact cure inflation, but even if it did, it would be a cure that is worse than the disease. This approach is like saying that if it's getting too hot in this room, the way to solve the problem is to break the thermometer.

Milton Friedman

This analogy is suggestive but does not go far enough. If you broke the thermometer, that would neither make it hotter nor do any other harm. It would just simply prevent a signal of the rising temperature from being seen. Prices partly do measure pressure, but they also affect the course of events. Perhaps a better analogy is the following: When it gets too hot in this room, close all the outlets from the furnace while letting the furnace run full blast until it bursts. That is more nearly a correct analogy to holding down particular wages and prices as a means of stopping inflation.

The question is, why is that a bad way to stop inflation? What harm does it do? In trying to suggest to you the answer to those questions, I want to talk about two main points. The first point is to discuss what the source of inflation is. If I were putting it as a topic for a Sunday sermon and could speak French, I would say, instead of "Cherchez la femme" — "Cherchez la monnaie." "Look for the money." Inflation is always and everywhere a monetary phenomenon. That is the first point I want to discuss.

The second point I want to discuss is that while we ordinarily talk about distinguishing between inflation and deflation, between rising prices and falling prices, there's another distinction that I think is even more important. That is the distinction between open inflation and suppressed inflation, between an inflation in which prices are permitted to rise and an inflation in which prices are held down. While inflation is bad, it is far better to have it open than it is to have it suppressed. Suppressed inflation is the case in which the cure is worse than the disease, like pouring coal into the furnace while locking all places where the steam can get out until the furnace blows up.

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Let me turn to the first point. The common approach to inflation is to think that inflation, being a rise in prices, results from a rise in costs. With rare exceptions, every businessman and every ordinary person tends to think that the reason why prices go up is because they are pushed up because costs go up. This may take the form of a so-called cost-push spiral or wage-price spiral or other fancy terms, or it may take the simpler form of each man thinking he has to raise prices because his costs have gone up. It is perfectly natural that people should think this way because to each individual separately that is the way it looks. But the fact is that this has almost never been the source of inflation. It's the external manifestation of inflation, but not its source.

Indeed, this illustrates a much more general principle. What makes economics, in my opinion, a fascinating subject is that for almost any important proposition in economics, what's true for the individual is precisely the opposite of what's true for everybody together. That's why you have so many widespread economic fallacies. People generalize from their individual experience, and yet that is precisely the opposite of what holds for the community as a whole. Let me illustrate that in a very simple way, which is also related to the problem of inflation. Each one of us separately thinks he can decide how many of these green pieces of paper to keep in his pocket — subject, of course, to his total wealth. If any one of us wants to keep $20 more in his pocket, all he has to do is cash a check for $20 or sell a bond for $20 or use $20 of his income and keep it in cash instead of spending it or investing it in some other way. So each person separately thinks he can decide how much money to hold in his pocket, and each one is right. Yet for the community as a whole, the amount of currency to be held in pockets is a fixed number. There are only so many pieces of these green pieces of paper that have been printed. The way that you get more in your pocket is by persuading somebody else to hold less. This is a game of musical chairs in which the pieces of paper pass around. While each individual separately can decide how much to have, the community as a whole has nothing to say about how many pieces of paper there shall be to pass around. That's determined by the Federal Reserve Board or the Treasury or by some central agency. Whatever that amount is, it's shuffled around from person to person.

I think that's a very clear and straightforward example of how it is that the way it appears to the individual is the opposite from the way it appears to the community. The same thing is true with respect to inflation. The example I can give you which will bring this out most clearly is one which I have taken from a recent textbook in elementary economics. The authors, Armen Alchian and William Allen, have a wonderful little story in their book that will illustrate how it is that to each individual separately it looks as if what causes inflation is a rise in costs even though to everybody together what causes it is an increase in demand, a monetary phenomenon. Let us suppose, they say, that all of a sudden the housewives of America decided that they wanted to serve more meat on their tables, and so come Monday morning each one goes to the butcher and buys more meat. No butcher raises his price. He just sells out his meat and then he orders a larger amount of meat from the wholesaler. The wholesalers sell out and so they order the larger amount of meat from the packer. The packer finds his inventory going down and so he sends back instructions to the cattle buyers at the auctions to buy more animals. Well, of course, there aren't any more animals to be bought, so what happens is that the people trying to buy them bid up the price of the animals. They report to the packing houses, "We're sorry we've had to pay a higher price for the animals." The packing houses say, "Our costs have gone up so we must charge a higher price," so they charge a higher price to the wholesalers. The wholesalers say, "Our costs have gone up so we must charge a higher price," so they charge a higher price to the retailers. The butchers say to the housewives when next they come in, "We're very sorry to have to do this to you; it isn't our doing, but our costs have gone up so we have to charge you a higher price." Everybody along this chain, except way back at that auction where there is nobody who has any costs that he can look at in the same sense, is honestly charging higher prices because his costs have gone up. And yet, taken altogether, the increase in prices clearly reflects the increase in demand at the final stage.

That is the way it is in the economy at large. Every manufacturer says, "I have to charge higher prices because my wages have gone up," but the reason his wages have gone up is because there's been an increase in demand somewhere else which has led somebody else to try to bid his workers away from him, or he's been trying to bid workers away from somewhere else. The ultimate source of the increase in price has been an increase in monetary demand.

And now we ask the question, where does that increase in monetary demand come from? If there has been any substantial increase in monetary demand, it always has had the same basic source. Somebody has produced more money. The exact source of additional money has varied from time to time. In the period after 1896, after William Jennings Bryan was defeated in the campaign for free silver, prices rose in the United States from 1896 to 1913 by roughly 35 percent. That price rise came from an increase in the quantity of money which occurred because some smart people had figured out how to apply the cyanide process to extract gold from low-grade ore. The resulting great increase in the production of gold brought about an increase in the quantity of money, which in turn brought about inflation.

To go back to my main theme, on that occasion, inflation reflected an

increase in the quantity of money, but the particular reason why the quantity of money increased varies from time to time. On that occasion it increased because of gold. In World War I and World War II, in the United States the quantity of money increased very rapidly because government printed it to finance the war. Go back to the great price inflation in Europe in the 16th and 17th centuries and that came because of the discoveries of specie in the New World. There have been many reasons why the quantity of money has increased, but inflation has never occurred to the best of my knowledge except as a consequence of a more rapid increase in the quantity of money than in output.

In modern times, the quantity of money is under the control of governmental agencies. In the United States, it is determined by the Federal Reserve Board, the Treasury, the monetary authorities. And that means that if inflation is always a consequence of an increase in the quantity of money, the responsibility for inflation is always governmental. But, of course, as you know, no human being likes to take responsibility for things that are unpleasant or undesirable and so no governmental official likes to stand up in front of an audience and say, "Mea culpa, I'm responsible for inflation." What always happens is that the governmental officials stand up and say, if we have inflation it's because of those rapacious businessmen and those selfish union labor leaders. If those people would only stop demanding more and more, higher and higher wages and higher and higher prices, there would be no inflation. And the businessmen and the wage union leaders, surprisingly enough, tend to accept the indictment because of their misunderstanding of the elementary economic point I've been trying to present here.

The businessmen tend to say that the reason we have inflation is because those selfish unions push up wages, and the union leaders say the reason we have inflation is because those selfish businessmen raise prices and, therefore, we've got to get higher wages to have the same real income for our employees. So you have a situation in which the government, to blame somebody else, attributes inflation to a wage-cost spiral, and the businessmen and the labor union leaders accept the blame and say, yes, we are guilty. Yet in fact, as I have emphasized, the inflation arises from one and only one reason: an increase in a quantity of money.

That is my first point. The next point I want to discuss is the harm that is done by trying to stop inflation by holding down wages and prices. The president, members of the Council of Economic Advisers, and other prominent public officials make speeches about the terrible effects of inflation and about the urgent necessity for businessmen and labor union leaders to exercise a social responsibility in holding down wages and prices. Maybe the cause of inflation is an increasing quantity of money, but you may well ask, what harm would it do to try to stop it by holding down those wages and those prices?

In the first place, one of the major sources of harm it does is to lead people and the government to misconceive the nature of the problem. If the businessmen and the labor leaders accept the blame, the government goes on pouring coal into the furnace, increasing the quantity of money, and says that any resulting inflation is not its fault. So you tend to encourage a delay in adopting the remedy which alone can prove effective, namely, a slowing down in the rate of growth in the quantity of money. That's only a minor reason why it is harmful. A second reason is that it isn't going to stop inflation. It's like taking a great big balloon and thinking that by pressing one corner of it you are going to deflate the balloon. All you do is push the air into the other part of the balloon. In the same way, if you succeed in holding down some wages and some prices, all that does is push the inflationary pressure over somewhere else and make it stronger there. Suppose you succeed in keeping down, let us say, the price of steel which has attracted so much attention. That would simply mean that the purchasers of steel have more money left after buying steel than they would otherwise have had and they can now spend it on bidding something else up. If you keep down the wage rate of labor under these circumstances, it just means that the employers have more money to produce inflation somewhere else, so all you are doing is shoving the inflationary pressure over.

But you may say, that's only because we haven't gone far enough. If we really spread our net wide, if we held down every wage and every price, there's no place for the inflationary pressure to go. That's true, but let's look and see what the consequences would be. The consequences of that would be to destroy the price system as a means of organizing economic activity and you would have to substitute something else. What else would you substitute? If prices are not going to determine who buys how much, something else must do it.

Let me give you a historical example which perhaps makes my point most strikingly about the importance of the distinction between open and suppressed inflation. It has a very real parallel with strong implications for the United States although it's a much more extreme case. The best example, because it's almost a controlled experiment, is a comparison of experience in Germany after World War I and World War II. As you recall, after World War I in Germany there was an inflation that really was an inflation. It was a hyper-inflation. A student of mine some years back, Phillip Cagan, wrote a classic study of hyper-inflations, and he defined a hyper-inflation as beginning when prices rose more than 50 percent a month. In Germany during the height of hyper-inflation, there were periods when prices were doubling every day. In fact, it got to the point that employers were paying their workers salaries three times a day

— after breakfast, lunch, and dinner so they could go out and spend it before it lost value. That was really an inflation. Prices went up by amounts that you have to reckon by 10 to the 10th or 10 to the 20th, something like that.

The hyper-inflation did tremendous harm of a social kind. It destroyed the German middle classes, and it undoubtedly laid much of the sociological basis for the subsequent emergence of Hitler. But from a purely economic point of view, the striking thing about it is that, except for the last few months of the hyper-inflation, the level of economic activity remained high. Inflation was open, prices were free to rise, there were no price controls of any kind, and, consequently, people were free to continue to do business. There were certain kinds of inefficiencies produced but you never had any major decline in the aggregate level of production. Indeed, as you may recall, 1920 to 1921 saw a worldwide depression. In the United States prices fell by nearly 50 percent from 1920 to 1921. Germany was almost the only country in the world to escape that depression. While the rest of the world was having a decline in output, Germany was booming. There was an artificial kind of a boom that had great social costs, but from the purely technical point of view, the inflation did not prevent the economy from operating.

After World War II, Germany was again faced with an inflationary problem, but it was an inflationary problem of enormously smaller scope. Prices rose about fourfold. Now that seems like a big inflation and it is. For prices to go up to 400 percent of their initial value is a substantial price rise. But it is negligible by comparison to what happened after World War I. Yet that rise was not permitted to happen openly after World War II. There was widespread price control. Under those circumstances, price control can almost never be enforced. From the time of the Roman Empire to the present, you cannot in general enforce price controls when there is that big a discrepancy between the market price and the controlled price.

Friedman (right) with President Nixon and George Shultz in the Oval Office in 1971, the year the Nixon administration imposed wage and price controls.

But Germany from 1945 to 1948 was an exception because there was an American, a French, and a British occupation army there, and they were enforcing the price controls. So you had about as well-enforced price controls as you could imagine. The result was that, because this inflation was suppressed, the prices were not allowed to find their own level, and output in Germany was cut in half. Walter Eucken, a German economist, wrote a wonderful article on this experience in which he tells the story of workers in a factory making aluminum pots and pans who would work in that factory for three days a week. They would receive their pay in the form of some of the pots and pans they had helped to produce. They would spend the rest of the week scouring the countryside trying to find a farmer who was willing to trade them some potatoes for those pots and pans.

The problem is, if you don't let prices rise, you destroy the system which organizes the economy, the price system which coordinates the activities of different people. You force people into the inefficiency of barter, or a man producing pots and pans trying to find a man who has potatoes, instead of selling the pots and pans for money and using the money to buy the potatoes. And so Germany with a very much smaller inflationary pressure had an enormously greater reduction in its economic output. Indeed, the action taken in response to this episode is the reason Ludwig Erhard is chancellor of Germany today.

One Sunday in 1948, Erhard, who was economics minister then, released an announcement that all price controls were abandoned. He did it on Sunday because that was the day on which the Allied offices of military occupation were closed and so they couldn't contradict his order. Immediately, there was a very sizable rise in recorded prices, but immediately also the price system started operating again. That was the source of the German economic miracle, as it came to be called, which produced a tremendous increase in the total output of Germany over the next year or two. There was no mystery about it. It had nothing to do with the capacity of the German people for hard work or with any special wisdom of the American occupation authorities or with any assistance from us to them.

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It solely was a case of substituting an efficient money system for an inefficient barter system.

The money system is so important that if you prevent it from operating efficiently something else will come along. In the period from 1945 to 1948 in Germany, as you may recall, substitute monies developed. Germans started to use cigarettes as a form of money: cigarettes for small transactions and Cognac for big ones. That was when they really started talking about the importance of having adequate liquidity. And you may remember that there were stories in American newspapers of this time saying something like, "Look at these crazy Germans. They just got beaten in the war and they are poor and devastated. Yet they are willing to pay $1.50 for a package of cigarettes. How silly can they be?" The answer, of course, is that they were no more silly than you are when you're willing to pay $10 for a piece of paper (a $10 bill) that's only worth a penny as paper. You don't pay $10 for this piece of paper in order to burn it or to write notes on it. Neither were the Germans paying $1.50 or $2 for a package of cigarettes in order to smoke them. That was money because prices in terms of cigarettes were not controlled, and it developed as a very inefficient substitute money.

Wage and price controls destroy the system which organizes the economy.

The repressed inflation in Germany was far more destructive of economic output and productivity than the open inflation after World War I. And this is true more generally. Let me come back to the United States to see some parallels in very small ways. Not long ago, there was pressure on American copper producers not to raise the price of copper. The next step, of course, is that, since copper is selling for a higher price abroad than it is at home, everybody wants to export it and nobody wants to import it. People want to buy it from copper producers at home. The next step is to impose export quotas on copper. Now if you want to export copper, you are prohibited from doing so unless you can get a permit from the Department of Commerce. This is inevitable. If you are going to fix the price of copper, then you will have to decide who shall buy copper at that lower price, and so it goes all down the line.

We have so far in the United States had the most extensive experience with repressed inflation in an area where it is most destructive, namely, foreign exchange. We have been pegging for some years now the price of the pound sterling in terms of the dollar, the price of francs in terms of the dollar, the price of gold in terms of the dollar, and so on. And we have had the usual consequences from price fixing. You know, economists may not know very much, but there's one thing we know. We know how to produce either surpluses or shortages. You just tell us what you want. If you want to have a surplus, we'll tell you to set the price too high. Have a high price on wheat and you'll be sure you'll have wheat running out of your bins. If you want a shortage, we'll tell you to set a low price. Put rent control on rental quarters in New York, and you'll be sure you will have a shortage of dwelling units to rent at that price.

We've been doing pretty well in the case of silver with first creating a surplus and then creating a shortage. We've had it both ways in that case. Incidentally, the story of silver is fascinating. In the 1930s, we had a silver purchase program that, as it happened, was one of the main reasons why China is communist today. I won't go into that one right now, except to note that under the silver purchase program we raised the price of silver in one year from 25 cents an ounce to 75 cents an ounce and subsequently to 90 cents. Of course, this brought a tremendous inflow of silver into the U.S. Treasury just as our price fixing in wheat did. We kept the price of silver at the same level and in the meantime prices in general more than doubled. Hence, a very high price became a very low price and now, in order to prevent the price of silver from rising above $1.30, we've had to sell silver out of these stocks. We've had a shortage and, as you know, we've substituted Federal Reserve notes for silver certificates, and sandwich coins for solid coins. So we know how to produce shortages or surpluses.

That's what has been happening in the foreign exchange market. We've been pegging the price of the dollar. The result has been a whole series of direct interferences with individuals and with trade. You know as individuals some of the minor irritants, things like the reduction of the duty-free allowance tourists can bring in. Much more important has been the interest-equalization tax which has established a differential exchange rate, a devalued exchange rate for capital transactions. Also, there are oil import quotas, copper export quotas, and I can't begin to name the host of specific quantitative controls that have been promoted by the attempt to peg exchange rates.

I mentioned foreign exchange pegging because that is a particularly important type. The example that comes to mind in this case as a cautionary tale of where it can lead you to is India. India is a country which has been having inflation over the past decade or so, and it has been repressing it the way in which we have been trying to repress it here. The key in India is the exchange rate of the rupee. The official price of the rupee is 21 cents, 4.7 rupees to the dollar. If the rupee was worth 21 cents five or 10 years ago it is certainly not worth it now because prices have gone up 30 or 40 or 50 percent. I'm not sure of the latest figures. But India has tried to maintain that exchange rate. The result is, of course, that everybody wants to

import and nobody wants to export. So you then have quotas and exchange permits on imports and subsidies on exports. You have to ration imports of steel, copper, and so on.

The next stage is it becomes of great economic value to have an import permit. Indeed, if you ask what has been the major source of new fortunes in the last 20 years in the world, including the United States, there is no doubt it has been getting the ear of governmental officials to get special permits, whether it be to have a single television station or to have a permit to import copper. In India this is very widespread. There's enormous corruption and bribery involved in the exchange permit system. Indeed, the major obstacle to having a devaluation of the rupee exchange rate or allowing the rupee to go free is that there are now so many people who have vested interests in the exchange rate system because they have the import licenses.

Exactly the same thing is true in this country. The permit to export copper is a valuable thing now. I mentioned the TV and radio stations, and that's a special example of the same kind of thing. Here you have something that's worth several millions of dollars if you get it, and if you get it, you get it for nothing. Then people are surprised why there should always be charges of corruption and bribery in connection with television and radio licenses.

To come back to my main theme, the effect of trying to hold down prices by suppressing individual prices and wages is to eliminate the central governor of the economic system, the central method by which we organize our economic activity. If you insist on doing that, you are going to have to substitute something else. You are going to have to engage in rationing and indirect controls. You are going to have to decide who shall buy from whom and how much. The effect, therefore, of trying to stop inflation by holding down individual prices and individual wages is to introduce enormous inefficiencies and to expand very greatly the scope and extent of direct controls.

This, in turn, has a further effect which is the final consequence I want to mention of trying to stop inflation by holding down prices and wages. The effect is of a political character. We have had a number of episodes in the past five or six years in which there's been an attempt to hold down wages and prices. We had the Kennedy confrontation with the steel industry in 1962. We had the more recent episode with aluminum. The interesting thing to me is the drastic change that occurred between the first and the second episode in the willingness of businesspeople who were potentially affected by it to speak out freely and express their sentiments about it. And I don't blame them.

There is no legal authority whatsoever whereby the president or any other official has the power to require the aluminum company or the steel company to hold down its prices or a union to hold down its wage rates. There is no official authority, but there is lots of power lying around Washington. There are lots of extra-legal pressures that can be brought to bear. After all, there's hardly a man in the country who cannot now be subjected to great inconvenience by having a tax official suddenly decide that his return needs extra careful scrutiny — and which return doesn't?

The threat of antitrust action is not something which any businessman is going to take lightly. There is a wide range of governmental contracts that are available. The attempt to hold down particular wages and prices produces a resort to extra-legal power, which, in its turn, tends to spread and to lead to a suppression of individual and personal and political freedom and to a great lessening of the willingness of people to dissent. These are some of the consequences of the attempt to stop inflation by holding down particular prices and wages.

I think they are extremely serious both from the point of view of economic efficiency and from the point of view of the preservation of political freedom. If we are going to have inflationary pressure we should have it open — let prices rise, let it go. Better yet, of course, would be to remove the source of the inflationary pressure by slowing the rate of expansion of money.

After the 1960 recession, itself largely produced by a sharp retardation in monetary growth, indeed an absolute decline, the Federal Reserve System did the right thing by increasing the rate of growth. They have also done the right thing by maintaining a fairly high rate of monetary growth. This is the main source of our long continued expansion. Unfortunately, however, they overdid a good thing and expanded the quantity of money at too high a rate. This has built into our society some pressures driving toward higher prices. We cannot eliminate this pressure and stop the inflation without paying a price. The danger is that if we try to do so, as we sooner or later will have to, by curtailing the growth of the quantity of money, that we will go too far, that we will overdo the reaction. Even if we don't overdo the reaction, there is no way of bringing inflation to a halt suddenly. There is already built into the economy forces for making price increases.

If you were to take the correct and proper measures, which is to slow down gradually the rate of growth of the quantity of money, there will for a time be a continuation of inflation at the same time that we experience some measure of recession and unemployment. That is part of the price we are going to pay for having in the past three or four years stepped on the accelerator too hard. But that will be far better and a far lower price than to continue along our present lines of trying to conceal the inflationary pressure by appealing to the social responsibility of business leaders and labor leaders, reinforced by an appeal to unnamed and unspecified exercise of governmental power.

Thank you. **RF**