

"Inflation: Is It an Incurable Disease?"*

by Milton Friedman

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It is a great pleasure to be here with you in South Africa. Although it is a country I have never visited before, I know a good deal about it. My main interest as a scholar has been the history of money and South Africa has played a crucial role in that history. The world inflation which ran from the 1890's to the First World War resulted primarily from the discovery of the cyanide process of gold extraction which opened up the South African gold fields to exploitation.

I have used the title of inflation as a disease – curable or incurable – because that is what inflation really is. In its extreme form, the form which afflicted Germany right after World War One, the slightly less extreme form which is now afflicting Argentina, it is a disease which can destroy a nation. In the less extreme form it can weaken and undermine the productive strength of a nation. We want to ask what is the cause of the disease, what is the cure, what side-effects or unpleasant features will be associated with the cure, and finally, what alternative is there to the cure.

If we turn to the cause of the disease, the first and most important, thing to be said is that inflation is produced by government. I do not mean that it produced out of ill-will or malice. It is produced by government because government responds to the wishes of its constituency. However, every government, whether it be in South Africa or in any other country of the world which embarks on an inflationary course, is quick to blame other people for inflation. You will discover, if you listen to Governmental officials, that inflation has been produced perhaps by the Arab sheiks, perhaps by the greedy businessmen, perhaps by the grasping trade-unionists in countries where they have power, perhaps by the spendthrift consumers.

Then you will find that government will exhort the community to stop the inflation. I read the anti-inflation manifesto issued by the South African Government in September, and it is very much par for the course. There is about one paragraph in it which has some relation to the true cause for inflation; the rest is an attempt to shift the blame for inflation to the other groups in the community. Now there is no doubt whatsoever that the businessmen are greedy, that the trade-unionists are grasping, that consumers are spendthrifts. But none of these groups possesses a printing press on which it can turn out those multi-coloured pieces of paper you call money. The direct cause of inflation is too much money relative to output. There is no other route through which inflation can be produced. There is no inflation in history which has not been preceded by a rapid increase in the quantity of money per unit of output. There is no case that I know of in which you had a rapid increase in the quantity of money relative to output without inflation.

That proposition is the beginning of the understanding of inflation but it is a proposition which people find very hard to accept. To persuade you that it's at least worth thinking about I have a few charts to illustrate the relationship between the quantity of money on the one hand and the price level on the other.

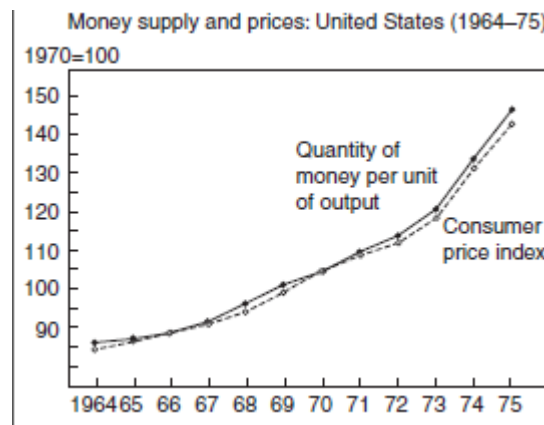
The first chart is for the United States of America for the decade 1964–1975. The quantity of money in the United States per unit of output is expressed with 1970 as 100, so that it's an index number based on 100. The consumer price index is expressed similarly with 1970 as 100. As you can see, there is more than a family similarity between the two curves. (To allow for the time it takes for a change in the quantity of money to take effect, the quantity of money plotted is for a period ended six months earlier than the price index number.)

In Japan, there was a very much more rapid rise in the quantity of money per unit of output and a very much more rapid rise in prices. Again the two charts match one another. You can see too why the United Kingdom is having a violent inflation. The quantity of money per unit of output has been shooting out of sight and so has the consumer price index.

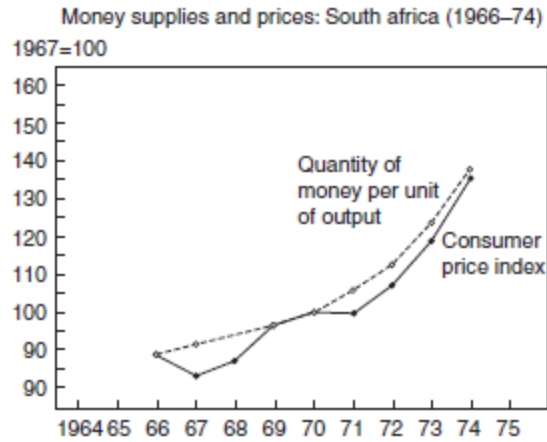
Unfortunately in Chicago we were unable to get the very latest figures on South Africa and so the last year on the final chart is 1974. I believe though, from what I have observed since being here, that adding another year on the chart will not destroy the relationship.

I have shown you the proximate cause of inflation but the question remains: why does the quantity of money increase?

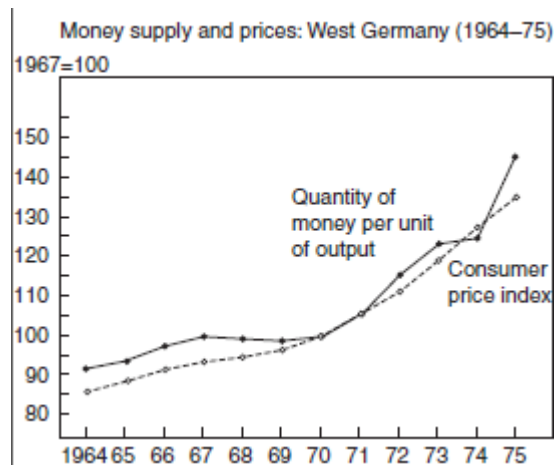
Historically, the reason has very often been an event which has produced a rapid increase in the physical quantity of the monetary metal. In the 1840's and the 1850's gold discoveries in California and Australia produced a rapid increase in the quantity of money and world wide inflation. In the 1890's there was a flood of South African gold.



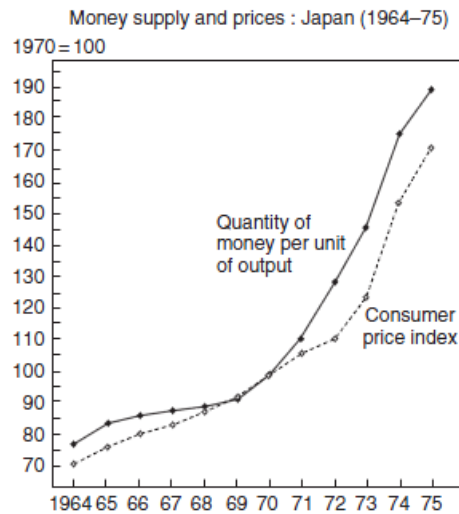
Note: There is a delay in the impact of a change in the quantity of money. Therefore, the money index measures the quantity of money (“near money”) for the fiscal year ending June 30 while output (real GDP) is for the calendar year.



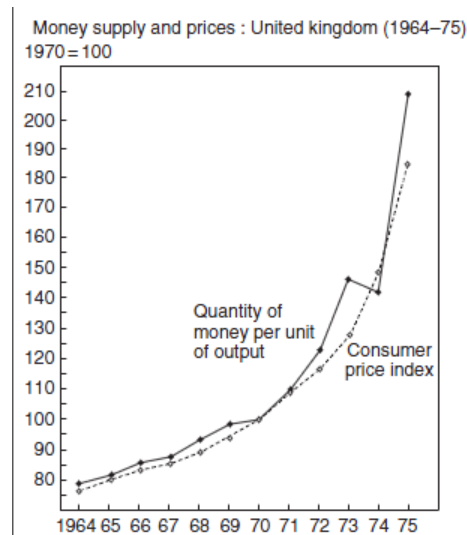
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But nowadays we have become more sophisticated and no longer rely on the "barbarous" metal gold to keep us in restraint and the main sources of an increase in the quantity of money are no

longer changes in the physical supply of the precious metal or of gold. Today money is created by government, either by printing paper or by entering numbers on a ledger.

Why do government monetary authorities increase the quantity of money? There is one reason which has been with us for thousands of years: whenever any sovereign has invariably turned to inflation as the method of taxation, as the method of financing his expenditures. That was as true of the Emperor Diocletian two thousand years ago as it has been of many sovereigns in between. In the old days they did it by introducing alloys into metals so that the silver contents of coins was reduced. In the final years of Diocletian's reign the denarius, once a solid silver coin, had finally been reduced to nothing more than a copper coin with a thin wash of silver. Those were the means whereby the ancient sovereigns inflated the currency in order to provide for their expenditure.

In the modern day we do it, as I say, more elegantly but the fundamental reason is the same. Inflation has a special feature that recommends it particularly to governments when they are subject to strain in their budgets, and that feature is that it is the one form of taxation that can be imposed without anybody voting for it – a form of taxation without any representation.

Your government has imposed upon you a substantial burden of taxation in the past several years, through a rise in the price level, just as my government in the United States has imposed one on us. The tax takes three different forms: in the first place, the depreciation in your cash balances is strictly equivalent to a tax on you for holding cash balances. The extra pieces of paper you have to carry around in your pocket in order to have the same purchasing power are exactly the same as if they were receipts or vouchers for taxes paid. The second way in which inflation is a tax is that with graduated income-taxes the effect of inflation is to push people up into a higher income bracket and thus to raise the effective burden of the tax without any member of Parliament having to vote for it. The third way in which it is a tax is that people who loan money to the government are paid back in depreciated money, and therefore in effect end up paying the government for the privilege of lending money to it. In these three ways inflation produces revenue for the government.

Now I don't believe you ought to blame government. It's the people who insist that government increase its expenditures without increasing taxes. Well then, if you leave the government between a rock and a hard place, it's little wonder that it takes the easy way out, that of permitting inflation to occur. This financing of government spending has been probably the most important single historical source of inflation.

In our modern day, the adoption by government all over the world of full-employment policies is another reason. Whenever there is an economic recession, there is great pressure on the government to increase its spending, to increase its printing of money, in order to relieve unemployment. It can succeed for a time. By printing money and inflating the currency you can temporarily create what appears to be a boom, but when people catch onto what's happening the stimulus disappears. At that point prices rise and you have a combination of both inflation and unemployment.

The first of these two factors, the financing of deficits or expenditures, has been a steady force making for more or less chronic inflation. The second factor, the full-employment policy, has a

different effect: it has produced a wave-like pattern of inflation. When the inflation emerges and gets serious there is great pressure on the government to do something about it. It steps on the brake. As soon as the economy slows down it reverses itself and steps on the accelerator, and this produces a kind of roller-coaster, with a generally upward trend. Each trough tends to be higher than the preceding trough, each peak tends to be higher than the preceding peak. We in the United States are today praising ourselves because inflation has been brought down from something like 12 per cent a year to something like maybe five per cent or six per cent a year. The last sentence of Adam Smith's "Wealth of Nations" says that England, if she doesn't make her colonies pay, will have to adjust herself to the mediocrity of her circumstances. Well that's what we do with inflation: we adjust ourselves.

Some of you will ask me, haven't I left out some fundamental causes? These anti-inflation documents put a great deal of emphasis on the influence from abroad and on productivity. Have I not left out something important?

The answer in both cases is no. Inflation cannot be imported. In today's world, in which we do not have a system of rigid exchange rates, in which we have exchange rates which sometimes are pegged but always are subject to change and which more frequently are floating, inflation is strictly a domestic matter. If one country inflates more rapidly than another it has a decline in its exchange rate. If you look at the chart you will see that the exchange value of the British pound has declined by almost exactly the same amount as its inflation exceeds the inflation in the United States. France has inflated more rapidly than Germany so the exchange value of French francs has gone down relative to the exchange value of the Mark. South Africa is at the moment inflating more rapidly than other countries. If it continues to do so, it will be forced, sooner or later, to change its exchange rate as a result of the differences between its inflation rate and the inflation rate of the outside world.

The question on productivity is one of orders of magnitude, South Africa's real output has grown at something like five per cent a year for many years. It would be a miracle if by some feat of management you could raise that five per cent to six per cent. But that's small potatoes compared to the rate at which the quantity of money can be increased. Your quantity of money was increasing a year ago at the rate of at least 20 per cent a year. It is true that if you could increase your output more rapidly that would tend to be anti-inflationary. But as the charts show if you could increase output by one per cent per year more rapidly, that would tend to reduce the inflation rate by only one percentage point. You cannot solve inflation problems by improving productivity; it is just too weak a weapon for that purpose.

Let me turn from the cause to the cure. We know how to stop inflation: stop printing money. In South Africa today, that would require the government to cut down on its expenditures or to increase explicit taxes, or to pay whatever interest rate it must to borrow at home or abroad. That's very simple, very straightforward, but the problem is to have the political will to take one or another of these steps.

It's hard to have the political will because inflation is very closely analogous to the drinking of alcohol. When you go on a binge, the good effects come first, the bad effects come the next morning, when you have a hangover. It's the same with inflation. When a country starts off on a

inflationary binge it looks as if everyone is doing well. You're pouring out money, demand for your products is going up, the effect is increased output and employment.

But as people catch on to what's going on, as prices start to rise, the hangover comes. In the process of curing yourself of alcoholism the situation is reversed: the bad effects come first and the good effects come later. It is precisely the same with inflation. If you slow down the rate of growth in the quantity of money, the initial effect is to slow down the rate of growth of the economy, which leads to unemployment. Only when the effect of your measures works itself through the economy will prices start to slow down, inflation eases off and output grows in a healthy, non-inflationary fashion.

It is extremely difficult for politicians to take measures that have initial bad effects. They are engaged in a political market trying to satisfy their customers, the voters. Another obstacle to ending inflation is that most of us gain from inflation. Everybody objects to a rise in the prices in the things he buys but he is delighted at a rise in the prices in the things he sells. I have yet to hear anybody objecting to inflation, who says that what's wrong is that he is able to sell his goods for higher prices. People who own their own homes purchased those homes on mortgages at relatively low interest rates and have seen their mortgage paid off as a result of inflation. And there are many other groups who gain from inflation and who oppose the policies required to eliminate it.

The cure for inflation will therefore involve painful side-effects. But there is no alternative. It is an illusion that somehow or other there's a trade-off that we can simply settle down to a steady rate of inflation and get the benefit of a low rate of unemployment.

What in fact we have had is a rising average rate of inflation and also a rising average rate of unemployment. The reason is because inflation does not affect all items alike with some products adjusting more rapidly than others. Moreover, inflation inevitably produces governmental interventions designed to fix a price here or there. In your particular case, the Government intervened to fix the price of the rand.

These price fixing attempts are bound to fail, but in the process they generate distortions and other interventions. If you peg the price of the rand you have to have exchange control, which means you have to intervene in the decisions of who may buy what, where and how, and the result of this is that you make the market much less efficient than it otherwise would be. You lower production and you increase unemployment. This is the kind of thing that has happened in Great Britain, in the United States, in every country that I know of.

Now note that unemployment is not a cure for inflation, but rather a side-effect of a cure. Wage and price controls are also no solution. We have had two thousand years of experience with wage and price controls and there is yet to be a case in which they have succeeded in holding down or curing inflation. Indeed, the situation is really the reverse. If any government introduces wage and price controls it can be predicted with great confidence that there will be an inflationary burst a year or two later. Governments undertake wage and price controls to give the impression that they are doing something to cure inflation, while they follow inflationary policies. After all governmental officials are in general very smart, they know their history as well as you and I do.

They know wage and price controls suppress the symptoms of inflation but they do not get at the cause.

One of the things that has always fascinated me is the suicidal impulse of businessmen who are often among the strongest supporters of wage and price controls. Fortunately, the United States experience from 1971–3 has temporarily cured businessmen of the delusion that controls will hold down wages rather than prices. In general, workers have more votes than employers, so wage and price controls will always be more effective on prices than on wages.

Given that you take the cure, is there any way that you can minimize the side-effects? What's the economic equivalent of aspirin?

There are two devices which will minimize the painful side-effects of slowing down inflation. One is to undertake the cure gradually. Given that you are in a situation where prices are rising in South Africa – it's something like 11 per cent per year – take two or three years, four years to gradually bring it down. Your goal should be zero, not a modest rate of inflation, but zero. But don't try to do it overnight. Obviously for Argentina with a rate of inflation running at 400–500 per cent a year, it's absurd to tell them that they should slow it down gradually; they must really step on the brake. But if you're in a situation such as South Africa is in, there's a good deal to be said for slowing it down gradually to ease the adjustment.

The second device for easing the adjustment is to index government taxes and government borrowing. For example, the basic exemption on personal income tax should not be a fixed number of rands or fixed number of dollars but a number of rands multiplied by a price index number. Similarly, I think that it is a lack of faith with its citizens for governments to issue bonds and securities, the real value of which is subsequently depreciated by inflation. The person who buys Government Saving Bonds gets interest at the rate of about five or six per cent when price inflation has been higher than that. To add insult to injury he pays income tax on the fake interest he has received. In most cases the poor sucker ends up worse off. This is a great scandal and the government ought to avoid it by indexing its securities. I do not believe in compulsory indexation in the rest of the economy. You ought to have voluntary indexing as far as possible in order to permit long term contracts to be entered into with confidence.

Outside of those two devices I don't know of any other ways to minimize the cost of slowing down inflation once you've gotten into it.

If time permitted, we could go into a much more extensive discussion of an even more basic source of our present predicament: the tendency over the past thirty or forty years to assign ever larger roles to government. This change in attitude has led to greater expenditures which causes governments to resort to inflation as a method of taxation. This expansion in the role of government has also led to governments trying to assume responsibility for full employment.

From the very long-term point of view we shall not solve the problem of inflation unless we are able to change public attitudes towards assigning a smaller instead of a larger role to government, towards cutting government back to a size at which its expenditures match what the public is willing to pay in taxes. I cannot say that there is any very great prospect of that occurring, but I don't believe it's completely hopeless. One of the main allies in our fight to turn

the tide of opinion has been the inefficiency and incompetence of government. Another main ally has been the efficiency and competence of ordinary people in finding ways of getting around government regulations. Between the two the effect has been to produce, certainly in my country, a disillusionment with government as the solution to all problems, a greater respect for individual initiative and private enterprise as a way in which people can co-operate with one another without coercion.

I think, however, that if one were to predict the future simply by looking at the past you would have to be very pessimistic. It seems to be extraordinarily difficult for any country to learn from the experience of any other country. I have been in your country only three or four days, but in respect to your inflationary experience I didn't have to be here more than ten minutes. When you go to a continuous movie you say this is where I came in. Well that's the feeling I have here, that I'm seeing a film that I've seen before. The course of events here is identical with the course of events in my country, in Great Britain, in France and in Japan. The most extreme example is the pegging of the Rand to the U.S. Dollar. In 1971 Japan paid five hundred million dollar for the dubious privilege of postponing the appreciation of the yen by three weeks. In 1972 Germany did the same thing for the Mark. The British have tried time and again to hold the pegged rate. I have been trying to find out what is going to enable South Africa to do what Japan could not do. Just a few months ago, you had to recognize the inevitable and devalue the rand, the same thing will happen again if you continue on your present course. Of course, if you were able suddenly to turn around and reduce the rate of inflation to zero while our rate in the United States stays five or six, then maybe you can appreciate. I'm not trying to say whether you'll depreciate or appreciate, I'm only saying that experience over the past twenty years has shown that no country can peg its exchange rate over any long period while it follows an independent internal monetary policy. And yet country after country tries to do it. This inability of countries to learn from other people's experiences is a source of great pessimism.

But I will close on a more optimistic note. The lack of success of all long-term forecasters is a cause for great optimism.

Notes

* An address to 350 Cape Town businessmen, 24 March 1976.

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