The Death of Inflation

Roger Bootle

Economic Affairs are a mixture of the immutable and the ever-changing. For analysts and commentators the secret is to avoid getting the one confused with the other.

According to the dominant school of thinking in the subject today, the economics of inflation falls into the immutable category. By contrast, I submit that in the last decade and a half, major changes have taken place in the relations governing price and wage behaviour, and the constraints and issues facing policymakers. Underlying all this, of course, some things are unchanged—"excessive" growth of demand will still produce inflation. But what is excessive? And how much inflation will "excessive" demand produce? Is deflation a serious threat? These issues, I believe, are in the realm of the ever-changing. And they are changing now in a broadly favourable direction.

In short, the interaction between the microeconomic conditions in the economy and macroeconomic management is leading us to a new inflation regime—a regime in which it will be possible to combine sustained low inflation, or even price stability, with high levels of capacity utilisation and low unemployment. This is not to say that there are now clear blue skies ahead as far as the eye can see. There are storms on the horizon but they are somewhat unfamiliar—the dangerous interaction between low inflation, high interest rates and government debt; and the possible re-appearance of inflation's dark twin, deflation.

But already this talk of a change in the inflation regime jumps the gun. Before speculating on the future it is first necessary to put the past into perspective.

The History

To modern financial markets, persistent inflation, and the danger of a lapse into high inflation, are just facts of life. They are accepted without question as though they were inevitable. Yet it is striking how recent a phenomenon persistent inflation is—and the psychology which goes with it.

In the countries of the developed west, there was no sustained inflation of modern proportions until after the Second World War. There were occasional bursts of high inflation (sometimes very high), usually associated with wars (or the aftermath of wars), but they were not sustained. Moreover, the normal experience which these occasional bursts of inflation interrupted was not of continual moderate inflation, but rather of fluctuating prices. The general price level could—and did—fall, sometimes for sustained periods.

The British economic historians, Sir Henry Phelps-Brown and Sheila Hopkins, constructed a price level series for England from the thirteenth century to 1954. I have spliced recent British price data on to it, thereby bringing it up to date. I show this series on a normal scale in Chart I, which brings out the broad trend dramatically but suppresses much detail. This detail is revealed in Chart II, which is on a log scale. (This has the merit that a constant rate of inflation is shown as a line of constant slope, whereas with an ordinary scale a constant rate of inflation is shown as a line of increasing slope, making it difficult to judge by looking at the chart when inflation is rising or falling.)

The charts clearly bring out three things. First, the remarkable long-run stability of the price level over hundreds of years. Second, the frequency and extent of price deflation right up to the 1930s. Third, the remarkable extent of recent inflation, without parallel in the whole period. Although I have not come across any data on the price level going back anything like as far for other countries, data going back over the last two centuries confirms broadly the same picture for the US, Germany and France.

The recent history of inflation is, of course, much more familiar. And again, although it is sharply different from the older historical experience of inflation described above, it is broadly similar across countries. After the Second World War, inflation was moderate for nearly a quarter of a century (apart from another bout of war inflation associated with the Korean conflict). It was starting to rise at the end of the 1960s, but it really only took off in the 1970s under the combined impact of a coordinated world boom (which caused a dramatic rise in commodity prices), the first oil price shock and the breakdown of the international monetary system. A second oil shock at the end of the 1970s brought a repeat performance.

Following this experience, the 1980s were the decade of disinflation as central banks and governments nearly everywhere in the developed world strove to bring inflation down. And they broadly succeeded, despite another hiccup at the end of the decade. Moreover, the 1990s have so far continued this same trend. Inflation is now back down to 1950s levels. (See Table I.)

Fundamental Questions and Fundamental Answers

Why the sharp change in the inflation regime with the end of the Second World War? Why this period of continual peace-time inflation, sustained for fifty years, without precedent in modern history? The answers to these questions provide the backdrop to the economic prospects now before us.

The conventional view pins the blame for post-war inflation on the excessive
growth of the money supply. I will say more about the role of money and monetary policy in a moment. But the sophisticated version of this view goes deeper than the mere monetary numbers—to the underlying cause of loose monetary control. This it attributes to the end of the underlying cause of loose monetary control. This it attributes to the end of the Gold Standard and its replacement by a system where monetary policy was governed by central banks and governments, pursuing objectives of their own choosing.

Under the Gold Standard, the general level of prices was effectively tied to the amount of gold in the system. Gold circulated as coin and the amount of other currency permitted to be issued was limited by the amount of gold held by the central bank. If a boom developed while the supply of gold remained fixed then a shortage of money would ensue. This would lead to tighter credit conditions and higher interest rates, which would restrict spending. The opposite forces worked when an economy underwent a recession. Thus the Gold Standard was self-stabilising. And since the supply of gold in the economy was outside the direct power of the government, it was impossible for the government to sustain inflationary policies. Sooner or later, a shortage of gold would bring about a reckoning.

Listening to the many critics of recent monetary management, you would think that the difference between the Gold Standard and modern, administered monetary systems was a technological one, namely that governments are currently able to create money by printing notes whereas they were previously unable to influence or control the supply of gold. This suggests that a monetary system based on gold provides automatic discipline, whereas a system based on paper provides no intrinsic discipline at all. Once the link to gold was abandoned, governments and central banks were able to pursue policy objectives, such as full employment, with little regard for the inflationary consequences.

Yet this view completely misses the point. The central issue is indeed discipline and this is what the Gold Standard provided. But the key question is what kept countries on the Gold Standard, what made them continue to adhere to the discipline. The answer is certainly not because they knew no alternative. After all, debasement of the coinage had been known about (and practised) since ancient Greece. There must have been some other reason.

Again, the British experience is interesting. The gold content of the pound was fixed in 1711 and was still at the same rate when the link to gold was finally abandoned in 1931. Moreover, the price level was not that different either—only about 30% higher after more than 200 years. Even so, the Gold Standard was suspended for two intervals during this long period—during the Napoleonic Wars, and again during the First World War. In both cases, Britain was on a paper standard. Paper money was printed out of all proportion to the supply of gold. And in both cases, the result was a significant burst of inflation. After both conflicts, however, the British authorities decided to go back to gold, and at the same old parity—that is, at the same value of the pound in terms of gold. This meant that the inflated level of prices which had been sustained by the increased supplies of paper money was no longer sustainable. In short, prices had to fall to a level compatible with the limited stock of gold. So the wartime inflation was followed by peacetime deflation.

For other countries on the Gold Standard, it was a broadly similar (though shorter) story. They stuck with gold through thick and thin—until the 1930s. Why did the British authorities not resort to debasement? Why did they, and other countries, retain the Gold Standard for so long? And why did they twice go back to gold at the old parity?

The answer surely is because the monetary authorities, both in Britain and elsewhere, believed in it. That is to say, they believed in the desirability of a stable money and a stable long-term price level. And they believed that the Gold Standard could deliver this without undue sacrifice, including undue sacrifice to themselves. Moreover, belief in the Gold Standard was not a mere unfounded prejudice; for more than two hundred years, it did give long-term stability to the price level, and the economy prospered—even in times when prices were falling.

To put the matter starkly, the discipline afforded by the Gold Standard was not imposed but self-imposed, because of a set of beliefs about the way the economy worked. And in the end, it was a change in that set of beliefs that killed it.

### Price and Wage Rigidities

When Britain went back to gold in 1925, getting prices (and especially wages) back to the levels consistent with the old sterling-gold parity was extremely painful, more painful than it had been after the Napoleonic Wars, and more painful than most expected it to be in the 1920s. When the 1929 Wall Street crash ushered in a wave of deflation across the industrial world the same effect was evident everywhere. Prices and wages did fall but only painfully slowly, and nowhere near fast enough to absorb the drop in aggregate demand. So there were large falls in real output. The result was intolerable misery.

Once deflation was abandoned and expansionary policies were pursued, the result more or less everywhere was the same—big increases in output and big falls in unemployment, accompanied by hardly any inflation. This is what broke the Gold Standard and stood in the way of its return after the Second World War—people no longer believed that it worked, and with good reason. Scarce wonder, therefore, that policy after the War was devoted to maintaining unemployment at the lowest possible level, with scant concern for the dangers of inflation—a policy dubbed by Sir John Hicks as the Labour Standard.

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<td>Canada</td>
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<td>France</td>
<td>6.7</td>
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<td>Germany</td>
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<td>Italy</td>
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<td>15.9</td>
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<td>Japan</td>
<td>3.1</td>
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But this was not a case of modern, democratic governments pursuing the easy way out, of governments unconstrained by the Gold Standard, behaving irresponsibly in pursuit of their own selfish, short-term goals. On the contrary, this was the policy which seemed to make rational sense in the interests of the economy as a whole.

Moreover, it was the policy urged by the new economic establishment, who now regarded as antediluvian the deflationary precepts and prescriptions fervently believed by their equivalents only twenty years ago.
or thirty years previously, just as their ideas are now derided by today's economic policy establishment. And for about a quarter of a century, this policy worked.

Ironically, what eventually caused the breakdown of the Labour Standard and of the post-war policy consensus was a logistic extension of what had caused the breakdown of the Gold Standard—namely, the increasing imperviousness of prices and wages to demand conditions. When demand was slack, the rate of inflation, never mind the absolute level of prices, hardly fell. If a shock occurred to the cost level, the rate of price rise accelerated. In this way, the rate of inflation was ratcheted up. By the mid or late 1970s it had reached intolerable levels. The regime had to change. And change it did.

What had destroyed the Gold Standard was the unacceptably high unemployment costs of deflation in conditions where pay and prices had become institutionalised and subject to producer power. But in the crises of the 1970s, these self-same conditions then destroyed the Labour Standard, by producing acceptably high rates of inflation. The denouement was a long period of disinflation, accompanied in most countries by high levels of unemployment. What makes the future look so different now is that these structural forces which destroyed the Gold Standard and the Labour Standard are collapsing, with dramatic consequences for both the world economy and the policymakers charged with the responsibility of managing it.

**Changes at the Micro Level**

We are used to speaking of “the market economy” as a way of describing the economic system under which we, in all countries of the democratic west, have lived. But in the years after the Second World War, the influence of markets was severely attenuated. In many product areas, a few firms in entrenched positions dominated. With secure conditions and cozy markets, their cost bases burgeoned.

The entrepreneur gave way to the corporate bureaucrat.

In Europe, huge swathes of the productive economy were owned by the state, and run in pursuit of a variety of objectives—with profit maximisation some way down the list. Even in the private sector, the influence of government was often felt with a heavy hand.

With regard to employment, people spoke of a labour market but in reality matters of wages and employment were not settled on any sort of market. In most of Europe (although less so in North America), trade unions dominated the wage bargaining process. Even where their influence was not felt directly, the debate about wage levels was dominated by considerations of rights, fairness and comparability. In countries (such as Germany) where an effective tripartite structure (involving employers, unions and the state) operated, it was possible to combine these arrangements with a low rate of inflation.

What had destroyed the Gold Standard was that such changes have occurred?

Table II: Interaction Between Microeconomic Conditions and Macroeconomic Policy

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<th>Period</th>
<th>Micro Conditions</th>
<th>Policy Regime</th>
<th>Macroeconomic Performance</th>
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<tr>
<td>19th century</td>
<td>Price and wage flexibility</td>
<td>Gold Standard</td>
<td>Fluctuating prices, fluctuating growth but deflation no impediment to real growth</td>
</tr>
<tr>
<td>Early 20th century</td>
<td>Some price and wage flexibility but rigidities emerging</td>
<td>Gold Standard</td>
<td>Fluctuating prices but deflation now a serious impediment to growth</td>
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<tr>
<td>1945 – late 1960s</td>
<td>Extreme downward inflexibility of wages and prices</td>
<td>Labour Standard</td>
<td>Continual inflation but sustained growth with low unemployment</td>
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<tr>
<td>1970s</td>
<td>Labour militancy, cost-push culture and dominant inflationary psychology</td>
<td>Transition</td>
<td>High inflation, weak growth, high unemployment</td>
</tr>
<tr>
<td>1980s and early 1990s</td>
<td>Weakening of inflationary psychology, collapse of labour power and outbreaks of serious price competition</td>
<td>Discretionary disinflation (monetary targets)</td>
<td>Low inflation, still high unemployment but signs of marked improvements (US and UK)</td>
</tr>
<tr>
<td>The future?</td>
<td>The return of price (and wage?) flexibility</td>
<td>Discretionary pursuit of very low inflation or price stability</td>
<td>Sustained growth accompanied by low inflation</td>
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The upshot is that firms now compete vigorously on price, and there is a constant stream of price reductions (principally in the high-tech area, and in sectors closely affected by low cost supply from the dynamic countries) to offset the areas where prices are still going up. This has begun to dent the inflationary psychology which has dominated since the War. People are now starting to get used to low inflation and this is itself helping to keep inflation down.

These changes in microeconomic conditions make it possible for western economies to combine sustained growth and low unemployment with very low inflation. What lies before us could be at least as good as the immediate post-war period, and possibly even a good deal better. (See Table II.)

**Doubts and Whispers**

However interesting these ideas may be, many sceptics remain unconvinced that the inflation relationships have fundamentally changed. What evidence is there that such changes have occurred?
The experience of the last few years provides several sorts of evidence. Two examples will have to suffice here. First, in the United States the economy has been in continuous expansion for six years and unemployment has fallen to just over 5%. At various stages during this expansion, the Cassandras, basing their forecasts on previously established relationships, have seen an inflationary upsurge around the corner, pointing to a succession of indicators which supposedly heralded disaster—the unemployment rate, commodity prices, the gold price, the money supply, the bond market. And they have all been wrong. It is particularly noteworthy that in recent years the core rate of inflation has hardly budged from just under 3% as unemployment has fallen and maintained its lower level. (See Chart III.)

It is true, of course, that in Europe the unemployment picture is much more gloomy. Even so, the inflation story is much the same—inflation lower than almost anybody forecast. In Germany it is down to about 1.5%, and the signs are that the economy could readily stand a faster rate of growth and a lower rate of unemployment without producing higher inflation.

Second, several European countries which suffer from high unemployment rates have managed to achieve and sustain low inflation rates in the face of developments that would have been expected to push inflation higher. The most spectacular examples are in those European countries which either withdrew from the Exchange Rate Mechanism (ERM) or devalued in 1992-93. When their currencies fell, market and professional opinion was at one—the result would be higher inflation which would soon wipe out the competitive gains, leaving no lasting legacy except higher inflation and higher interest rates. They were wrong. Inflation rose only modestly, leaving the devaluers with clear competitive gains.

Indeed, this has caused a complete reversal of view among the supporters of monetary union in Europe. They used to argue that it was perfectly acceptable to give up the opportunity to use exchange rate changes within Europe because such changes were effectively useless, except as ways of differentiating European inflation rates. After 1992-93, however, they complained about “competitive devaluation” and argued that the opportunity to have exchange rate changes within Europe had to be given up because they were so effective in raising the devaluers’ growth rates (at the expense of others).

A Short-Term Blip?

Some people accept that real structural forces have had an effect on inflation but argue that these are one-off, short-term factors whose influence will soon fade, landing us back with the inflationary tendencies of the past. But this strikes me as totally lacking in historical vision and imagination. With regard to the possibilities opened up by the revolution in communications technology we have so far only scratched the surface.

Meanwhile, the advance of the dynamic economies in the East has a very long way to run. Eastern Europe is only now setting out on this path and there is still vast untapped potential in Russia. Weakening of labour power may not have much further to run in North America, but it still has a lot further to go in much of Europe. One-off they may be, but it will be a one-off spread over decades to come.

Dangers of a Policy Reversal

Will the policymakers throw away our hard-gotten gains and allow (or even directly stimulate) a further burst of inflation? This is what bond markets in most western countries seem to fear. That is why they set the yields on long-term debt at such high levels. But contrary to market folklore (and one strand of current intellectual fashion), the markets are not always right. Indeed, they have been consistently too pessimistic about inflation. The bond market has undergone seesaws of optimism and pessimism about the inflation outlook, but the underlying rate of inflation has remained more or less unaffected. (See Chart IV.)

The implication of my thesis, of course, is that many central banks can indeed relax their stance and aim for a higher level of economic activity without endangering their objectives for sustained low inflation. However, with the notable exception of the US Federal Reserve, which has pursued a balanced policy by giving due weight to the needs of economic expansion, central banks are still obsessively on their guard against the danger of the inflationary genie breaking out of his bottle. Having seen inflation return to very low levels, their next trick, I suspect, will be to use the next recession, whenever it comes, to edge inflation down still further, to reach the central bankers’ Holy Grail—price stability.

If there is an inflationary threat on the horizon it comes, in my view, not from monetary policy but rather from fiscal policy. In many countries in the west (not least in Canada) the accumulated level of government debt is huge in relation to GDP. The interest payments on this debt make up a large proportion of government spending. In some cases they exceed the current public deficit—that is, all of current government borrowing (and more) is to finance interest payments on the outstanding government debt. This poses a potentially serious stability threat for the future.

At the moment, governments nearly everywhere are making strenuous efforts to contain their budget deficits and this is helping to restrict the growth of aggregate demand. But the process needs to go further and to be sustained for many years for the public finances to be put back on a stable footing and to fend off what could be a serious inflationary threat for some countries in the medium term.

While this fiscal consolidation is continuing, the proper role of monetary policy is to be supportive of economic expansion to help bring public deficits down further. This means a policy of sustained low interest rates, not rates high enough to fend off an imaginary inflationary threat in the immediate future.

The Role of Central Banks

To what extent is low inflation solely the achievement of central banks? The conventional view is that monetary policy is just about all that matters. Accordingly, countries get the inflation rates which their central banks (or governments, where central banks are not independent)
choose. But this view surely puts central banks too much in the driving-seat of events rather than as their victims. It implies that the high inflation of the 1970s was “chosen” and that central banks choose now to tolerate inflation in the 1%-3% range rather than establishing price stability.

It is more helpful, I believe, to see inflation as the result of an interaction between policy actions (including actions by the central bank) and impulses arising from the economy—on both the demand and the cost side. These impulses constrain the choices which central banks can make. The limitations on central banks can be summarised as follows:

- They cannot directly control microeconomic conditions in the economy. These conditions influence the nature and direction of economic shocks and how the economy reacts to them. Accordingly, they influence the sort of inflation regime that is realistically achievable. (See Table II.)

- Central banks do not have control over inflationary expectations, even though their actions can have a significant influence over them.

- There is dynamic interaction between factors operating directly on the price level, inflationary expectations and the rate of growth of the money supply. Accordingly, it is not even true that central banks choose the rate of monetary growth, let alone the rate of inflation which is supposed to result from it.

This last point is particularly relevant with regard to the status of “the money supply” as a cause of inflation, and the attitude both policymakers and the markets take to it. The popular vision of the money supply harks back subconsciously to the old days of gold. Money is thought to represent a stock of available purchasing power and when money grows faster, inflation will supposedly follow.

The truth is more complex. Sometimes faster monetary growth does indeed give a message of this sort. But the modern money supply is an amalgam of several different sorts of bank deposit which serve many different purposes, and the public’s demand for this amalgam may change substantially. So when the money supply increases, this may simply represent an increased preference for this sort of financial asset. It is part of central bankers’ job to tell which sort of monetary expansion is which. It certainly is not easy. But nor would it be cautious or prudent to follow the money supply blindly. On the contrary, it would be downright dangerous.

Consider a concrete example. Could the world’s central banks have chosen to achieve the low rates of inflation that are now common in the developed west during the 1970s? The answer surely is that had they been prepared to be tough enough, even if they could not have prevented the initial rise in the price level arising from the sharp increase in the price of oil in 1973 (and again in 1979), they would have been able subsequently to achieve the low inflation rates that we enjoy now. And if they had been prepared to be even tougher, they could in principle have achieved a price deflation to offset the previous inflation.

But to say that central banks could have chosen this course of action both flatters them and wrongly condemns them at the same time. Quite apart from the question of what would have been politically feasible, would it have been economically justified for central banks to have behaved in this way?

We can debate the details of whether one particular country should have resisted the inflationary forces more strongly, or indeed, whether some other country should have resisted less strongly, but the really important point is that the costs of resisting inflation had been raised by events arising outside the central banks’ sphere of competence, namely the upsurge of oil prices and the (partly associated) increase in inflationary expectations. Had central banks chosen then the inflation rates which they choose now, the western economies would have been thrown into a devastating recession.

**Conclusion**

Every generation of economic thinkers has a searing experience which colours attitudes for a lifetime. The thinking of the current generation of economic policy-makers was moulded by the inflation and instability of the 1970s, just as the previous generation was obsessed with keeping unemployment down and consequently failed to give due attention to the inflationary problem building up under their noses.

But economic conditions can change. The changes afoot in the world today are undoing the rigidities and inflexibilities which accompanied capitalist development for most of this century. Of course, it will still be possible for countries to run high rates of inflation through budgetary and monetary mismanagement. But there will be few inflationary shocks emerging from the cost side of the economy requiring suppression through restrictive macro policy. Indeed, there will be a continuing supply of shocks which reduce the price level. And when an inflationary shock does occur, it will be easier to contain and offset it by restrictive policy. The result will be that it will be possible to run the economy at higher levels of demand (and lower rates of unemployment) without engendering inflation.

Does this mean that central banks can drop their guard against inflation? No. It will always be necessary to be vigilant. But the balance of risks has now changed. As the Bank for International Settlements recently acknowledged, for the first time in two generations it is now right for central banks to give serious weight to the risk of deflation. Moreover, central banks must beware that, in being over-vigilant against supposed inflationary dangers, they may unnecessarily hold back their economies, thereby consigning them to high unemployment, and perhaps also to low growth.

That central banks should now have a more balanced set of objectives and risks before them, as opposed to the one-sided and all-embracing task of bringing inflation down, is a measure of success. That success is partly, but only partly, theirs. They have been greatly helped by changes in the real economy which have worked with the grain of anti-inflationary policy. As a result, we now face a remarkably attractive macroeconomic prospect. After everything that we have been through, this is a prize richly deserved.
Imagine a world without inflation: prices in the shops rising in some years but falling in others; pay rising by 2 or 3% in the good years, but static or falling in the bad ones; house prices as likely to fall as to rise; interest rates in the range 2-4%. In the post-war period of producer power companies could push up prices and groups of workers could push up pay. Now, imagine a world without inflation: prices in the shops rising in some years but falling in others; pay rising by 2 or 3% in the good years, but static or falling in the bad ones; house prices as likely to fall as to rise; in