

## New Tasks for Central Bankers

In 1848 the Sheriff of Lanarkshire recorded that whenever Bank Rate was raised, he used immediately to enlarge the available poorhouse, hospital and prison accommodation (1). Those halcyon days of central banking are irrevocably gone. Nowadays public opinion is so conditioned that increases in Federal Reserve or Bundesbank discount rates are regarded, if anything, as "bullish" signals for investment, output and employment; for the makers of policy are thought to be "leaning against the wind", and the way they lean is taken officially to confirm private guesses about the direction of the wind. More often, monetary action is just shrugged off as of little consequence anyway.

There was a time when a distinction between "monetary" and "other" policy would have been almost incomprehensible. In managing internal activity and the external balance, there was virtually no other policy but the monetary. The use of fiscal policy was not yet fully understood, and the scale of public sector operations was in any case too small, except perhaps in wartime, to have much effect. Monetary policy was alone in the field, and it was very powerful. It could hurt: Bank Rate meant the poorhouse and the Bankruptcy Court for some. Today, it cannot hurt very much and (or perhaps because?) it is not alone in the field.

When fiscal policy and other public sector operations gained in importance, there was a transitional stage (and some countries are still in that stage), where monetary and fiscal measures were decided in independent centres of power. Central bankers conducted monetary and Ministers fiscal policy. Central bankers were generally on the side of the angels, bravely working for "sound money" in the face of governmental profligacy. Ministers were generally naughty

(1) W. W. Rostow, *The British Economy of the Nineteenth Century*, Oxford, 1948, p. 108.

inflationists. Muddled as this situation may have been, it was in many ways a blessing. For it was not yet clear that Ministers must always come out on top. Central bankers usually seemed to have some chance of defeating inflation, breaking a boom and beating prices down, and sometimes they did so. The very possibility that they *might*, that prices or employment or both *can* fall, made people aware of the risks of omission or commission. With some uncertainty in the economy, the climate remained relatively sensitive to monetary control.

It is this uncertainty which the fusion of monetary and fiscal policy has all but removed. If all economic policy is unified and conducted by one and the same government, and that government is committed to using its policy tools, including the powerful public sector, in accordance with the popular will, even the faint-hearted will find it difficult to take the possibility of a major slump too seriously. For the government cannot *both* say that it is going to maintain stability *and* credibly threaten with the sort of monetary action that could hurt and depress activity. And, to pursue the tale, if people do not believe that they might get hurt, they will be less and less sensitive and amenable to guidance by indirect controls. Heavy blows rather than gentle pressures will be needed to make them alter their plans in the short run. Paradoxical as this may sound, the current disbelief in the ferocity of monetary policy obliges all economic policy, monetary and fiscal, to be more ferocious or at least more disagreeable than is inherently necessary to cope with most present-day problems of economic management.

For one reason or another, modern economies in any case have a good deal of stability built into them. A boom no longer "sows the seeds of crisis and collapse". The problem of preventing really bad slumps is virtually dead. The tasks of economic policy all lie on the narrow band between *moderately* full and *very* full utilisation of productive capacities. These seem, at first sight, relatively minor tasks: to push the economy a couple of per cent up or down between "floor" and "ceiling" as and when required should not be beyond human ingenuity. At the same time, bound up with its very stability, and with the very narrowness of the band between the politically acceptable "floor" and the "ceiling", there are in a modern economy certain features which make it exceedingly insensitive to fine steering.

### Three "Ratchets"

Insensitivity to policy pressures can be ascribed to the operation of so-called "ratchet effects" on major economic variables, namely that they can rise over time but are (or are thought) most unlikely to fall. This, in turn, has much to do with economic growth, such as it is, or more precisely with its anticipation. If general growth is expected, it seems unnecessary to adjust downwards or backwards any variable which has moved ahead too fast; for the economy as a whole is fairly sure to catch up with it before long. This feeling on the part of business and labour has profound significance. Without proper appreciation of the resulting "ratchets", one is almost certain either to put impossible burdens on monetary policy or to renounce its use in despair.

Let us therefore, look at three of these basic ratchets in some detail. In doing so, we may seem to be overstating the case. However, this will be a deliberate overstatement. The intention is to stress that this is the way the character of modern industrial economies seems to be moving; if it has not quite got there yet, it will, for the ratchet tendencies are quite clearly at work.

### The Investment Ratchet

The absolute volume of new investment increases by discontinuous jumps. After each increase, it more or less maintains the level so reached. Significant falls in investment are resisted by institutional forces.

Public investment is a large and in many countries a growing part of total investment. Because of governments' more or less successful attempts to observe counter-cyclical precepts, or simply because contractors are more easily found, orders more easily placed and work more quickly carried out for public projects when private demands for plant and building are less pressing, public investment is unlikely to fall when private investment does. But private investment itself will also tend to be maintained at least at the level reached in the immediate past. For one thing, in large concerns it is no longer solely motivated by market prospects but at least as

much by the inertia and reluctance of management to upset already sanctioned capital budgets and revise development plans which have been drawn up for several years ahead. For another, market prospects themselves will seldom call for downward revisions if the management expects general economic growth to continue. A particular company's or industry's capacity may be more than adequate today — its plant may even have been over-expanded in the past and got ahead of the expansion of its market — yet the projection of some growth of the market into the future may nevertheless make the maintenance of a given level of investment seem justified.

In short, caution, conservatism, a "wait-and-see" attitude and so forth, which used to mean suspension or *reduction* of investment activity, today are more likely to mean that people for a while *refrain from stepping up* their investment plans. An actual reduction in the rate of capital expenditure, however, would be considered quite a drastic step, and also an admission of failure, by many industrial managements.

Conversely, increases in investment tend to come in fairly sharp form as, with confirmation of the expected market growth or technical opportunities, firms draw up new long-run capital development plans. Inasmuch as the periodicity of wait-and-see and resumed expansion, of old and new long-run capital budgets, tends to be the same throughout industry, all private investment will also tend to rise by abrupt jumps from one plateau to the next. The altitudes of the successive plateaus may well follow some steady trend line, showing a constant *average* yearly rate of growth over, say, a decade or two. This may mask, but does not remove, the variation in the rate of *year-by-year* growth in the volume of investment from a zero rate to some higher-than-average rate between one plateau and the climb to the next one (2).

(2) Table 1 summarizes recent annual total investment data for the principal industrial countries of the Western world. It has no more than illustrative value, if only because "plateaus" and "climbs" do not follow calendar years, and therefore yearly totals do not bring out very well the periods of nearly constant and of sharply growing investment volumes. The second figure in each square is gross domestic fixed capital formation, and our "ratchet" hypothesis is perhaps better supported by this set of figures than by the first set which also includes changes in inventories. Decisions about inventories appear still to be taken on short-run consideration and hence are not dominated by businessmen's beliefs in the long-run growth of demand.

GROSS DOMESTIC INVESTMENT (1)  
AND GROSS DOMESTIC FIXED CAPITAL FORMATION (2) TABLE 1

	O.E.E.C. combined (in billion U.S. dollars)	France (in billion francs)	West Germany (in billion DM)	Italy (in billion lire)	U.K. (in million sterling)	U.S. (in billion U.S. dollars)
1948 (1)	25.4	n. a.	n. a.	1524	2043	57.4
(2)	23.8	n. a.	n. a.	1559	1869	50.9
1949 (1)	28.1	2520	n. a.	1625	2006	48.2
(2)	26.2	2220	n. a.	1554	2031	49.6
1950 (1)	30.6	2530	26.4	1862	1884	63.7
(2)	28.6	2250	22.2	1729	2130	56.6
1951 (1)	34.1	2500	28.2	2102	2694	65.8
(2)	29.5	2360	23.1	1890	2134	56.7
1952 (1)	32.6	2530	29.4	2085	2178	60.5
(2)	30.3	2320	24.6	2095	2143	56.5
1953 (1)	34.2	2440	30.5	2295	2503	63.4
(2)	33.0	2330	28.4	2265	2375	58.9
1954 (1)	37.6	2660	33.9	2490	2622	60.5
(2)	36.3	2540	32.2	2454	2578	60.1
1955 (1)	43.5	3020	43.4	2895	3025	73.7
(2)	40.1	2870	38.2	2706	2710	66.2
1956 (1)	45.7	3320	43.5	2030	3106	71.4
(2)	42.9	3110	41.0	2927	2841	67.4
1957 (1)	48.3	3640	45.0	3277	3262	68.5
(2)	45.1	3440	41.1	3196	2962	67.4
1958 (1)	48.1	3860	46.8	3312	3023	60.8
(2)	45.7	3510	42.9	3198	2973	62.5

Source: O.E.E.C. General Statistics, January 1960.

NON-AGRICULTURAL EMPLOYMENT (Wage-earners and Salaried Employees) (1953=100) TABLE 2

	U.K.	U.S.	France	Germany
1950	98	90	98	87
1951	99	95	101	92
1952	99	97	101	96
1953	100	100	100	100
1954	102	97	101	105
1955	104	100	103	111
1956	105	105	103	117
1957	105	105	107	122
1958	104	102	107	123
1959 (approx)	105	104	106	n. a.

Source: O.E.E.C. General Statistics, January 1960.

SHARE OF WAGES AND SALARIES IN NATIONAL INCOME (per cent) TABLE 3

	1951	1952	1953	1954	1955	1956	1957
France . . .	56.1	57.2	57.0	58.7	57.7	59.1	58.9
Germany . .	58.6	58.6	60.0	61.3	60.9	62.0	62.4
U.K. . . . .	72.3	71.7	71.1	70.7	73.2	73.4	73.5
U.S. . . . .	64.9	67.1	68.1	69.5	68.5	70.0	70.7

Source: U.N. Yearbook of National Accounts Statistics, 1958.

## The Employment Ratchet

The absolute volume of employment never falls significantly (3). Increases in unemployment may occur if the labour force itself is growing with population increase, migration from subsistence agriculture to paid industrial employment, etc. But labour once employed will seldom be actually dismissed. Because of social forces (paternalism, employment legislation, desire for good will) or on ordinary economic considerations, firms will normally do their utmost to avoid actual reductions in numbers employed.

This tendency is strengthened by the same sort of "growth" assumptions as were said to be responsible for the "ratchet" in fixed investment. A fall in the absolute level of activity in the firm is by assumption temporary if the belief in long-run expansion persists; for general growth is bound sooner or later to take up the slack. The firm will therefore only dismiss redundant labour if it is confident of being able to re-employ it when the time to do so comes, and that time is never thought to be very far off. However, with other firms probably also coming into the labour market just then, the risk of letting labour go now is felt to be great, especially if what the firm will need is not "labour" in general, but particular people familiar with particular jobs in the firm. In this sense, to maintain "job-security" by keeping redundant workers on the payroll may be a way of keeping expected labour costs down.

## The "Fair Shares" Ratchet

The share of wages in the national income never falls significantly (4).

There are two sets of reasons for the resistance to a decrease in

(3) This proposition is illustrated by Table 2. Unfortunately, Italian data for this table and for Table 3 are not available in the sources used, and inclusion of data from other sources would have affected their comparability.

(4) Table 3 illustrates this tendency in annual percentage figures. A secular upward trend in the share of wages and salaries would result from a relative contraction of peasant agriculture, as well as from a relative expansion of the "service" component of the national product (including government services) which is highly labour-intensive. However, over the short period covered by the table, these trend factors are unlikely to have had much effect. The reasons discussed in the main text above were probably more important in maintaining an upward bias and minimizing any cyclical decreases in the share of wages.

the share of wages, and either one in isolation may be strong enough to hold the share of profits down; the two together are very powerful. One set is social, and is bound up with notions of fairness or justice — notions which have an ever stronger hold on public opinion. Wage determination is increasingly becoming a political issue, even in countries whose governments profess to adhere to the ideal of free collective bargaining. Governments almost inevitably get themselves involved in wage determination partly through being large employers themselves, and partly because of the electoral significance of major industrial disputes. Thus general notions of justice exert their influence on the course of bargaining, and this influence (in the nature of the case) cannot very well take the form of "justice for capital". Any bias it imparts will be in favour of labour.

A special form of the notion of "fair shares" seeks to relate changes in wages to changes in productivity. "National" wage policies are inspired by this notion. It is said that if average money wages go up at the same annual percentage rate as average productivity, then wage-increases will be non-inflationary. This proposition, though superficially plausible, is no more true than its opposite, but its spurious connection with such a desirable objective as price stability reinforces its appeal to the public's sense of justice. For it seems only fair that if workers produce  $n$  per cent more, their real reward should also rise by  $n$  per cent, and if this also happens to be the right policy against inflation, so much the better. In principle, the linkage of proportionate real wage and productivity changes should result in a perfectly constant share of wages in the national income. In practice, however, the linkage is more likely to act as a mere floor, so that wage increases tend to be at least as great as productivity increases but may occasionally be greater, bringing periodic increases in the share of wages, or inflation, or some of both.

Beside social forces, economic ones also give an upward bias to the share of wages. The "productivity" figuring in popular discussions is, of course, output per man which includes the "productivity" of the capital employed with the labour. A rise in output per man engendered by a growth in capital per man will not necessarily mean a rise in the marginal productivity of labour and hence in its "economic" demand price in the same proportion as output

has risen (5). However, growth of the capital stock at a faster rate than of the available labour force tends to inspire organisational and technological changes designed to economise with labour so that fewer men can produce the same output, and the same number of men can produce a larger output. In other words, the production function itself will be systematically changing, causing an increase in the marginal product of labour relative to that of capital at any given total labour and capital stock. Insofar as real wages conform to the marginal product of labour, these technological changes tend to pull up the share of wages even though they are inspired by a desire for dispensing with extra labour and protecting profits.

#### The Working of a "Ratchet" Economy

"Growth with inflation" can be traced back in a simple way to the combined effect of the "ratchets" in investment, employment and the share of wages on the saving-investment balance.

To begin with, individual propensities to save are likely to be reduced, if only because greater job security lessens the precautionary incentive to saving. Moreover, a confident belief in the growth of *future* income is an inducement to save less, or actually to dissave, out of *present* income. The growing demand for consumer credit surely owes something to this inducement.

In addition, even with given individual propensities to save, the aggregate savings ratio depends on the distribution of the national income between wage-earners and profit-earners, and between the personal and the corporate sector. A higher share of wages means, *cet par.*, a lower aggregate savings ratio.

Yet the real difficulty arises not from the savings ratio being low, but from its being relatively stable. Fluctuations in domestic investment can, in principle, be accommodated in three alternative ways. Either the whole national income must fluctuate, with the savings ratio staying stable; or the savings ratio must fluctuate, with national income staying stable; or finally the external balance of payments must fluctuate. All three cannot stay stable in the face of unstable investment. Any two can be shielded from fluctuations

(5) The belief that it does mean that, and that factor shares thus stay the same, rests on the idea of an unchanging production function of the Cobb-Douglas kind.

provided the third can be made to carry the burden. For perfectly good reasons, in modern times neither national income nor the balance of payments can be made to do so; they must both be shielded. This leaves the onus of adjustment to the savings ratio.

In old-fashioned, "ratchet-less" economies the savings ratio did in fact serve as an adjusting mechanism. With the "widow's cruse" at work, a change in investment meant a similar change in the share of profits, and hence in savings. Today, however, an investment boom is only partly reflected in higher profits. To a large extent, its counterpart is claims for higher wages. Instead of the widow's cruse, the fair shares ratchet is at work. Consequently, the share of wages does not fall and the savings ratio does not rise significantly when investment rises. If, before the rise, there was no very marked unemployment and excess capacity in the economy, so that there is no "give" in national income, the stability of the aggregate savings ratio implies that any abrupt rise in investment must bring either inflation, or balance of payments trouble, or more likely both.

Moreover, once this trouble develops, it will not be cured rapidly; for the ratchets do not allow a short and sharp cut-back of investment and employment. With investment intentions maintained, inflation, the wage-price spiral and the other wearisome symptoms of the savings-investment imbalance persist until the year-by-year growth of capacity ceilings and national income eventually catches up and investment is at last comfortably matched by the savings potential.

How, then, is growth without inflation possible? Taking our ratchets literally, we can see only two ways for this to happen. One is that investment should grow, not by abrupt leaps from one plateau to the next, but by creeping upwards in steady and minute steps, always keeping to the same gentle upward slope as does the "ceiling" of the aggregate national income (and hence the savings potential) itself.

But it is almost certainly hopeless to expect this. If investment plans are raised at all, they will be raised discontinuously and by more than just a minute fraction at a time. If monetary policy set itself the task of ensuring that investment should grow at a constant year-by-year rate, it could not but fail. Nor is fiscal policy likely to succeed; for post-war experience has shown that public expenditure is not as fine a tool of counter-cyclical management as it pro-

mised to be. What it undoubtedly can do is to keep all investment, and the "floor" of economic activity, fairly high — which, however, is not the same as keeping it on an even keel.

The other alternative is to run the economy well below capacity so that when investment jumps, it should be able to do so without hitting the ceiling. Under this alternative, excess demand is prevented by having a safety margin of spare capacity in hand. When investment does expand, it just takes up the slack, and that is all. Then, as the economy continues to grow while investment keeps level on a plateau, spare capacity gradually builds up again, room is created for another expansion, and so it goes on.

One or two of the most prestigious monetary authorities have in recent years been leaning towards this sort of anti-inflationary strategy. But it has its costs and dangers. It is fair to suppose that when investment does jump, it will attempt to jump by as much as ten per cent or more. To avoid inflation, savings must jump with it by an equal percentage. However, if the share of wages cannot fall and that of profits cannot rise in the boom, the share of savings will not sufficiently do so either. To get a ten per cent increase in savings without a significant rise in the ratio of savings to national income, it is necessary that national income itself should rise by about ten per cent — which it can only do if, prior to the boom, it was running at least ten per cent below the "ceiling".

Such degree of slackness may be too heavy a price to pay for anti-inflationary insurance (6). Moreover, there is the risk — though perhaps overrated in the recent alarm-mongering about, for instance, the American stagnation — that keeping the economy slack might discourage the very expansion in investment for which it was designed to reserve headroom.

Be that as it may, it seems distressing to have to conclude that this is the best economic policy can do — that modern economies just do not lend themselves to more refined management.

(6) There is, of course, the very respectable argument that under-utilization is nothing to worry about. If it is the necessary condition for a fast rate of increase of output, more rapid growth over the years will in due course compensate for the output lost through keeping it below capacity. The choice between higher initial output and employment on the one hand, a faster growth of a smaller initial output over a period on the other, is then no more than the familiar classical choice between present and future. It reduces itself to a matter of time preference. Moreover, it is widely believed that under-utilization is a necessary condition for faster growth, mainly because it alone can prevent wages from running away with the economy. (Cf. *The Council on Productivity, Prices and Incomes*, First Report, para 117; F. W. PALSH, "Inflation in the U.K., 1942-57", *Economica*, May 1958).

### Can Interest Rates Cope?

In all this, nothing has been said about the effect of interest rates on either investment or saving — except the resigned remark that interest rates tend to be shrugged off as of small importance.

Is, however, this really right? After all, interest used to be, and in many economics textbooks still is, regarded as the marginal regulator *par excellence*. Yet a large body of opinion has virtually despaired of its efficacy in this role.

It is held that savings are entirely determined by the level and distribution of the national income and social habits. Interest is partly an incentive to saving, but partly a dis-incentive, for the higher it is the smaller the amount of saving a man must accumulate to secure a given retirement income and so forth. Therefore, it is said, it is best to regard saving as quite irresponsive to interest rates.

For the irresponsiveness of investment to interest rates, two reasons tend to be given. The first is that, because the maintenance of full employment and aggregate demand is nowadays taken for granted, the demand for new capital has become highly insensitive. When investors have little fear of the future, they take the bit between their teeth and ignore gentle monetary guidance. Changes in interest rates of one or even two per cent are too small to have any perceptible effect on their plans, while still larger changes (particularly in long-term rates which must, for various reasons, stay fairly stable) are impracticable.

The second explanation blames the absolute lowness rather than the relative stability of rates. Because the economy is thought to be depression-proof, subjective risk factors no longer depress the expected profit rate. The subjective yield of real capital has thus risen way above the current rate of interest. If people confidently expect to make over ten per cent on capital, it will not matter to them whether interest rates are five or six per cent, though it would, perhaps, matter whether they were ten or twelve per cent. The whole demand curve for new capital is, as it were, beyond the reach of any practicable monetary policy. Whatever it is that determines the actual volume of investment, it cannot be the sort of interest rate level — a paltry four to seven per cent — which rules in civilised countries. Yet to push that level up into the stratospheric range where investment *would* become marginally sensitive to the cost of borrowing, is unthinkable.

Plausible as all this sounds in a static context, it is much too defeatist in a dynamic one. We may safely concede that where five per cent is ineffective, a once-for-all increase to five-and-a-half would not produce much of an effect either, provided it was to stay at five-and-a-half forever after.

Take, however, the same actual change coupled with dynamic expectations of some further change. The actual change reduced the capital value of a ten-year bond from 100 to 96.1, or roughly by 4 per cent. He who expects the rate to move back to the original five per cent within a year expects this capital depreciation to be restored. Thus he is in effect reckoning that money placed for the next twelve months should yield about  $9\frac{1}{2}$  per cent (made up of  $5\frac{1}{2}$  per cent current interest and 4 per cent expected appreciation in the price of the bond). For the holder of such bonds,  $9\frac{1}{2}$  per cent is the reward for not selling them till next year. For the prospective investor,  $9\frac{1}{2}$  per cent is then the opportunity cost of investing in physical capital now instead of waiting till next year (7).

Needless to say, *average* market opinion never expects a rise in interest rates to be reversed; if it did, the reversal would take place at once. However, for marginal changes in aggregate investment intentions it is sufficient that *some* people should disagree with the average market opinion about future rates.

As we have seen, for those who do disagree even moderate changes in actual market rates may be tantamount to tremendous swings in "subjective" rates from, say, a low of 1 per cent to a high of 10 per cent or more (8).

These are sharp changes and, at the high end, stratospheric levels indeed; with disagreement in depth, we may thus get the

(7) Conversely, he who expects the rate to go on rising from 5.5 to 6 per cent within a year would reckon that to borrow on ten-year bonds now rather than next year would only cost him about 1.5 per cent (made up of 5.5 per cent current interest for the year less about 4 per cent depreciation in the price of the bond he will have had sold or issued).

(8) Those who expected a rise in the bond rate to reverse itself would naturally seek an advance or other short-term bridging finance as an alternative to deferring their plans. It is on their actions that control of bank credit would have sharp effects. This goes against the now fashionable view that "squeezing" bank credit is futile, because if you cannot raise money from the banks (short) you will simply go elsewhere (long), and that uncontrolled insurance companies, private bond sales or the mortgage market can defeat the purpose of controlling the banks. This would only be true if all prospective spenders were indifferent between borrowing short or long; which, in turn, is only the case when they all agree with the average market opinion about future rates, i.e. when there is unanimity in the market.

effect from moderate and fairly stable interest rates that we feared could only be got from extremely high and volatile ones.

It should not be beyond the ingenuity of the monetary authorities to create sufficient division in market opinion. What seems to be essential is that open-market action should be bold and decisive, "too much" rather than "too little", laying the basis for a *reversal* rather than for further small and timid moves in the *same direction*; while a once-for-all change (expected to stay forever) is merely ineffective, the suspicion of future changes in the same direction can actually have perverse effects.

#### « Playing » the Durable Markets

Vastly more important, however, than expected changes in bond prices are expected changes in the prices of currently produced goods whose purchase can easily be delayed or accelerated. The more developed an economy, the higher proportion of its total expenditure is spent on this kind of product; roughly, on capital and durable consumer goods. If only central bankers could learn to play upon expectations of durable goods prices, they might well regain much of the potential influence over the course of the economy which they lost through the presence of the various modern political and social constraints, ratchets and floors. This becomes readily apparent if we contemplate how expected price changes affect the timing of expenditure on durable goods.

The opportunity cost of buying any durable good now rather than next year can be defined as the money rate of interest *less* the expected rise in the money price of the good in question. This cost would have to be compared to the yield of the good, e.g. to the expected satisfaction from possessing a durable consumption good. The cost of purchasing now, rather than postponing till after an expected change in the price has taken place, can actually be negative if the period concerned is not very long and the expected price rise not very small; for then the gain from *anticipating* the price increase more than offsets the interest charge on the outlay for the period. Conversely, the cost is positive, and possibly very high, if the price is expected to change downward, for then the loss from having bought *too soon* must be added to the interest charge. For instance, if the money rate of interest is and stays 6 per cent, and

the price of a durable good is expected to fall by 10 per cent within six months and then stay stable, buying it now involves a cost of 26 per cent, while waiting for it for six months would be rewarded with a 26 per cent profit. Once the expected fall in the price materializes, the cost of going ahead with the purchase, or the reward of further postponing it, drops back to 6 per cent.

Subjective opportunity cost changes of such magnitude must powerfully affect the *timetable* of placing orders and letting contracts for a given investment programme. If investment suddenly leaps ahead too fast and prices of building or machinery rise, the price increase can cause the timetable of ordering to accelerate (if a further price increase is expected) or to slow down (if the original price increase is expected to reverse itself).

Just as powerful, however, could be the effect on saving, and particularly on personal saving. Aggregate saving intentions over a longish period do not have to increase (though no doubt it would be welcome to policy-makers if they did). It is sufficient if the time-distribution of an unchanged amount of saving is altered so that more of it is done when investment is booming and less when it is merely idling along on a plateau. This would be the result if purchases of durable consumer goods were postponed in response to increases in their price.

If the great mass of consumers will, by rearranging the timing of its planned purchases of television sets, motor cycles or refrigerators, save or dissave according as prices go up or down, the aggregate savings ratio in the economy will fluctuate in the required direction even with the share of wages being constant or rising.

All this is best seen in a historical perspective. When a price is believed to have a "normal" level, deviations from that level induce expectations of a return to normalcy, and hence acceleration of durable goods purchases when the price falls and postponement when it rises. Given this belief in normalcy, price increases can therefore powerfully correct excess demands. However, in most countries of the West we have had two decades which eroded this belief. Instead of a normal *price*, investors and consumers got accustomed to a normal *rate of increase of price*. They learnt that after each price increase, the price either goes up further or stays at the level it had reached; it, too, obeys a "ratchet" which is really the resultant and culmination of the other, more basic ratchets in employment, wages and investment. As long as this price ratchet

is thought to be at work, people's expectations will be of the wrong sort, and instead of the hoped-for effects on investment and saving, price increases will have either no effects or perverse ones.

This, undoubtedly, is the crucial problem of modern monetary management. Price increases are now its enemies: *it has got to convert them into allies*. Yet it is useless to ask people, investors and consumers alike, to expect a price to fall in the near future just because it has risen in the recent past. In the last twenty years or so, they have been educated out of this, and before monetary policy can hope to be *helped rather than hindered by price-changes*, it must first teach people to believe that prices are liable to go down as well as up. People will learn by experience, and the *groundwork for rehabilitating monetary policy* consists above all in creating some actual experience of price falls following after price rises.

It may be next to impossible, and perhaps undesirable, to bring about a perceptible fall in the general price level; but this is not necessary. Economists are interested in general price indices, while the investors and consumers (who in the last analysis make the general price level) are interested in the prices of selected goods they contemplate buying now or in the future. *Some* prices have occasionally to fall in order to make people believe that a price which has just risen will soon fall, for prices in general are liable to move both ways and not only upwards.

Weapons are available in the armoury of the authorities to bring about sporadic falls in some durable goods prices (and to give such falls plenty of publicity). They include such relatively orthodox measures as the unexpected imposition of selective credit controls forcing weak holders to unload stocks at cut prices, or sudden and drastic import liberalisation in selected goods. However, more unorthodox measures may also be necessary. Central bankers are accustomed to play, by open-market operations and by regulating the flow of bond issues, on the prices of fixed interest securities. Ordinary shares (i.e. claims on existing real capital whose prices should reflect the attractiveness of acquiring *new* capital assets) are an equally logical and perhaps more important target for open-market action by the monetary authorities. They may, in order to get a grip on the economy, even have to play for a period upon actual durable goods prices by conducting "open-market operations" in cement and steel beams, washing machines, refrigerators and standard machine tools.

The important thing is to aim, not at stabilizing prices, but at *making them fluctuate* up and down, so as to accustom prospective buyers to think speculatively about the timing of their actions. Neither steadily rising nor stable prices help monetary management in regulating activity; only fluctuating ones can. They are a short-run ally, but the long run is after all made up of short ones.

Once the climate of expectations is "right", interest rates must begin to get "leverage". Working upon and in turn subjectively magnified by price changes, they should almost by definition be able to cope with the most unwieldy of modern economies, despite all the downward rigidities or "ratchets" in investment, employment and the factor shares. In pre-war times, expectations in a sense used to look after themselves, whereas now, at least for a transitional period, the authorities have to look after them. This is certainly not to say that monetary policy, and interest policy in particular, has become necessarily ineffective. All it means is that, like nearly everybody else's, the central banker's task has become a more demanding one.

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