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FROM PRE-KEYNES TO POST-KEYNES

by

Abba P. Lerner

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Pre-Keynes: With a stable money supply, economic prosperity and price stability require only that wages (and thus prices) behave themselves and adjust to the money supply.

Keynes: With sticky wages (and thus stable prices), prosperity requires only that the money supply behave itself and adjust to the wage (and price) level.

Post Keynes: Both money supply and wages must behave themselves. For prosperity money must adjust to wages. For price stability average wages must rise only with productivity.

From Pre-Keynes to Post-Keynes

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Stagflation, the simultaneous inflation and depression from which we are now suffering, is seen by many as a "paradox" that demonstrates the bankruptcy of economic science. I see it rather as a confirmation of the deeper economic understanding developed in the last half-century. This development has been from a Pre-Keynesian over-concentration on micro-economics (which deals with the automatic market mechanism), through a Keynesian over-concentration on macro-economics (which deals with government policy), to a Post-Keynesian integration of Macro-economics with micro-economics to deal with the combination of depression with inflation.

The Classicals

The pre-Keynesian economics which, following Keynes, I shall call "classical," was basically micro-economics and had not integrated money into the theoretical system. It took prices seriously only as relative prices--as the rate of exchange of goods for goods in the "real" economy. The "money veil," which had led to mercantilist confusion of money with real wealth, was so perfectly transparent to the classicals that they could look right through it and see only the "real" or barter economy where the only prices are relative prices. The quantity of money in the economy was considered relevant only for the absolute price level.

When unorthodox amateur economists suggested that depression might be due to insufficint total (macro-economic) demand for all the goods and services, because of "over-saving" or "under-investment," they were confronted by the established economists with examination questions in micro-economics like: "Would not an excess supply of savings lower the rate of interest and thereby cure the excess of supply over demand?" The amateur economists of course always flunked.

In the classical scheme there was no need for government concern about either inflation or depression. There was no danger of inflation as long as the quantity of money was kept relatively stable by the constancy imposed by nature on the total quantity of gold that had been mined over the ages. With the invention of paper and credit money this natural limitation to the quantity of money was replaced by legal limitations to the creation of money by private bankers (the reserve requirements) and by constitutional limits to the creation of money by the government. There was no danger of depression because of the (micro-economic) laws of Supply and Demand. An excess of the supply of anything over the demand for it would cause the price to fall until it brought the two into equality, and the market would be cleared. Involuntary unemployment was an excess supply of labor. It would cause the price of labor to fall relatively to prices. At the lower real wage the market would be cleared, and full employment automatically restored.

Keynes

Keynes' 1936 book, The General Theory of Employment Interest and Money, which inaugurated the Keynesian revolution in economic thought, began by pointing out that in the classical argument the reduction in wages was a reduction in the real wage in a barter economy. It meant that less of the product went to the workers and more was left for the employer. That was what made it profitable to employ more workers. But in a money economy it is only the money wage, not the real wage, that is subject to negotiation between workers and employers.

This does not matter in micro-economics. A money wage cut in a small (micro-) part of the economy would have no significant effect on the demand for and the price of the product. More profit would be left for the employer and it would pay him to hire more men and expand his output. But with a general reduction of money wages one cannot expect prices in general to remain unchanged. Competition would reduce prices in proportion to the reduction in costs. The prices of other productive factors competing with the cheaper labor would also be reduced. All costs, all prices, and all income could be reduced in the same proportion as the money wages. There would then be no reduction in the real wage and no increase in employment.

Keynesian Classicalism

This did not destroy the classical conclusion. It only called for a further development of the argument in macro-economic terms. Keynes provided this by turning from the supposed effects on real wages to the effects on real spending. The reduction in money wages leads to reductions in prices. As this does not cure the unemployment, the wages and prices continue to fall. When they have fallen far enough to make the purchasing power of the existing money stock great enough, to make the owners of the money stock flush enough with money (as less and less is needed with the lower prices) they will spend enough (or lend enough to others who will spend enough) to buy enough more goods and services, to call for enough additional workers to restore full employment.

Keynes thus turns out to be not only the supreme classical economist,[1] who put the finishing touches on the classical edifice, but also the supreme monetarist in showing that the completed classical theory is indeed essentially monetary. What happens to real wages plays no part in the completed Keynesian-Classical argument.

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[1]This seems to have been vaguely recognized by those classical economists who (insensitive to the sarcasm in the "enoughs") declared "We are all Keynesians now."

Keynes' purpose in completing the classical micro- argument was of course not to praise it but to bury it. Spelling it out made it clear that the conclusion rested essentially on the increase in the real value of the money stock, and that the practical policy choice was between two ways of achieving this. One way was to suffer depression severe enough and long enough to bring about enough micro-economic reductions of money wages and money prices to bring about the required macro-economic increase in the value of the money stock. The other way was to provide the same increase in the value of the money stock by increasing the number of dollars. The choice was between adjusting the prices to the money and adjusting the money to the prices. The latter method would achieve all the beneficial results of the former while avoiding both the depression and the injustices of the increased burden of all existing monetary obligations. The fundamental Keynesian Revolution was essentially a policy revolution. It consisted of choosing the second method and calling on government ro provide the additional money.

Macro-economics

The Keynesian Revolution thus pushed discussion from micro-economics to macro-economics, and policy from waiting for automatic (micro-) market cures for depression to exercising governmental (macro-) policy to regulate the overall quantity of money (with an assist, in emergencies, from fiscal measures).[2]

This concentration on macro-economics is even more obvious in my own formulation of the Keynesian revolution as "Functional Finance" with its three pairs of governmental instruments for regulating the overall volume of spending in the economy--borrowing and lending, buying and selling, and taxing and subsidizing.

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[2]The highly fashionable contrasting of "Keynesianism" with "Monetarism" arises from a misuse of the term "Keynesianism" for the special fiscal measures prescribed by Keynes (and by no means only by Keynes) in the depths of the depression when investors were afraid to invest. There was such a collapse of confidence that neither method of increasing the real value of the money stock would have helped. Only increased spending by the government, or by the beneficiaries of tax reductions, could be effective in increasing spending and employment until investors' confidence was restored. Hence the call for fiscal measures.

The classical method of increasing the real value of the money stock is spoiled only by the rigidity of money wages. This is what makes the required depression too costly. Nostalgic classical economists are therefore intrigued with the possibilities of reducing the rigidity and letting supply and demand take care of the problem.

Unfortunately, the measures that could in practice be applied to diminish the wage rigidity, instead of making things better, make things worse. Weakening the trade unions, penalizing strikers, reducing unemployment pay, hampering credit to unemployed workers, cutting off school lunches - and other such measures for inducing workers to agree to (money) wage reductions - work slowly and unevenly. The wage and price reductions are scattered and gradual. Instead of the lower prices which would cure the unemployment we get falling prices. Buyers postpone their purchases in the expectation of bigger bargains later, reducing the spending and aggravating the depression. Keynes therefore approved of workers' resistance to these measures for lowering wages in general.

Much sport has been made of Keynes' inconsistency in blaming wage inflexibility for the failure of the classical automatic cure for depression, even while blaming wage flexibility for aggravating depression. But the two flexibilities are completely different concepts. Ideal flexibility would indeed yield prices low enough to validate the classical theory, but Keynes used it in his completion of the classical argument only to show its unpracticality. Practical flexibility, the kind that one could reasonably hope to reach in practice, was opposed by him because it could result only in the falling prices which aggravate depression.

An Asymmetry

For upward movements in wages and prices, Keynesianism remained perfectly classical. The laws of supply and demand did not work for a general deficiency of demand, but the law of excess demand lost none of its power to cause wages to rise in response to excess demand - i.e., to an increase in total spending when there already was full employment. This asymmetry--wage and price flexibility upward but inflexibility downward--indicates that something was missing in the Keynesian revolution.

Missing was a micro-analysis of how the determination of particular wages (and prices) is affected by the downward abrogation of the market laws of supply and demand. The answer is that wages are determined not by the market, but by wage administrators--by the wage negotiators representing workers and employers, who have the power to command wages to stay up even when the market is telling them that they should be going down because supply is greater than demand.

Stagflation

Keynesian economic policy to avoid severe depression was beginning to be applied with some success in the 50's and 60's. Then the wage administrators discovered that their power to defy the market was not limited to keeping money wages from falling in the face of depression. They discovered that they could also use their power in the upward direction and get money wages to rise. And so stagflation was born--rising prices together with depression or recession.

What gave the wage administrators this power was something about the laws of supply and demand that had not been fully understood. Like the physical laws of Newton the traditional formulation of the laws of supply and demand turns out to be not quite correct. They also have a "relativity" that had been overlooked.

In the traditional formulation excess demand causes the price to rise and excess supply causes the price to fall, while equality of supply and demand keeps the price where it is. But this is correct only if the initial expectation is one of price stability. If the price has been rising at, say, 10 percent per annum and is expected to continue to rise at that rate, an excess of demand - a shortage of supply - will raise the expectation, replacing it by a higher expectation of price rise, perhaps 12 percent. A deficiency of demand will reduce the expectation, perhaps to 7 percent; while a clearing of the market, equality of supply and demand, would merely confirm and strengthen the previous 10 percent expectation. The price will not stay where it is. It will continue to rise at the previous 10 percent rate. It is only an understanding of this "relativity" that has made it possible for many countries to keep on functioning in the face of continuing inflation.

By the early 1970's extraneous events had brought about a rate of inflation in the U.S. of about 6 percent per annum which was generally expected to continue. It was kept going by the wages rising to keep up with prices, and the prices rising to keep up with costs. The same wage administrators who, with stable prices, had prevented wages from falling, now did exactly the same thing in real terms by preventing wages from falling behind the expected 6 percent rise in prices. And so the stagflation could continue.

Anti-Keynesianism

There were three different responses to the phenomenon of stagflation. The "Keynesian classical" economists, who had absorbed Keynes' completion of the classical argument but were reluctant to accept the Keynesian policy revolution, responded by hailing stagflation as a paradox with which the Keynesian

Revolution could be vanquished. The asymmetrical Keynesian theorem, that excess demand always caused inflation and deficiency of demand always caused depression, they read backwards. They read it as saying that inflation is always caused by too much spending and depression is always caused by too little spending. From this it followed that the co-existence of depression and inflation meant that there was too much spending and too little spending at the same time. This is of course nonsense, so Keynesianism must be rejected as a mistake. In due deference to the departed, Lord Keynes was declared not really guilty of Keynesianism.

The government, also reading backward that inflation is always caused by too much spending (too much money chasing few goods), responded by trying to check the inflation by holding down the level of spending. But they were also partially influenced by the practical political wisdom that government spending and easier money create jobs. Under the combined pressures of desire to be re-elected, some glimmerings of Keynesian economics, concern for the unemployed and fear of ruinous business depression, they switched (temporarily) to (Keynesian) expansionary policies and increased total spending in the economy whenever the rate of unemployment threatened to reach double digits.

Incomes Policy Proposed

Keynesians, seeing wages and prices rising even though there was much less than full employment, realized that functional finance was not enough. Their response was to turn again to governmental macro-economic policy, which had been so successful in dealing with depression, for a solution to the new problem of "premature inflation"-- inflation setting in before increased spending had brought about full employment.

I was one of those Keynesians. In the middle 1940's I suggested that prices could be kept stable by certain regulations to stop wages from rising more rapidly than productivity.[3] In a series of lectures throughout the country I proposed some rules for differential wage adjustments based on the different degree of unemployment in different segments of the country. However, the most frequent reaction was the "joke" that appointing all the administrators required for making the wage adjustments would by itself solve the unemployment problem, forgetting that these were already employed by business and by labor as wage negotiators.

My Economics of Employment, published in 1951, distinguished between "low full employment" when the unemployment, although too severe to be socially acceptable, was severe enough to prevent wages from rising more than productivity, and "high full employment" with only the "frictional" 4 percent or so of unemployment that could be reduced only by improvements in the structure of the labor market.

"Low full employment" surfaced again much later in Milton Friedman's "natural level of employment." However I did not consider "nature" to be so omnipotent. I provided some suggestions for wage regulations with two objectives: (1) to stabilize the price level by awarding wage increases equal, on the average, to the expected average rate of increase of productivity in the economy (say 3 percent per annum) and (2) to bring about appropriate **relative** movements of wages by awarding higher wage increases in sectors where there was a less-than average over-supply of labor (unemployment relatively

[3] In a Seminar at the New School for Social Research on the Integration of the Social Sciences, later in more detail in my Economics of Employment (1951) and with some further elaboration in my Flation (1972, 1974).

low) and lower wage increases (or no wage increases) where there was a more-than-average over-supply of labor (unemployment relatively high). These ideas also surfaced later in theoretical discussions of "incomes policy" and in practical policies of "wage-price guideposts" under Kennedy and as "wage-price guidelines" under Nixon.

Incomes Policy Discredited

These policies were unsuccessful. There are a number of obvious reasons. The incomes policies were applied unimaginatively and reluctantly by administrators who did not believe in them and who had consistently declared that they could not work. So much emphasis was put on objective (1), the desired average increase in wages, that it came to be regarded as the universally legitimate, fair, and just rate of increase to which everyone was entitled. Objective (2), the adjustments in relative wages, was lost sight of. When a severe shortage of some special skill called for an above-average increase in a wage, this was resisted. The regulation, instead of working as a (crude) substitute for the price mechanism, became a price control--an interference with the price mechanism. It interfered with the mobilization of the scarce skills. When the resistance was finally overcome by a bureaucratic recognition of the necessity of an "exception" (or was evaded by the development of a black market), workers everywhere else demanded equal treatment. The regulation then broke down and incomes policy was abandoned.

Micro-Economics

But there is a more fundamental reason underlying the breakdown of incomes policy. This was the Keynesian neglect of micro- or market- analysis in turning to macro-policy--to governmental regulations--to solve the new problem of stagflation.

The macro-economic task of adjusting the level of money spending to the wage and price level by monetary and fiscal policy could be taken over by government because that does not interfere with the market determination of wages and prices. But incomes policy does. Uniform adjustment of all wages freezes relative wages and prices, and the market mechanism is immobilized. Continually changing conditions generate shortages and surpluses which remain uncorrected and the regulation must break down. Differential wage adjustments for different levels of unemployment in different sectors does tend to correct the shortages and surpluses. But it is still an incomparably crude artificial substitute for the market. It mobilizes neither the specialized knowledge, nor the personal interest, of the man on the spot. The rules inevitably become much too complicated for general use long before they become sophisticated enough to be able to deal with all the different conditions which are effectively handled, in a market system, by the decentralized decision makers--the men on the various spots.

Incentives

The need for mobilizing the incentives and the initiatives of the decision makers throughout the economy in the operation of an incomes policy was recognized by Wallich and Weintraub in their "Tax Incentive Incomes Policy" (TIP).[4] While maintaining the same average corporation income tax rate, this would impose higher corporation tax rates on different corporations based on the degree to which the corporation raised the wages it pays. Its tax rate would be higher

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[4]Wallich and Weintraub, "A Tax-based Incomes POlicy", Journal of Economic Issues, June, 1971, Weintraub, "An Incomes Policy to Stop Inflation" Lloyds Bank Review, January 1971, and Keynes and the Monetarists, 1973.

the more its wage-increase is above a national norm established by the government.

TIP constitutes a movement towards mobilizing the market micro-mechanisms. The corporations would weigh the benefits from granting higher wage increases against the costs of the higher tax rates incurred. The higher wage increases would be granted only by corporations which could pass on the cost (of the higher tax as well as of the increased wage) to their customers, and this would properly be where their products are more urgently demanded.

Inflation-Pollution

A supplement to this scheme, suggested by Lawrence S. Seidman[5] would impose differential payroll tax rates for different wage-rate-increases below the norm (in the form of rebates on the payroll tax for more moderate wage rate increases). This modification makes the scheme somewhat more like the proposal suggested by Professor Machlup, and put forward in my Economics of Employment (p. 239) "to make the excess wage payments non-deductible as legitimate business expenses" so that they "would come out of the employers' own pockets." It would increase the efficiency of TIP by equalizing the (payroll tax) cost of equal wage increases (for wage increases below the norm). But I find myself more deeply indebted to Seidman for another contribution. He threw a sudden bright light on the whole issue by an astonishing statement of the obvious. He pointed out that raising average wages by more than the average increase in productivity is a pollutive activity bringing about the

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[5]Letter to the N. Y. Times December 22, 1976.

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harmful environmental externality of inflation.[6] Inflation-pollution is thus comparable to oil-spill-pollution or noise-pollution, but much more serious.

This applies only to cost-inflation or wage-push inflation--the kind of inflation that is compatible with less than full employment. Where the inflation is due to excess spending--to attempts to buy more than the economy can produce--there is no externality to be internalized--no inflation-inducing behavior by individuals or firms to be discouraged. The obvious solution is for the government to eliminate the excess spending. On this the classicals and the Keynesians see eye to eye.

The same is true for depression. Keynesians and classicals agree that the cure lies in increased real spending, attainable through an increase in the real value of the money stock (except in time of economic prostration, with a liquidity trap or a collapse of investor confidence, when increasing the real value of the money stock does not help). They differ only on the method for achieving the increase in the real value of the money stock. Only when inflation is caused not by excess demand but by wage increases greater, on the average, than the average increase in productivity, does pollution theory have to be brought in. Raising wages by more than productivity is the inflation-generating activity.

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[6] Seidman, "A New Approach to the Control of Inflation," Challenge July-August, 1976.

The recent innovation of turning to market mechanisms for protecting the environment from pollution permits a much more efficient and much more far-reaching mobilization of incentives than is possible with the differential tax rates just mentioned. It allows a finer gradation of the incentives in accordance with the urgency of the behavior they are to promote and it properly affects <u>all</u> potential polluters and not only those who pollute above some "norm." This should not be surprising because the development of the theory and practice of environmental protection is nothing more than a harking back to the pre-history of the market mechanism when freely available natural phenomena first became scarce resources. Exactly the same novelty must have been experienced when not pure air but <u>land</u> first became scarce. It was then that we departed from "that early and rude state of society" of Adam Smith's famous deer and beaver parable "which preceded ... the appropriation of land." The imposition of a charge for the use of land constituted a shocking revolutionary innovation that violated what had been taken for granted as an inalienable natural right.

<u>Social Efficiency</u>

At the heart of environmental protection theory is the social efficiency principle that any act that damages anyone is justifiable <u>only if the benefit is greater than the damage</u>.

This condition is brought about automatically if the party who would be damaged by the act is in a position to veto it. The beneficiary from the act (A) will then have to compensate fully the veto holder(B). He will do this only if the benefit to himself is greater than the damage to B, so that even after paying B enough to persuade him not to exercise his veto - i.e. enough to compensate him fully for the damage - A will still have some gain left over.

The veto guarantees that the act will take place only if the benefit is greater than the damage.

But B's veto itself damages someone else. It damages A. By the same principle it too should be exercised only if the benefit is greater than the damage. Fortunately this is also achieved automatically. The situation is symmetrical. The benefit (to B) from the veto is the avoidance of his damage from the act in question. The damage (to A) from the veto is the loss of his benefit from the act. The veto will be used only if the minimum compensation demanded by B is greater than what A is willing to pay, and that will be because B's benefit from exercizing his veto is greater than A's damage from the veto.

Social efficiency is achieved even if B does not have veto power, provided A has the full power to decide whether the act should be undertaken or not. If the damage (to B) from the act is greater than the benefit (to A), the act will still be prevented because B can then fully compensate A for refraining from the act and still be better off than if the act were undertaken. If the benefit (to A) is greater than the loss (to B), B will not be willing to pay enough to get A to abandon the act. The symmetry is complete.

What is necessary for the socially desirable result, for social efficiency, is only that the one or the other should have complete power to decide whether the act should take place or not. The rest is done by mutually beneficial agreement between the parties. Whether it is A or B who has the power to decide does not affect the achievement of socially efficient <u>allocation</u> of resources between different <u>uses</u>. It is important only for the socially efficient <u>distribution</u> of income and wealth between <u>persons</u>.

Efficient allocation of resources by mutual agreement is also achieved automatically where an act by A benefits B while it damages himself. The act will nevertheless take place if the benefit is greater than the damage. B will induce A to perform the act by fully compensating him. B will still have some gain left. In all cases, those to whom the decision matters most get their way, either by adequately compensating the opposing side, to whom it matters less, or by rejecting the (necessarily inadequate) compensations offered.

By now it should be obvious that we have covered not merely what is usually called "pollution" but the market system as a whole. Just as pollution is just one more case of using up some part of a scarce resource, so is the using up of part of <u>any</u> scarce resource a case of pollution, a despoiling of the environment, by leaving less of the scarce resource for other uses. The purchaser of any good in a free market, just like the B in our last example, has to compensate either the producer who would rather not have to work at making it, or the alternative user of the good (or of other goods that could have been made instead). The purchaser is able to buy the good because it matters more to hmm. That is why he is willing to pay enough to get the other side, to whom the decision matters less, to make the good available.

Government and Market

This brings us nearer to our Keynesian-classical problem of determining when the government is responsible for the proper working of the economy and when the free market does the job, so that there is no need for government concern. But before we can deal properly with this we have to go back still further to the still wider question: When is government needed at all?

There is no call for government concern when a person does something for himself which does not affect anyone else, anyone external to himself. Indeed any such interference by government is generally regarded as a violation of individual freedom. The same is true whenever two or more individuals engage in a mutually beneficial agreement by a free exchange of goods or services or other benefits, and nobody else is affected thereby. Again there are no externalities and no call for governmental concern.

Of course government must first provide the conditions for the possibility of free exchange, but this too turns out to be a case of the correction of an externality--perhaps the most important of all bad externalities--namely that involved in anyone "taking" something without due consideration of the deprivation of those for whom less is left over. In more usual language, the first responsibility of government is to establish security of property (private or public), and outlaw the use of force or fraud, including the force inherent in monopolistic and monopsonistic power over price. Anyone who wants to "take" anything will then have to obtain the consent of those harmed by the "taking." He gains the consent by giving something in exchange. In a money economy he pays money. He has to buy instead of to "take."

Optimal Pollution

Protection of the environment has received more attention than "improvement of the environment." Economists, faced with the popular notion that pollution should simply be prohibited, have pointed out that there is an appropriate degree of discouragement that would result in an optimum quantity of pollution. This is where the marginal social benefit from the activities which result in pollution is just equal to the marginal social harm from the pollution.

Further restriction of pollution would do more harm than good. The optimum degree of discouragement would be achieved by the optimum charge per unit of pollution committed. The optimum charge is one that is just equal to the damage done to others by an additional unit of pollution.

In many cases bringing about the optimum charge for a pollutive activity calls only for extensions of the market mechanism to previously unconsidered scarcities. This means recognizing new rights of those affected, rights which enable them to participate in the deals. They can then bargain for possible benefits or for compensation for damages. What had been externalities are thus "internalized." The optimal degree of pollution has been agreed upon, and government can retire from the field.

But there are important cases where it is not possible to have all the beneficiaries, or all the victims, participate in the bargaining. It then remains for the government to act on their behalf and correct for the externality by applying appropriate degrees of discouragement to activities with bad externalities and of encouragement to activities with good externalities. Where there remain bad externalities which are not internalized by imporved market mechnaisms government is called for to <u>impose</u> the optimum charge. Fixing the optimum charge will bring about the optimum quantity of pollution.

Optimal Inflation

We are now ready to deal with inflation as a pollution, It is not possible for all those damaged by such inflation to get together to bargain with those responsible for bringing it about. It cannot therefore be cured by an extension of the market mechanism through the creation of individual property rights of "freedom from inflation damage." It is necessary for the government to step in and provide the discouragement of inflation-generating acts.

The Weintraub-Wallich TIP proposals and the Machlup-Lerner proposal move in this direction, but they compare unfavorably with the devices that have been developed in the theory and practice of environmental protection. They provide for higher taxes (to discourage excessive wage increases) only on firms whose wage increase exceeds the wage increase norm. But the norm is not applicable to the firm's wage increase. It is only the average wage increase in the economy as a whole which has to be kept to the average productivity increase in the economy as a whole. If the average wage increase is excessive, social efficiency requires that all wage increases be equally discouraged. The Seidman addendum does apply differential taxes for different wage increases less than the norm, but that still does not make the discouragement equal for all wage increases. Even for wage increases above the national norm, TIP would make the same wage increase much more expensive for a corporation whose profits are high relative to its wage bill.

Furthermore all these proposals leave open the question whether the charge provides the optimum degree of discouragement. Its authors seem to have been concerned only with objections that the charges, set by government decree, would not be powerful enough. What is required is a discouragement of wage increases (when otherwise wages would rise more than productivity) which applies with equal intensity to all wage increases and which is equal to the marginal damage caused per unit of wage increase.

It is, of course, very difficult, if not impossible, to figure the marginal social damange from a unit of inflation-generating excessive wage increase, but this problem too has been solved by the environmental protectionists. If it is hard to figure the marginal damage from a pollutive act, which must determine the optimum charge, the total quantity of pollution to be permitted may be set instead. But the optimum allocation of the pollution still requires each polluter to have to pay the optimum charge. This problem is solved by issuing a number of "pollution permits" which, in total, permit the chosen quantity of pollution to take place; and having the different polluters bid for the permits. The result is that the pollution is concentrated in the firms where it makes possible the greatest saving of other factors of production or the greatest increase in valuable output. That is why those firms are able to outbid the others for the permits.

Fortunately, it is very easy to determine the optimum quantity or degree of inflation. By far the most common view is that the optimum degree of inflation is no inflation. This calls for the stabilization of that price level index which is of importance to most people, namely the cost of living of the great majority, say, the 50 or 80 percent of the population in the middle with regard to income level (those between the lower and the upper quartile or between the highest and lowest decile). There are some other candidates for the choice of optimal degree of inflation, but the same procedure can equally be applied to any one of them.

With no expected change in the degree of monopoly (or its inverse, the degrees of competition) average wages have to rise at the same rate as productivity to keep average costs and the price level constant. If productivity is expected to increase at 3 percent per annum, average wages must be made to increase at 3 percent too. Inflation or deflation of prices will then be limited to the degree of error in estimating the average rate of increase of productivity--a degree of error which is quite innocuous in this context.

Wage-increase-permits

The government can achieve this price level stability by issuing wage-increase-permits equal to 3 percent of the annual wage bill, distributing them to the employers in proportion to their wage bill, and requiring every employer to hold a number of permits equal to the wage increase that he pays. The permits would have to be legally tradeable or hireable on a free market. Those employers who want to raise wages by more than 3 percent would have to buy or rent the corresponding additional permits. They would be able to get them only from employers who raise wages by less than 3 percent and are left with surplus permits. (Any employer who lowered wages would be entitled to correspondingly additional allowances of wage-increase-permits which he would sell.) The result would be that while wages could rise only 3 percent per annum overall, the freely operating market in the permits would enable the man on the spot to decide how much to increase particular money wages in accordance with the infinite complications of demand and supply on the different markets.[7]

With such a plan in operation the market price of the permits will depend on the degree of pressure for increased wages above the average 3 percent annum provided by the available number of permits. With the fixed supply of permits the price will rise just as high as may be required to overcome this pressure. If there is little pressure the price will be low. If there is no pressure at all they will have no value.[8]

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[7] The idea first came to me as a rumor that some such scheme had been proposed by Dr. Von Weizsacker of Bonn. I was immediately reminded of Kenneth Boulding's green stamp plan for effective but yet impersonal population growth regulation. But only when I got Seidman's illuminating suggesting of treating inflation as pollution did all the elements suddenly begin to fit together, like the excruciatingly easy last few pieces of a jigsaw puzzle.

[8] If the pressures should go the other way, i.e., if wages tended to rise by less than productivity, or even to decrease absolutely, the scheme would have to be worked in reverse. Deflation of wages would then be the pollution

It might seem that the permits could become frighteningly valuable, since a permit for a $100 wage increase above the norm would last indefinitely. The higher wage would be an increase only in the first year. The permits could constitute enormous subsidies to employers who raise wages by less than the norm. This looks like a perverse subsidy to industries with low marginal need for their products. But the subsidies would not be perverse because they do not induce increased production. They decrease the output of these less urgently needed products by decreasing the wages there, driving workers to where the more urgent demand induces higher wage increases in spite of the added cost of the required permits.

The year is, indeed, an arbitrary period for our purpose. It seems, however, to be a reasonable time for the stabilized average costs to have stabilized average prices and removed the inflationary pressure for wage increases greater than productivity. The continuation of the higher wage would then not be so valuable. If the higher wage would call for a less-than-norm wage increase in the future, the firm would get some spare permits it could sell. But these would not be very valuable either.

With cost-push inflation thus treated as a pollution, once the administration and the policing the wage-increase-permit market have been worked out (and there is no reason for supposing any insuperable difficulty), the problem properly returns to micro-economics.

Wage and Profits

The wage-increase-permit plan would, of course be unacceptable if it led to an increase in the ratio of markups over costs (which would increase profits relatively to wages). But there is little reason for expecting this to happen

to be combatted, and there would have to be permits for paying less than 103 percent of last year's wages. These permits too would have to be freely marketable. Such a scheme would have helped to prevent the falling prices which aggravated the great depression of the 1930's. However it is almost certain that those conditions will never be permitted to return.

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even though it might appear unfair to have an incomes policy which holds down wage increases without a similar mechanism for holding down profit increases. But the latter is unnecessary because the markup is a <u>ratio</u> which automatically keeps profits in line with wages. The actual degree of competition, with all its imperfections, has succeeeed in keeping the markup ratio, or the average degree of monopoly, remarkably constant. Any stepping up of the measures against monopoly and restraint of trade would have the effect of <u>diminishing</u> the profit share and increasing labor's share of the national product. But much more effective in increasing labor's share would be the intensification of competition when the cure of both inflation and depression makes business enterprise much less risky and a smaller profit per unit will be needed to make enterprise rewarding. The government will therefore be able to leave the problem of depressionary inflation to be solved automatically by the extended market mechanism--including the market in wage-increase-permits--and concentrate on the correction of other social inefficiencies.

Social Distribution Efficiency

Among the social inefficiencies calling for government action are not only the social inefficiencies of allocation of resources between different uses but also social inefficiencies of distribution of income and wealth between different persons. Extreme inequalities of distribution make equal access of all to the market, and even the most perfect efficiency of allocation, more of a mockery than an engine for overall social efficiency. Where the benefit from the alleviation of extreme poverty is greater than the damage from the same dollar reduction in the taxpayer's income, the difference is the measure of the gain in social efficiency of distribution.

Such improvements in the social efficiency of distribution point in the direction of equalization of income and wealth. This must be limited by the need for inequalities as incentives for producing what is to be available for distribution. But the reduction, or in richer countries the elimination, of real poverty can be achieved without prohibitive loss of output. Output may even be increased by the alleviation of ill-health and production-reducing resentments. Improvements in efficiency of distribution cannot however be reached by the internalizing of externalities. There is no way in which the beneficiary can compensate the loser. The internationalization of externalities, whether through more sophisticated market mechanisms or whether through government charges or subsidies on activities producing good or bad externalities, work only for efficiency of allocation.

The effects of increased allocative efficiency on the social efficiency of distribution are unpredictable. There have indeed been some philosophers, and even some economists, who have assumed, without any basis, that the distribution that results from allocative efficiency, even if not a socially efficient distribution is somehow "just"! Almost all economists have denounced this strange judgment, but that has not prevented economists in general from being unjustly charged, in leftist circles, with teaching it.

The institutions which increase social efficiency are the fruits of millennia of social engineering and the natural selection of the communities which were most successful in developing them. They range from the establishment of security of property, private and public, to the infinitely complex extensions and limitations of individual, group and national property rights to encourage industry, inventiveness and the accumulation of instruments of production and to measures to minimize non-functional inequalities of income and wealth. Extreme familiarity with these instruments often cause men to take them for granted, to attribute the benefits to the gratuitous benevolence of an "invisible hand" in contrast with current further development of the institutions as a different "visible hand" of public policy.

Micro-Macro

We have separated stagflation into its component parts: stagnation and inflation. The stagnation component (inadequate total spending at the current wage and price level to yield full employment) calls for macro-economic governmental measures for increasing total spending. The inflation component, which cannot be excess demand inflation, calls for micro-economic market adjustments or wages and prices, with the government only internalizing an externality by administering the wage-increase permits.

With the demarcation of the borders between macro-economics and micro-economics, in theory and in policy, a peace settlement becomes possible between Keynesian and Classical economics, between Fiscalism and Monetarism and between Functional Finance and "Sound Finance." The peace treaty calls for a restatement of the Functional Finance formulation of Keynesianism. The Keynesian objection to monetarism is only that it seems to be reading the world backwards in expecting a stable rate of increase in the money stock to succeed in inducing wages and prices to adjust automatically to the money--to behave in the way that would make that rate of increase in the money stock the appropriate one for full employment. But once the desired rate of increase in wages has been brought about by the wage-increase-permit market, and an adequate level of spending has been reached, prosperity with price stability can be preserved by and indeed requires, a regular growth of the money stock equal to the rate of increase in output, with minor adjustment for secular changes in liquidity preference. The monetarist formula for the rate of increase of the money stock then becomes as Keynesian as it is classical.

A Balanced Budget?

From this it follows that the national budget does not have to be concerned with the total level of demand in the economy. Of Functional Finance's three pairs of instruments, borrowing and lending, buying and selling and taxing and subsidizing, the first, borrowing and lending, can usefully be segregated and put in charge of the monetary authority--the Federal Reserve System's open market operations. These can regulate the size of the money stock and thereby maintain adequate but not excessive total spending. The government can then concentrate entirely on its use of the remaining two pairs of instruments, returning to its fundamental role of promoting social efficiency, internalizing externalities for allocative efficiency and alleviating poverty for distributive efficiency. Taxing and subsidizing are the means by which it increases both parts of social efficiency. Buying and selling are means for achieving the same objectives where direct government enterprise appears to be more efficient than subsidizing (bribing?) private enterprise to do the job.

The government must then consider that when it increases (or decreases) its spending this can disturb the monetary authority's task of regulating total spending. To avoid such disruption it must offset any change in its spending by bringing about an opposite change in spending in the rest of the economy so as to keep total spending where it should be. The obvious way is to increase taxes when it spends more and decrease taxes when it spends less.

This looks rather like the resuscitation of the traditional principle of balancing the government's budget. This principle was explicitly rejected by functional finance which considered the maintenance of the desirable total level of spending in the economy a primary responsibility of the government. It followed strictly that the government could not let itself be diverted from this objective by consideration of the equality or inequality of the government's spending to its tax revenues. But that is no longer the case where the stabilization of the price level by the wage-increase-permit mechanism permits the regulation of total spending to be delegated to the monetary authority. Nevertheseess the <u>principle</u> that the government should balance its budget, if not annually then over some other time period, is <u>not</u> restored.

In the first place, even if the government feels that it must not in the slightest complicate the task of the monetary authority it will not have to increase (or decrease) its tax collection by an amount just equal to any increase (or decrease) in its spending. When it increases its spending it will have to increase taxes by <u>more</u> than its increase in spending, taking account of how much of the increased taxes would come out of their saving and not out of their spending; and similarly for decreases.

In the second place the government does not really have to have to consider this at all. The monetary authority is capable of keeping <u>total</u>

spending at the proper level in any case, bringing about the necessary opposite movement in private spending.

In the third place it would rather seem desirable for the offsetting reduction (or increase) in spending to be met in part by taxpayers and in part by the borrowers of the money made available by the monetary authority. This would call for conscious collaboration between the Bureau of the Budget and the Monetary Authority in determining how much should be fiscal and how much should be monetary.

A Full Employment Deficit!

These three considerations, while rather upsetting to any principle of balancing the government budget, do not rule out the possibility of the budget being nevertheless balanced. But a growing economy needs a substantially increasing quantity of money and probably also of government bonds. The additional money and government bonds can be created only by government spending newly created money or incurring newly created government debt. This can come only from a continuing substantial deficit in the government budget.

The monetary authority, in taking over the "lending and borrowing" pair of functional finance instruments in its open market operations, can only increase the money in the economy by decreasing the quantity of bonds or increase the bonds by decreasing the money, keeping constant the sum of the two.

Part of the need for increased money and government bonds could be met by the expansion of bank money through bank credits. But this is only a reflection of the government's bountifulness in permitting the banks to run a deficit themselves (when reserve requirements are reduced) or to appropriate for themselves the major part of a government deficit (when it is financed by borrowing from the Federal Reserve System, by virtue of the fractional reserve money creation multiplier) and to enjoy privately the command which a deficit yields over a part of the national resources.

The Right-Side Up Economy

Only when price stability is being guaranteed by wage rigidity in a depression, and neither monetary policy nor classical wage and price flexibility can bring about enough total real spending for full employment, must government divert its spending and taxing and its buying and selling instruments from their proper task of increasing social efficiency and have them pinch hit for the impotent lending and borrowing instrument.

The fiscal measures are indeed very blunt instruments for this moonlighting, but that matters little in the "upside down" economy of severe unemployment. Labor and other idle resources are not really scarce from the social point of view (no matter how scarce they are for the victims of the depression) and this turns "the science of scarcity" topsy-turvey. In the upside-down economy <u>any</u> additional spending does much more good than harm. But the establishment of price stability by the wage-increase-permits, makes possible a monetary policy for full employment that can turn the economy right side up again; and Keynesians and Classicals will no longer appear upside-down to each other.

A More Practical Postscript

Although an additional 1 percent of unemployment is incomparably more damaging than an additional 1 percent of inflation, there is an important sense in which inflation is nevertheless the Number One problem. This is because we are not in a position to choose between the evils. As long as inflation continues, governments will continue to treat it as due to excess demand, and they will hold down the rate of spending in the economy. This medicine will not cure the inflation but it will continue to give us high unemployment and the "paradox" of stagflation. That is why we must cure the inflation first.

In this essay I have attempted to indicate the most logical and most efficient means for offsetting the excessive pressure for rising wages (and thus prices). But the wage-increase permit scheme is too rational, too simple and too obvious, and therefore too suspect, a device. It helps us to understand the issues, but there will have to be decades of debate before the practical problems of its application even begin to be seriously considered. The urgency of the problem therefore calls for an acceptable, if cruder, device that will fit in with our habitual procedures. The Weintraub-Wallich-Seidman TIP proposal is such a device. It would yield a large part of the benefits from a wage-increase-permit scheme. Limited initially to, say, the thousand largest corporations, its administration would cost no more than a few <u>million</u> dollars while the gain in national product would run in the <u>tens of billions</u> of dollars.

Any suggestion for an improvement does more harm than good if it unduly prolongs debate before action is taken; but I believe the following two modifications of TIP contain that modicum of rationality which would make the proposal <u>more</u> acceptable.

(1) I would consolidate Seidman's increasing tax rebate (for wages restrained below a norm) with Weintraub-Wallich's increasing tax penalty (for wages increased above a norm). The increasing tax rebate (like all "subsidies to combat pollution") consists of a lump sum grant plus a tax per unit of pollution

(here, unit of wage increase). Consolidation means giving each of the corporations included in the plan a lump sum grant (which may take the form of a tax reduction) and imposing a charge on its average wage increase whether this is above or below "the norm." This means of course that there is no norm for the firm's wage increase. The intention would still be to achieve the social norm of wages rising in proportion to productivity and to make the sum of the grants equal to the sum of the charges.

(2) I would base the grant (or tax relief), as well as the charge, not on the profit of the firm but (as in Seidman's addendum) on a previous wage bill (adjusted for changes in employment). The charge paid by the firm would then be proportional to its average wage rate increase times the base figure. This will prevent unjustified differences in the charge per unit of wage increase because of differences in the profitability of firms or because of differences in the wage share in a firms' total costs.

Such a modified TIP, unlike the wage-increase-permit scheme, would have no market indication of how high the charge would have to be to offset the excess pressure for wage increases. The charge, as well as the grants, would have to be set by trial and error, and there would be no room for possible fine adjustment of the number of permits for a gradual reduction of the rate of inflation, if that should be considered desirable.[9] With the high unemployment of our stagflation this cannot be very serious, but if it should be serious the device could be extended to apply to the largest 10,000 or 100,000 firms.

To many it will seem an advanaage of the modified TIP over the wage-increase-permit scheme that the government could set the charge for wage increases for, say, a year at a time. This would make it easier for firms and

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[9] As suggested in my Flation, Chapter 11 on "Disinflation".

labor unions to bargain about wage rates, having to worry only about what the charge will be next year.

However the differences between the benefits from the "ideal" wage-increase-permit scheme, the modified TIP and the original TIP, even without the Seidman supplement, are miniscule compared with the benefits from any one of them as compared with allowing the stagflation to continue. A suggested improvement that has the effect of delaying the application of some form of incomes policy would become a classic instance of the better as the enemy of the good.

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