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Today's Task For Economists

There is no reason inherent in the real resources available to us why we cannot move rapidly within the next two or three years to a state of genuine full employment.

Recently, I have been left aghast by the placid acceptance of many economists close to the seats of power to remain content with modest palliative measures. They appeared constrained, I assume, by a need to reduce the so-called budget deficit, if not immediately, then in some future state of affairs, usually to a state of "balance." Less actively articulated was a possibly more justified fear of rekindling inflation. What is urgently needed is to bring the economy rapidly to a point of genuine full employment and to keep it there. I define genuine full employment as a situation where there are at least as many job openings as there are persons seeking employment, probably calling for a rate of unemployment, as currently measured, of between 1 and 2 percent. Practically, the desirable situation ought be one in which any reasonably responsible person willing to accept available employment can find a job paying a living wage within 48 hours.

Full employment, as delineated above, would have salutary consequences for levels of production, would reduce budgetary drains for unemployment insurance benefits, welfare payments and the like, and would have a significant impact on levels of poverty, homelessness, drug addiction, and crime. It would also substantially ease tensions over such issues as defense cutbacks, race relations, free trade, and immigration, as well as over many labor-management issues such as featherbedding, demarcation,

seniority, and job tenure. Genuine full employment would allow qualified workers to move vertically out of low-skill jobs to jobs more suited to their potential.

Under present conditions, training programs, though micro-effective in moving the selected trainees to the head of the queue, are nevertheless largely macro-ineffective in reducing the size of the queue. With full employment, training programs would gain effectuality at increasing overall productivity. This vertical movement of potentially qualified labor out of the low-skill market would in turn tend to raise the wage level and esteem of socially necessary low-skill jobs, thereby integrating those performing them into the wider community.

Moreover, compared to the manifold benefits demonstrated above, the problems accruing from any debt that might have to be accumulated, in the process of obtaining full employment, would pale into relative insignificance. Inflation is a more serious matter that I will deal with in due course. But it is high time we gave human values a deserved priority instead of remaining mesmerized by figures on balance sheets. It's not "the economy, stupid," as one cartoonist had it, if by "the economy" one means the usual financial numbers associated with the Dow Jones, bond prices, or even the gross domestic product. Today's three most important problems are unemployment, employment, and jobs.

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The Keynesian optimism of the early 1950s

At the end of World War II, euphoria prevailed among at least some economists over the prospect of curbing the business cycle and maintaining a high level of economic activity through Keynesian fiscal policy. It was reasonable to think, under these circumstances, that the chief remaining job of the economist was to assure an as-near-as-possible approach to a Pareto-efficient allocation of a given aggregate of resources. The ensuing events, however, proved otherwise. The conventional wisdom of regarding budget deficits as improvident prodigality, and government debt as the legacy of a craven deferral of burden to the future, regained command.

The way savings and investment actually interact

The notion that capital markets work like a market for potatoes continues to lurk in the background. In a potato market, if the price happens to be higher than one equating demand and supply, the presence of unsold potatoes will cause the price to fall; inversely, the clamor of unsatisfied customers will cause the price to rise. But it doesn't work that way in the capital market. If interest rates initially equate intended capital-formation and intended savings, and I decide to save an additional \$8 by not having my hair cut, in the classic diagram moving the "supply" of savings to the right, nothing happens to lower the rate of interest to the new equilibrium point. There will be \$8 more in my bank account, but \$8 less in the barber's account. His income is reduced; he is partially unemployed; and nothing has occurred to make it any easier for anyone to obtain funds with which to create capital. Nor has anything been introduced making the prospects for capital formation more attractive. As Gertrude Stein remarked, "the money is always there, it's the pockets that keep changing."

If the barber reacts by curtailing his consumption, he or she further reduces national income and saving. I may succeed in my attempt to save, but only by reducing the saving of others by even more. Savings are an extremely perishable entity. Say's law ("supply creates its own demand") fails as soon as part of the income generated in the process of producing the supply is shunted off into savings thereby reducing

total demand, unless there is a coincident decision to restore total demand by greater production of capital goods.

On the other hand, if some genius invents a new product or process and obtains a credit or borrows the funds needed to finance the capital involved in its production, this added real wealth is, ipso facto, someone's saving. In place of Say's law, we have "capital formation creates its own saving." Indeed, since much of the income generated by the capitalformation process will be spent rather than saved, we will witness a multiplier effect. As a result, income will ultimately be increased sufficiently so that it will issue increased savings out of this increased income that will be equal to the increased investment. Either way, there is no automatic equilibrium at reasonably full employment. Rather, if savings at full employment exceeds investment, income tends to fall, so that if savings fall off more rapidly than investment, a low-employment long-run equilibrium is established, possibly only as an average around which cycles fluctuate.

The biases and limits of monetary intervention

To mitigate this unsatisfactory state of affairs, neoclassical economists introduce a deus ex machina into the classical model. It takes the form of a monetary authority charged with the task of adjusting interest rates and other aspects of the capital market in order to allow a balance between planned saving and planned investment to occur at a satisfactory level of employment. Unfortunately, monetary authorities seem to be afflicted with an inherent bias stemming from the close association of those responsible for monetary policy with financial interests, and their relative remoteness from the grim realities of unemployment. Fearful of disturbing the smooth functioning of financial markets, they make adjustments on the downside that are too little and too late while, as they regard inflation as a sacrilege against the monetary standard in terms of which they measure all good and evil, they are always prepared to slam on the brakes at the first sign of its rekindling.

Moreover, monetary authorities tend to confine their activities to the short-term end of the capital market, and appear relatively reluctant or unable to do very much directly about longer-term interest rates, these being the more important rates from the standpoint of influencing saving and capital formation. A perceived readiness to raise short-term rates promptly, should inflation begin to threaten, is not an atmosphere conducive to the financing of the creation of durable capital. Indeed, to the extent that interest rates are raised in an attempt to check inflation, sellers will regard the increased interest charges as a cost justifying an increase in prices, thereby giving inflation an additional expiring flip as a result of the attempt to control it through monetary policy.

Special measures to promote capital formation

Various supply-side measures to promote investment have been proposed, but the ones most actively promoted seem unusually weak compared to many that could be advanced on this ground. The shifting of investment involved in Enterprise Zone programs seems to result in a geographical redistribution of unemployment rather than an increase in total employment. Investment tax credits, so attractive from a distance, become an administrative nightmare as soon as one begins to inquire about the details of which investments are to be eligible, and when they are—whether at the time of conception, of commitment, of manufacture, of purchase, of installation, of payment, etc. We have no conclusive empirical evidence of their effectiveness at their historically modest levels.

Concessions to capital gains, if enacted with adjustments to regular income taxes on a revenueneutral basis, may actually depress economic activity. Additional savings out of the capital gains tax reduction are likely to be greater than the reduction in savings from the increase in other taxes, requiring an increase in savings recycling. This may well exceed the additional capital formation induced, especially as the inducement to capital formation is in terms of a tax reduction in a relatively remote future and subject to legislative vicissitudes. At best, special treatment of capital gains greatly increases the complexity of the tax law, and diverts investment flows from their most efficient use. There is nothing to indicate that the investments likely to yield returns in forms defined by the tax code as capital gains will have any superior social value; gains from land speculation, in particular, add nothing to the real availability of resources. Many of the legislatively prescribed inclusions in the capital gains category are essentially pork.

A far better measure would be the abolition of the corporation income tax, by far the most serious impediment to private capital formation of a kind requiring equity funding. Unlike the capital gains tax, the corporate income tax is a tax largely above or before the market, requiring a rate of return on investment sufficient to cover the corporation tax and leave an after-tax rate of return comparable to other investments. In contrast, the capital gains tax operates largely as a reduction in the return to the investor after or below the market, comparable to the reduction of net income to the taxpayer resulting from the personal income tax on other income. In addition, the corporation tax causes inefficient allocation of investment between equity-type and loantype investments, encouraging thin equity and resulting in bankruptcies and reorganizations. It lubricates takeovers and mergers of dubious intrinsic merit, and its existence greatly complicates the income tax law and regulations.

Nevertheless, this tax, in spite of its many economic efficiencies, has enormous political popularity because nearly everyone thinks its burden falls elsewhere. Indeed, economists have differed widely in their assignment of the incidence of the tax, owing to a failure to specify, or even to consider, the macroeconomic policy changes necessarily involved in a change in the tax. Unlike most other taxes, the corporation tax inflicts a double whammy on the economy; it both extracts income from the stream of purchasing power and reduces the recycling of saving through investment. If imposed on a revenue-neutral basis, it causes unemployment, while, if a budgetary adjustment is made to maintain employment constant, much of its burden can be thought of as falling on future wage earners who will have less capital with which to work. The immediate impact will be offset by individual income increments generated by the budget-recycling required to maintain a constant level of employment, with a higher level of current consumption to replace the reduction in capital formation.

Tax-exempt bonds

Another measure serving to slightly improve investment allocation would be the replacement of the interest exemption on state and local bonds by a taxable tax credit at a rate that would maintain the market value of the bonds. Low-bracket taxpayers would be little affected, while nearly all the loss of revenue to the Treasury from this tax credit would accrue as a subsidy to the issuers. Upper-bracket taxpayers would no longer have a greater incentive to invest in such bonds than in riskier investments more suitable to their status.

Taxing imputed income

A more important, but politically more difficult, measure would be to require the inclusion in taxable income of the rental value of owner-occupied residences. This would not only improve the equity and progressivity of the income tax but go a substantial way toward increasing the number of units available for rental and promoting the construction of additional affordable rental housing, thus abating the problem of homelessness. It would create a more nearly level playing field for alternative forms of ownership and tenancy. The proliferation of conversions of so many luxury apartments to coops and condos is not caused by a devotion to cooperative principles. Elimination of the tax discrimination would greatly ease tensions in the relations between landlords and tenants fighting over the distribution of the tax benefits accruing from conversion.

Shifting property taxes from improvements to land

Another measure with the potential to provide a powerful stimulus to investment in property improvements would be to replace part, or all, of the property tax by a tax on land value only. This proposal can be traced all the way back to Quesnay and the French physiocrats, and has been more recently associated with the name of Henry George. It would remove the very serious inhibitory impact of the property tax on improvements. Unfortunately, from the standpoint of a national employment policy, it is largely levied by local governments often constrained by constitutional provisions or state laws. Nevertheless, some means of bringing pressure to bear on these governments to make this change might be found. Some governmental entities in Pennsylvania are already doing this. When levied for municipal purposes, it might be appropriate to exempt from the tax a flat amount per square foot representing the value of surrounding agricultural land; the urban government can claim no credit for this. This would also mitigate discriminations at jurisdictional boundaries.

Such a shift in the basis for local taxation might not only encourage private investment in improvements, but also open the door to additional public investment without significant excess financial burden; it would enhance the rental value of the taxed land in many cases. In particular, increased land taxes might provide subsidies to enable local utility and other services to be priced efficiently at levels closer to short-run marginal social cost. To the extent that labor- and capital-finance are mobile, so that their returns are determined by a wider market, the gains in efficiency would be captured by land—the immobile factor—and land rents would rise by more than the tax increase.

Limitations of "supply-side" measures

Under current conditions, however, "supply-side" measures designed to operate by reducing the cost of capital are likely to be severely limited in their effects. As long as nearly all types of capital facilities are idle or underutilized, very little widening investment is likely to take place. At best, some deepening investment in new products or technologies may take place; or there may be corners of the economy where relatively rapid growth has kept capacity fully utilized. Even in such cases, investment in capital facilities may depend more on appraisals of an uncertain market for the product than on the cost of capital. Supply-side measures, like monetary stimuli, are aptly described as paying out on a rope, and are relatively ineffective when there is no demand-side pull at the other end.

Long-term excess of desired saving over private investment

There is, indeed, no principle of economics that assures that there will always be a feasible rate of interest, nor state of the capital markets that will equate desired savings with net private capital formation under conditions of steady full employment. Such a balance may have been possible during much of the industrial revolution. But current trends seem

to be making it extremely unlikely, for the foreseeable future, that such an equality can be achieved, even by the most vigorous possible application of supply-side measures.

One factor has been a spate of capital-saving innovations and practices. Fiber optics, when fully utilized, costs less per unit of service by orders of magnitude, leaving ductways planned for copper forever surplus. Electronic exchanges occupy a fraction of the space formerly required by equivalent electro-mechanical exchanges. Just-in-time practices reduce investment in inventory. Improved communications enable more freight to be carried on a single-track line with sidings than was formerly carried by a full two-track line. Trucking requires less capital per employee than rail transport. Assembling electronic gear with a soldering iron uses far less capital than the man in the pulpit of a rolling mill, and service industries generally seem to use less capital per employee than manufacturing, mining or transportation.

Moreover, before gross capital-formation can begin to recycle private savings, it must first recycle funds set aside in depreciation, amortization, depletion, and obsolescence charges. Rapid obsolescence due to accelerating technological progress makes capital formation relatively insensitive to changes in interest rates. Very low or negative interest-rates may stimulate investment in escalated prices for non-reproducible assets such as land, authentic masterworks, memorabilia, and other "collectibles," but even this is limited by the possibility that speculative bubbles may burst; and in any case, relatively little employment is generated thereby, except to the extent that the enhanced asset values cause owners to feel wealthier and spend more.

On the savings side, increased longevity and the high cost of old-age illness lead to increased savings through funded pensions and other provisions for retirement. For this purpose, the lower the rate of interest, the greater is the amount that must be put aside out of current earnings in order to provide a given level of retirement security. On the other hand, increased incomes from higher interest- and profitrates are more likely to lead to higher savings. More recently, the increased concentration of income among the very wealthy (who have a high propensity to save, not so much for eventual consumption but largely to accumulate chips with which to play finan-

cial games and exercise economic power) has further added to the savings-recycling problem. Some recycling may take place through investment abroad and will be reflected in a positive trade balance and increased production of goods for export. Yet, it is uncertain how far this can be carried in the face of political instability, the danger of creating repayment problems, and the resistance, by foreign governments that lack an effective full employment policy of their own, to our exporting our unemployment to them in this way.

On balance, it is likely to prove impossible, for the foreseeable future, to maintain a steady state of genuinely full employment without a substantial amount of government recycling of savings, a chronic budget deficit, and a long-term increasing trend in the national debt, however distasteful this may be to those ideologically addicted to a balanced budget. It may even prove necessary for the debt to grow at a rate faster than the growth of GNP, though this ratio would presumably remain below some upper limit. The burden of servicing this debt might be kept within bounds by reducing real interest rates, close to zero if need be, though this might imply a higher level of private investment than would be chosen on its own merits. Some mitigation of the need for recycling savings might be obtained through increasing the progressivity of the tax structure, thus reducing the average propensity to save. Even contemplating such prospects calls for a significant expansion in our range of habitual thought.

Rethinking deficits and debt

Gaining acceptance for the idea that government recycling of savings on a substantial scale will have to be a permanent feature of any full employment economy is not going to be easy. We have the spectacle of the House voting by a substantial majority in favor of a constitutional amendment to require a balanced budget, fortunately falling short of the required two-thirds. This was done in spite of the fact that the nominal budget as currently computed is not a valid measure of any significant economic quantity. The nominal deficit would be reduced by selling the Pentagon to a life insurance company subject to a long-term lease-back and repurchase option; this at least would do no harm. On the other hand, under the pretext of reducing the transfer requirements embod-

ied in the national debt, the sale of our natural resources to private exploiters actually decreases the real heritage handed down to the future.

Savings recycling and the deficit

Government savings recycling is indeed a concept associated with the deficit, but is not identical with it. Direct government recycling can be defined as the excess of those government payments that are considered by their recipients to be income, over government receipts that constitute reductions in disposable income. Thus, whether measured by the current capriciously-defined nominal deficit, or by a more rational definition involving accounting for government assets, not all deficit financing results in recycling of savings. The sale of the Pentagon, or the purchase of an office building currently being rented by the government and financed by borrowing, would not involve any change in the level of recycling. Indeed, recycling is diminished if the purchase of a previously rented building is financed by taxes. And there is no overall increase in net recycling if government investment in a power plant, for example, in a genuine "crowding out," substitutes for investment that would otherwise have been made by private enterprise.

On the whole, however, recycling tends to vary in rough correlation with the nominal deficit, and the strength of the notion in the minds of the public and their representatives that deficits are bad and that the budget should be balanced may make it difficult to achieve an adequate level of recycling.

Recycling savings through public capital formation

We can derive some help in gaining acceptance for government recycling from restating the budget in terms of distinguishing between transactions on current account and capital account. If AT&T, General Motors, and households had been constrained to operate under the restrictions of the proposed balanced budget amendment, we would now have far fewer telephones, automobiles, and houses. By analogy, it would be proper, even on classical principles, for a government to borrow for capital purposes—borrowing for the capital account being justified by comparisons with corresponding private practices

and by the thought that future generations being burdened with the service of the debt would also reap benefits from the real capital passed on to them. While this may constrain choice away from what rational voters would have chosen as the optimal level of government capital formation, there might be enough scope for government capital investment to provide sufficient recycling to bring about full employment, particularly if investment in education, research, space exploration, and the like are considered eligible for treatment as capital investment, in whole or in part. Some of these projects, even if they would not stand scrutiny aside from their function in justifying income recycling, may nevertheless have the same kind of justification as the building of the Egyptian pyramids had for Keynes. On general welfare grounds, one might well prefer recycling in terms of borrowing to finance health care to borrowing to finance space stations. But, if borrowing for heath care is ruled out as creating an ideologicallysinful current account deficit, space stations it will have to be.

Government recycling to enable individualistic provision for retirement

Another approach that might help in securing acceptance for adequate long-term government recycling and the associated so-called "deficits" would be to regard it as an enabling provision for retirement on an individualistic basis. In pre-capitalist economies, the needs of the elderly were generally taken care of somewhat haphazardly by the younger members of more-or-less extended family groups. Inevitably, life's hazards would cause some to be inadequately tended and others saddled with an unduly heavy burden. Where land was either freely available or held in common, opportunities for individuals to save for their own future were limited by the absence of scarce durable capital goods.

Government recycling of savings, by issuing bonds to be purchased by individuals, directly or through intermediaries, could enable provision for old-age to be made on an individualistic basis. The proceeds of this government borrowing might be used for current public services, or even for the payment of a special dividend, and eventually for the redemption of previously issued bonds. Individuals would then have greater freedom of choice, both as

to the size of families and the way in which they divide their consumption between middle- and oldage.

The industrial revolution, by creating great opportunities for private capital investment, made it possible to shift, to a considerable extent, in the direction of individualistic provision for old-age without having to rely on familial loyalty or requiring recourse to government recycling. In recent decades, we have seen a shift to less capital-intensive forms of production, and a lengthening of the duration of retirement coupled with increases in the cost of caring for infirmities characteristic of old-age. Now, we are once again faced with a chronic need for government recycling. The government "deficit" is, therefore, not a "burden on the future" but a widening of choices not otherwise available, and, where opportunities for investment in private industry are inadequate to serve the total need, the public debt is a means whereby provision can be made for one's old-age on an individualistic basis.

The need for inflation control

While adequate government recycling may be a necessary condition for genuine full employment, it is not sufficient. The stagflation that began to be experienced in the 1960s demonstrated that vigorous application of Keynesian stimuli could eventuate in the resulting increased purchasing power being dissipated in excessively rising prices rather than in expanded production. The simple Keynesian approach thus tended to lose much of what little support it had achieved. It has become necessary to develop methods of dealing with this phenomenon that have not been effectively addressed by the earlier models.

The Phillips Curve and the NIARU

For the analysis of this new phenomenon, a new relationship, the Phillips curve, relating the evolution of inflation to the level of unemployment was added to the economists tools of analysis, with its "Non-inflation-accelerating rate of unemployment," or NIARU. This NIARU is, of course, not a fixed datum, but varies over time and place according to the sociopolitical ambience, the mechanics of the labor market, and the vigor of competition. Over time, it may

have been rising as a result of the increased sophistication and differentiation of products, real and factitious, giving sellers—the ones most knowledgeable about the characteristics of their product and its market—considerable leeway in raising their prices without unacceptable loss of sales. This leeway has been enhanced by high design and development costs, and by the increased cost of the advertising required to break into a market. Patents, copyrights, trademarks, quotas, and other governmentally-generated barriers to entry have played an increasing part in weakening market competition. This tendency for a wage-price spiral to emerge is a process ultimately held in check only by the presence of underutilized resources, including mainly what Marxists used to call "the reserve army of the unemployed." Currently in the United States, the NIARU appears to be approximately 4 to 6 percent.

Callous tolerance of unemployment

In one of the most vicious euphemisms ever coined, this NIARU has even been termed the "natural" rate of unemployment in some quarters. But while 5 percent unemployment might be barely tolerable if it meant that everyone would be taking an additional two weeks vacation every year without pay, it is totally unacceptable as a social goal when it means unemployment rates of 10 percent, 20 percent, or even 40 percent among disadvantaged groups, this phenomenon being accompanied by increases in poverty, homelessness, poor health, drug addiction and crime. Yet the hard political fact is that at such a NIARU, the great majority of the voting population, including most of the politically active upper- and middle-classes, will have relatively little personal experience of severe unemployment, while nearly everyone will have some direct experience of inflation. Many seem to feel that if only prices would stop rising, their incomes would go further, but they give little thought to the effect on their earnings. Even those with large mortgages or other debts, who would actually gain from inflation, tend to concur in the notion that they suffered from it. It is thus extremely difficult to get political support for anti-unemployment measures that are perceived as threatening to raise the inflation rate, at least until unemployment reaches 7 percent or more—at which point unemployment becomes a more widespread threat.

The advantages of predictable low-rate inflation

Actually, it is the uncertainty concerning the rate of inflation, and not its level, that does the damage. We can adapt to an assured, moderate rate of inflation by adjusting nominal rates of interest and the terms of long-term contracts involving money payments. The "menu cost" of changing price tags and catalog quotations is probably less important than the mental effort required of consumers to identify the appropriate current price for infrequently purchased items, such as furniture or clothing. An inflation rate assured to stay between 5 and 6 percent, say, might even have advantages. Monetary policy would be more powerful in stemming a downturn because very low, and even negative, real rates of interest would become feasible as a stimulus to investment. It might, in principle, be easier to keep inflation within a 1 percent range between 5 and 6 percent, than to keep it within a 2 percent range between minus 1 percent and plus 1 percent, given the smaller real value of non-interest-bearing moneys in circulation and the greater scope for monetary policy, even allowing for the superior political focusing-power of a target of no inflation at all as compared to one of 5.5 percent.

In addition, the base of the income tax ought to be broadened, making it possible to have a more progressive tax that is more productive of revenue with lower marginal rates, and that has less of a distortionary effect. A tax based on nominal accrued income would, in effect, be a tax on a base consisting of real income plus a percentage of net worth. While this is not what is meant by an ideologically-pure income tax, in terms of its practical effects, it can be deemed a superior tax. Indexing of capital gains, especially, not only suffers from the disadvantages of a general indexing of capital income, but involves an administrative nightmare of defining the relevant dates in complicated transactions, and provides a field day for tax techies for finding various ways around the regulations to arbitrage against the revenue by offsetting indexed gains with non-indexed deductions.

Inflation versus unemployment

It is the possibility of substantial changes in the rate

of inflation, either up or down, that does the damage. Such changes involve a disappointment of expectations and a redistribution of wealth and income derived from a given national product that is capricious and often inequitable; but it does not, of itself, substantially reduce the amount to be distributed. Unemployment, on the other hand, directly and substantially reduces the total product to be distributed. Unanticipated changes in the rate of inflation, up or down, may be considered to be a form of legitimized embezzlement, or perhaps involuntary participation in a lottery, whereas unemployment is vandalism.

The need for direct inflation control

As employment gets to the NIARU level, and inflation threatens to accelerate, and long before the economy reaches a really satisfactory level of full employment, the Fed is likely to try to restrain credit expansion and raise interest rates, while demands for a more stringent budget-balancing and cut-back of "government waste" are likely to be heard in the halls of Congress. To get anywhere near a satisfactory level of unemployment, some method of dealing with inflation will have to be devised. Unfortunately, we are short of tools.

In effect, the economy can be thought of as having three main macroeconomic parameters that we would like to control: the level of employment of human and other resources, the price level, and the division of the resulting total product between provision for current consumption and investment in growth and the future. We possess only two major policy tools, monetary and fiscal policy for that effort. In an era when inflation was not a threat, one could think of these two tools as controlling the level of employment and the rate of growth, with low interest rates combined with a deficit or surplus sufficient to maintain full employment leading to high investment and growth. But with a need to control inflation as well, relying on only two dimensions of control is like trying to fly an airplane without the ailerons that control the lateral tilt of the plane, this being the third dimension of control that was the key to the success of the Wright brothers. A new tool is urgently needed.

Market-based inflation control plans

Over the past three decades, many proposals for direct control of inflation have been made, notably

by Arthur Okun, Eli Wallach, and others, but none has achieved general acceptance. A few years ago, David Colander came to visit me and reported on a proposal by Abba Lerner for a market in rights to raise prices. Those wishing to raise their prices would be required to purchase the right from those prepared to lower their prices, thus assuring a constant overall price level. While this neatly circumvents the problem of adjusting the strength of incentive to changing inflationary pressures, the problem of how to measure price changes in the face of quality changes, new products, and variations in the terms of sale such as delivery, reliability, service, credit terms, tie-in sales, and the like, remains.

The question of how to deal with cases where prices paid to suppliers have risen proved more suggestive. A somewhat similar problem arises with gross receipts taxes, which discriminate in favor of vertically-integrated operations and against situations where the product passes through several hands on the way to the market. In Europe, this problem has been solved by shifting from gross receipts taxes and sales taxes to value-added taxes. Does this not immediately suggest that, instead of a market in rights to raise prices, we have a market in rights to value added?

Control with marketable Gross Markup Warrants

For semantic reasons I have chosen to speak in terms of "gross markups" rather than value added. It is more suggestive of something to be restrained rather than promoted. In principle, gross markups are simply the excess of sales revenue over amounts paid for non-prime inputs. In operation, warrants for gross markups for a prospective accounting period would be issued to each firm on the basis of the gross markups for a corresponding preceding period, plus or minus adjustments for changes in prime inputs such as labor and invested capital. The total face value of the warrants would be sufficient to correspond to the value at a desired overall average price level of the output expected to be produced by the inputs against which the warrants were issued. The trend of the overall price level would thereby be under firm control within very narrow limits.

Markup warrants would be freely tradable for cash in a competitive market, and if, at the end of the accounting period, a firm is found to have retained or acquired fewer warrants then the actual amount of its gross markups for the period, a penalty tax would be assessed. This tax would serve merely as an enforcement device rather than as a substantial source of revenue. It could be set at a level fairly certain to be higher than the market price of the warrants.

Adjustment of the warrant issue for changes in investment could be made simply on the basis of a uniform percentage of such change. Adjustment for changes in employment is somewhat more difficult. A flat amount per employee or man-hour takes too little account of variations in qualifications, and to allow adjustments equal to payrolls would run a danger of permitting inflationary wage increases. Some formula such as a percentage of payrolls plus a flat amount per employee might be satisfactory, and involve a certain bias in favor of the employment of low-skill labor. This may be considered desirable in view of the fact that that is where the unemployment problem is most serious.

Administration would seem to pose no insurmountable problems. Determination of gross markups is essentially no different than the assessment of a value-added tax, presently in widespread use in Europe. Adjustment for investment can be made on the basis of accounts already needed for income tax purposes, while adjustments for employment can be related to the Social Security records. Some special methods may have to be developed for dealing with the self-employed and very small firms, and possibly, as is sometimes done with the valueadded tax, some classes of firms could be excluded from the scheme. Inflation control would probably be adequate even if significant parts of the informal and other sectors were excluded from the scheme; distortions would not be a serious problem since no substantial net revenue is being extracted.

Prospects for rapidly reaching genuine full employment

With such an instrument in place, how can we plan to get from where we are to full employment? Recently, unemployment has been reported at about 7.5 percent, and full employment can be reckoned at about 1.5 percent, giving a slack to be made up of 6 percent. Using Okun's ratio of percent change in GNP to percent change in reported unemployment of 2.5, we

have a slack in GDP of 15 percent to be made up. If this slack can be taken up within two years, there will be 7.5 percent increase per year; if we add 2.5 percent for growth in the labor force and in productivity to this, we can achieve a 10 percent per year growth in GNP over two years. After that, we'll hit the ceiling, and growth will be limited to the labor force and productivity factors, possibly between 2 and 4 percent, thereafter.

Is public finance up to the job of reaching the goals thus defined, given the limits of our real resources? Possibly, but it will require breaking new ground. One would have to begin with increasing government recycling as rapidly as possible between 6 percent and 9 percent of GNP-in order to produce the 10 percent growth rate. How rapidly this could be done would, of course, depend on the political and legislative ambience. Some claim the fastest and easiest way to do this is by tax cuts. Unfortunately, if tax cuts are temporary, they tend to be viewed as windfalls to be saved rather than spent, and only part of the tax cuts will be effectively recycled. If not announced as temporary, they tend to create a resistance to later tax increases called for by full-employment conditions and large debt-service requirements. This is especially threatening in the context of recent political campaigning on the basis of promises of no new taxes. Perhaps the best tax cut would be a cut in the payroll taxes, say by 70 percent of taxes on the first \$10,000 per year of earnings, and 40 percent of the tax on the next \$5,000, thus promising the maximum proportion of recycling. Can this be done in the face of outcries, certain to be heard, that it would jeopardize the financial soundness of the Social Security System? Actually, of course, this ultimately depends on the willingness of future Congresses to make the financial arrangements needed to provide the promised benefits, whether through payroll taxes or otherwise.

On the other hand, outlays on actual programs are somewhat harder to start and stop rapidly. There is also the need not to get too far ahead of the effective operation of whatever anti-inflation program is put in place—whether the gross markup warrants program proposed above or some other—lest anticipatory speculation and inflation get out of hand. The exact program for the start-up period will require careful study.

What happens after the first three or six months will

depend to a large extent on what Keynes called the "animal spirits" of the financial community. At one extreme, there could be such horror and alarm at the violation of the fallacious conventional wisdom concerning the sinfulness of deficits as to produce a wide-spread hibernation and flight to foreign shores, thereby resulting in a reduction in private recycling of savings. If this should occur, it would have to be dealt with by correspondingly enlarging the amount of government recycling, rather than pandering to this timidity by cutting back on the recycling program, thus prolonging the depression and validating the fears that led to the flight.

More likely, once the financial community has become convinced of the seriousness of the administration's purpose to bring about full employment, and once it is anticipated that demand will shortly use up the spare capacity of existing productive facilities, private capital formation may pick up to the point of absorbing and recycling individual savings sufficiently so that less government recycling, or even none at all, may temporarily be necessary. At the same time, government revenues from increased GNP will increase, and outlays for unemployment insurance and welfare will decrease. And we shall be able to shut down those governmental programs that compete for real resources with private capital formation and avoid a real "crowding-out" (as contrasted with the mythical financial crowding-out alleged to occur as a result of government borrowing associated with a tax cut). A brief period of budget balance or even of surplus may be called for.

As the economy hits the ceiling of full employment, however, still another transition becomes necessary. For a while, capital-formation may continue its momentum to recycle savings, but may produce excess capacity that either cannot find labor with which to operate or cannot find markets in which to sell its product. Within a short time after hitting the full employment ceiling, capital-formation will inevitably drop from that appropriate to a 10 percent growth rate to that called for by a far slower growth rate. At this point, attempted savings will almost certainly exceed by a substantial margin what can be absorbed by private capital-formation, even at very low rates of interest. Other ways to recycle the excess will again become necessary, one of which will be renewed government recycling.

The need for flexibility

It will not be possible to reliably predict the optimum

time-path of the necessary government recycling. Accordingly, it will be desirable to retain the ability to respond promptly to developments as they occur. Some flexibility might be exercised by adjusting the coefficients used for the adjustment of the markup warrant issue. Monetary authorities can help by adjusting interest rates, extending as far into the long-end of the market as is feasible.

The socially optimal term structure of government debt

At this point, the Treasury could help by relinquishing its objective of arranging the term structure of its debt to minimize its interest costs, by giving up its monopolistic exploitation of its more dominant share of short-term markets. There is no difference between the supply-side social cost of providing capital funds on a short- versus a long-term basis (as distinguished from the demand side differentials in risks associated with real investments of varying durability). Overall efficiency would be best served by the Treasury arranging its financing to equate the various long-term rates with the effective average of the expected short-term rates over the same periods, even in the face of an increase in its total interest charges. This would serve to make it easier for monetary authorities to influence medium- to long-term interest rates. It would also help to quiet those who hold that government borrowing "crowds out" borrowing to finance private capital-formation. Such a shift is indeed being advocated to reduce the current deficit by taking advantage of the unusually large spread, but this would be doing the right thing for the wrong reason.

Focus on unemployment reduction, not bookkeeping

In any case, we need to focus on achieving the amount of recycling required to produce the speediest possible approach to full employment, and to get out from under our obsessive concern over deficit reduction and total elimination of inflation. If we can move rapidly to full employment, and stay there, any consequences in terms of higher national debt will be a minor, trivial problem compared with those that would be involved with continued unemployment. A \$10 trillion debt in a context of full employment,

low demands for redistributive payments, and a productive revenue system, will be easier to handle than a \$5 trillion debt in an economy wallowing in the doldrums.

At the very least, we must not be lulled into being satisfied with less vigorous measures by the recent improvements in the economic outlook. Much of this upturn has been created by the increasing likelihood of a change in administration and by expectations that the new administration would take effective steps to stimulate the economy. It would be highly perverse for the new administration to do less because of an upturn produced by expectations that it would do more.

The task before us

This, then, is the challenge I lay before the economics community. There is no reason inherent in the real resources available to us why we cannot move rapidly within the next two or three years to a state of genuinely full employment, and then continue indefinitely at that level, with the concomitant reduction in the ills of poverty, homelessness, sickness, and crime, together with a reduction in the resistance to reductions in military expenditure to more rational levels, to liberalization of trade and immigration policy, and to conservation and environmental protection programs. Dealing with whatever debt emerges in the process will be a relatively trivial problem.

Indeed, there is a free lunch out there, in the form of underutilized resources of labor and capital. The various forms of belt-tightening urged on us in the name of fiscal rectitude, mostly by those who are in little danger, themselves, of sharing in the hardship, are not only cruel but unnecessary. We simply cannot continue on as we have been doing without falling apart as a community and losing what is left of our status of world leadership. If you don't think that something like this can be made to work, then it is up to us to get together to find something that will. Otherwise, if we continue to tie our hands with financial shibboleths and models that tacitly assume a fixed total of resource utilization, we are no better than the feckless castaway whose contribution to the solution of the problem of dealing with cases of canned goods was "let's just assume we have a can-opener."