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TAX-BASED INCOMES POLICIES:

A BETTER MOUSETRAP?

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by

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(Revised)

There is widespread agreement that inflation is Economic Enemy Number One. It has become the top priority because of a decade of benign neglect --a period in which inflation was outranked by other priorities (Vietnam, Watergate, unemployment) or in which efforts to combat inflation were short-lived (as in the Nixon wage-price controls) or a joke (Ford's "Whip Inflation Now").

This decade was also one in which the unexpected shocks and underlying forces were predominantly inflationary. The rise of OPEC, the depreciation of the dollar, increasingly costly regulation, and a dramatic decline in productivity combined to produce a series of upward ratchets in the underlying inflation rate (the increase in the nonfarm business deflator) from 1.0% in 1961-64, to 2.9% from 1965-69, to 6.1% for 1970-71, to 8% in 1978. The only good news was that it could have been worse.

This combination of events has led to the consensus that reducing inflation should be the number one priority. Households thinking that inflation is more serious than unemployment outnumber those with the opposite persuasion by almost 3 to 1. With an economy essentially at full employment, no relief from inflation in sight, and a clear signal from voters that they want action, now is a propitious time to wage war on inflation.

Although virtual unanimity on the existence of an inflationary disease exists, there is no agreement on a remedy. Many conservatives call for fiscal and/or monetary austerity; the people seem to lean toward balanced budgets; J. K. Galbraith has trotted out the perennial nonstarter of wage and price controls; while Milton Friedman argues that reduced monetary growth will suffice; and many businessmen claim that reduction of

regulation will go far.

Partially as a result of the Babel of theories and remedies there is in fact no political consensus about how to proceed. And there is no national inflation program.

The problem of inflation is akin to a crowd watching a football game. There are two stable equilibria at a game--everyone standing up and everyone sitting down. These might correspond to a high-inflation and low-inflation equilibrium.

The problem arises because an individual or group gets excited or "overheated" and stands up to see the field better. Others follow suit until everyone is standing. On average, the view is not better standing up--some see better, some worse. Generally everyone is a little uncomfortable, yet there is no easy way to sit them down. No single person has the incentive to sit down first because he cannot see over those standing in front of him. Yet if everyone were to sit at once, the entire crowd might be more comfortable.

How to persuade people to sit down? The analogies with inflation are imperfect but entertaining:

1. "Old time religion": the proven way to get the crowd off its feet is to slow down the football game and "cool" the crowd.
2. "Jawboning": Announce that standing up is bad and would everyone please sit down.
3. "Controls": Order everyone to sit down or be ejected from the stadium.

When these fail, one might be tempted to try:

4. "TBCC--tax-based crowd controls": Reward everyone with a tuition-tax credit if they sit down.

A SIMPLE INFLATION MODEL

Before discussing alternative approaches to inflation, I must admit my personal prejudices about the inflation process. They can be summarized in three behavioral equations. First, it is assumed that wages follow an expectational (or natural-rate style) Phillips curve:

$$(1) \quad w_t = w_{t-1} + f(u^*/u_t) + k(y_{t-1}^* - y_{t-1})$$

where

p = rate of price inflation,

w = rate of change of wages,

u = unemployment rate,

u^* = natural (or non-accelerating inflation) employment rate,

$y = w - p$ = growth of real wages,

y^* = expected growth in real wages.

Equation (1) states that wage inflation follows an inertial process unless shocked by excess supply or demand for labor or by disappointments in real wage growth (or in alternative versions by exogenous inflation). Each of the three terms in equation (1) can become a bottomless pit of controversy, and no attempt to justify each will be given here.

Prices are assumed to follow a cost-determined structure:

$$(2) \quad p_t = w_t + c_t - a_t$$

where

c = rate of increase in the share of non-labor costs (e.g., indirect taxes, imported materials, and perhaps the markup of price over costs),

a = rate of growth of labor productivity.

Equation (2) states that inflation is determined by the rise in costs per unit output. It is clearly a view of price formation consistent with the predominance of "administered" rather than "auction" markets. It could be made more realistic by specifically accounting for non-labor costs and by adding an effect of demand on the markup of price over costs, but little is gained by these further complications.

Finally, we assume that expected real wage growth is adaptively determined as a function of past growth in real wages:

$$(3) \quad y_t^* = g(y_{t-1}, \dots)$$

For simplicity, assume this period's expected real wage growth simply equals last period's actual growth:

$$(3') \quad y_t^* = y_{t-1}$$

To solve this system for its wage and price behavior, we take u_t , c_t , and a_t as determined outside the wage-price system. The unemployment rate is determined by monetary and fiscal policy in light of competing national goals. Productivity growth and the share of nonlabor costs are determined partly exogenously by underlying trends, or exchange market developments, partly by policies regarding taxation and microeconomic policies.

Solving our simple system of equations in (1), (2), and (3') we have:

$$(4) \quad \Delta w_t = f(u^*/u_t) + k(\Delta c_{t-1} - \Delta a_{t-1})$$

$$(5) \quad \Delta p_t = f(u^*/u_t) + \Delta c_t + k\Delta c_{t-1} - \Delta a_t - k\Delta a_{t-1}$$

Thus in this simple view wages and prices accelerate either when there are conditions of excess demand or when cost/productivity conditions deteriorate. More precisely, first, note that there is a permanent rise in inflation either when there is a period of excess demand (the unemployment rate falls below the natural rate) or when there is a permanent change in the growth rate of productivity or cost. Second, there is a temporary burst of inflation when a temporary drop in productivity growth or increase in cost growth occurs--but after the temporary change is reversed and all lags play out, the inflation rate returns to the original level. Third, the effect of cost or productivity changes on the level of prices is greater than that on wages by the amount of the change, while demand affects the two variables by equal percentages.

Finally, note that the wage-price system is explosive (in that inflation rises without limit) if unemployment is held below the natural rate, but that it is not explosive with respect to cost of productivity stocks even if workers attempt to make up their entire real income (i.e., if $k = 1$). This latter feature appears because of the adaptive nature of the income expectation.

ALTERNATIVE STRATEGIES TO REDUCE INFLATION

We noted above that there are an enormous number of competing theories concerning the remedy for reducing inflation. A brief review of the troops, using the simplified model outlined above, may help sort out confusion. In what follows I will discuss three sets of alternatives: genuine strategies, false strategies, and new strategies.

Genuine Strategies

There are three strategies for reducing inflation that have been tried and examined in a wide variety of circumstances: macroeconomic policy, microeconomic policies, and incomes policies.

1. The level of overall economic slack in labor and product market is the central factor determining inflationary pressures year after year. It is well documented that by holding a high level of slack ("old time religion") inflation can be reduced, and the Administration's current fiscal policy is restrained for exactly this reason. In the simplified model above, slack occurs when the unemployment rate exceeds a natural rate, leading to deceleration of wages which is passed into acceleration of prices.

The costs of using economic slack to reduce inflation is very high-- 2.5 million person-years of employment and \$100 billion of output is lost for each point that inflation is reduced. The high cost of reducing inflation through recession combined with the political sensitivity to recessions has, up to now, meant that conversions to the old time religion have been unacceptable or followed by atheistic splurges.

2. A second real strategy is the use of supply side (or microeconomic) policies to reduce costs and thereby inflation. There are two general ways in which supply side policies can affect inflation. Increases in cost-raising taxes (such as sales or social security taxes) increase prices and enter into the wage-price spiral. Policies which raise private costs or lower productivity (such as deregulating oil prices, limiting emissions into air or water, or imposing trade restrictions) raise unit costs and have a similar effect. In the simple model discussed above, supply side policies reduce nonlabor costs (c) or increase productivity

growth (a) . Note, however, that most measures (trade restrictions or liberalization, oil price decontrol, regulation) represent one-time changes in productivity or costs and therefore have only a one-time effect on inflation. A policy which were to effect a permanent slowdown in productivity growth will lead to a permanent acceleration in inflation.

3. A final genuine alternative ~~is~~ the use of incomes policies or price and wage controls. These policies customarily use a series of guidelines or percentage increases for wages, and a markup standard for prices. At one extreme, where pure jawboning ("whip inflation now") penalties exist for breaching the guidelines, it is hard to see why any parties would change their behavior. At the other extreme, controls, the price-wage system ~~degenerates~~ largely into a political process. The Carter guidelines fall somewhere in between. They were designed to have significant penalties for non-compliance, but were very limited in their scope, full of flexibility, and had modest objectives.

It has not proven easy to model incomes policies, but a little illumination can be obtained in the simple model above. The wage half of incomes policies are attempts to break the inertial process by slowing down wages. As can be seen, in an inertial system such as the one outlined above, if wages are successfully slowed this will permanently slow the overall rate of wage and price inflation. Thus if 1 percent is subtracted from the right hand side of equation (1), this will translate into 1 percent lower w and p for all time thereafter. Under voluntary wage and price guidelines, it is difficult to see any microeconomic mechanisms which would lead to a slowdown in wage growth. As in our stadium crowd, since no one wants to sit down first, no one sits down at all.

It should be noted that because prices are not inertial the effect

of "prices policy" is much less powerful. In effect prices policy reduce or restrain the markup of prices over costs. Thus in our little model, prices policy lowers the non-labor share, reducing c_t . The problem is that this compression of the margins cannot go on for long--indeed, it seems likely that the cost level will bounce back. Over the entire price-policy period, then, c_t will rise slower at the beginning and faster at the end, for no net gain. As can be easily seen from equations (4) and (5), there can therefore be no lasting effect of prices policy on inflation unless it helps wages policy.

How well have these programs worked? Evidence from the United States is that there are at best very modest effects of incomes policies. The verdict on the Kennedy-Johnson guideposts is that they hold down inflation by 0.1 percent or so. The Nixon statutory wage and price controls over the 1971-73 period appear to have had no net effect. Evidence from abroad is rather mixed, with a few successes and many failures.

Given the dismal record of incomes policies, it might seem to be a puzzle why governments come back to them time and again. For all her admiration of the free markets, Mrs. Thatcher has not vowed to remove the labor government's restraints in Britain. The reason we seem to come back to the rather dry well so often is simple: incomes policies are (or appear) relatively inexpensive and, given the enormous costs of the alternatives, they are probably worth trying even if they have only a small chance of success. Even if Fred Kahn is only worth one-half point on the inflation rate, compared to macroeconomic policies he is worth \$50 billion.

False Strategies

The three strategies discussed above are genuine in the sense that there are sound theoretical and empirical reasons to believe they work. In addition, there are many "snake oil" remedies which cannot be certified as efficacious and ought to be taken off the shelf of anti-inflation medicines.

1. The first of these is a mechanical monetary rule or simplistic monetary linkages. Both theory and history indicate that a given monetary policy is neither necessary nor sufficient for reducing inflation. Money enters along with fiscal policy, oil prices, animal spirits and other factors into the determination of aggregation demand. Except for some second-order effects, it is only through the levels of aggregate demand (or unemployment rate, u , in our simple model above) that money affects inflation. Other things equal, tighter money will improve inflation. But other things unequal, as they tend to be with pesky frequency, money has no intrinsic magical powers over prices.

If the tomes of history and journal articles are not sufficiently convincing, the most recent behavior of money should help dispell the myth about money's supremacy. Over the last six months, M_1 decelerated dramatically from about 8% over the first nine months of 1978 to -3% over the next six months. There has been no deceleration in inflation as of the latest data.

2. A second set of persuasive false remedies concern the role of fiscal policy. There is currently a public movement unique since Prohibition for a return to fiscal austerity in the form of balanced Federal budgets. At least part of this groundswell is in reaction to the acceleration of inflation and as a way of reducing inflation.

Mechanically balanced budgets are no more a panacea than are mechanical monetary rules. The appropriate level of the budget deficit will differ depending on many things such as monetary policy, on the external sector, as well as the public sentiment about the relative unattractiveness of inflation, unemployment, and lost output. Although many would be delighted with budget surpluses, few would have applauded the 10, 11, or 12% unemployment rates this would have induced in 1975. As for monetary policy, lower deficits would affect inflation through the effect on aggregate demand--no more, no less.

3. A more sophisticated version of the balanced budget approach is the "expenditure limitation" version--where growth in government expenditures is limited to (or in some cases below) the growth in nominal GNP. While there may be some second-order effects of such an approach on inflation (e.g., lower expenditures imply lower taxes which in turn imply at least some one-time moderating effect on costs and prices), there is even less reason to think the expenditure limitation approach will lower inflation than the balanced budget approach. In this approach there are no constraints on either tax or monetary policy, and a government can be fiscally irresponsible with either a growing or shrinking public sector.

New Strategies

The genuine and false strategies are not encouraging--they are costly at best and inefficacious at worst. Given the importance of inflation and the paucity of conventional tools, there has been considerable search for new strategies.

So far only one important new class of ideas has turned up. This is the so-called Tax-based Inflation Policies, or "TIP." The rest of

this paper will be devoted to a discussion of the functioning, design, and effectiveness of TIPs.

TAX-BASES INCOMES POLICIES (TIP)

The basic rationale of TIP is simple. Inflation is generated by a process which has externalities, much like pollution. In making their own private decisions to raise prices and wages, private agents generate "macroeconomic externalities" because these decisions raise aggregate price indices rather than simply changing relative price changes. The higher price indices lead to restrictive macroeconomic policies and real income and output losses. Thus in a fashion which is not obvious, there are externalities here just as much as at Three Mile Island.

In response to pollution, it is customary to propose measures which restrict emission of individual sources. They may be regulatory (like price and wage controls) or price-like effluent taxes (which would be akin to TIP). Whichever of these alternatives is chosen, once governments choose to enter into the price and wage arena, a policy should attempt to give firms, unions, and workers decentralized incentive to moderate their price and wage raising behavior.

Would TIP Work?

There are basically two reasons why a TIP might work. One is of a "social compact" view and the other is the "incentive" theory.

The social contract view has its roots in the European tradition of tripartite bargaining of unions, firms, and the government. For example, in Britain in 1974 and 1975, the trade unions accepted wage restraint in return for certain personal tax reductions. There is no doubt that the dramatic deceleration of wage inflation in Britain from 1974 to 1977 was in some part due to the success of this social contract.

My view is that the social contract can play virtually no role in the success of TIP (or incomes policies more generally) in the United

States. The labor movement in the United States is too decentralized, and the AFL-CIO leadership too weak, to exercise any significant effect on the labor settlements as a whole. Given anti-trust laws, there is even less room for a contract with business. Nor is there any forum for such bargaining to take place. Thus the idea that a TIP can somehow galvanize major groups into significantly changing behavior, without providing incentives for individual unions or firms, seems implausible.

A second view of the effectiveness of TIP is that it provides an incentive for firms and workers--i.e., TIP changes behavior basically because it is in the self-interest of the workers and firms to change their behavior. This view of TIP is based on a deep economic tradition that ascribes profit or utility maximizing behavior to firms and workers.

It may be useful to show how a TIP will work in our simple model outlined above. We have up to now assumed wages are a simple aggregate. TIP functions critically by working on the distribution of wages.

For simplicity we will analyze what will later be called a one-year wage-carrot TIP, one quite similar in many respects to the Carter Administration's Real Wage Insurance (RWI) proposal. In this example, a reward is offered to any individual (or group) whose wage rate increase (w_j) is less than a standard (\bar{w}). Assume that the reward takes the form of a one-time taxable earned income credit of R percent.

What is rational individual behavior? Consider two cases.

Case 1. A one-year contract, with any real wage loss made up the second year. If the wage gain would otherwise have been w_j^* , then TIP is accepted under the condition:

$$w_j^* \leq \bar{w} + R.$$

(here and what follows will be strictly true if the demand for labor is very elastic relative to supply.)

Case 2. A long-term (3 year) contract in which the real wage loss is half made up in the next contract and the rest in the third contract. Then (ignoring discounting), TIP is accepted if

$$w^* \leq \bar{w} + R/4.5 \quad .$$

The important point is that the budget cost of the TIP will depend on where \bar{w} is relative to the distribution of desired wage increases, while the disinflationary impact will depend on the fraction of workers between \bar{w} and $\bar{w} + R$ (or $\bar{w} + \alpha R$, where α is a discount factor for loss in future years as in case 2). An illustration is shown in Figure 1-- see the explanation at that point.

We can apply this simple apparatus to ask what the effect of a 3% wage-carrot TIP might be for the U.S. for 1979--this being a fair guess today as to the payout of Real Wage Insurance. A discount factor of $\alpha = 0.4$ probably is reasonable. If the average worker's private compensation increase were to average 8.5 percent, in an average year there would generally be 18 percent of workers between 7.0 and 8.2 percent (i.e. where $w^* - \bar{w} \leq \alpha R = 0.4 \times 3 = 1.2$ percent). This would imply that on a purely rational basis these 18 percent of workers would reduce their wage increases by 0.6 percent and the aggregate wage increase would be 0.108% lower. The total cost would be 3 percent of earned income for those receiving earnings increases up to 8.2%--about 42 million workers--for a total outlay of around \$15 billion. Note that this cost (\$1.5 billion cost per basis point on inflation) is around that for recession policy (\$1 billion per basis point). On the other hand, the cost involves budget outlays (or transfers) rather than real resource costs; from a social point of view it is surely more cost-effective than recessions.

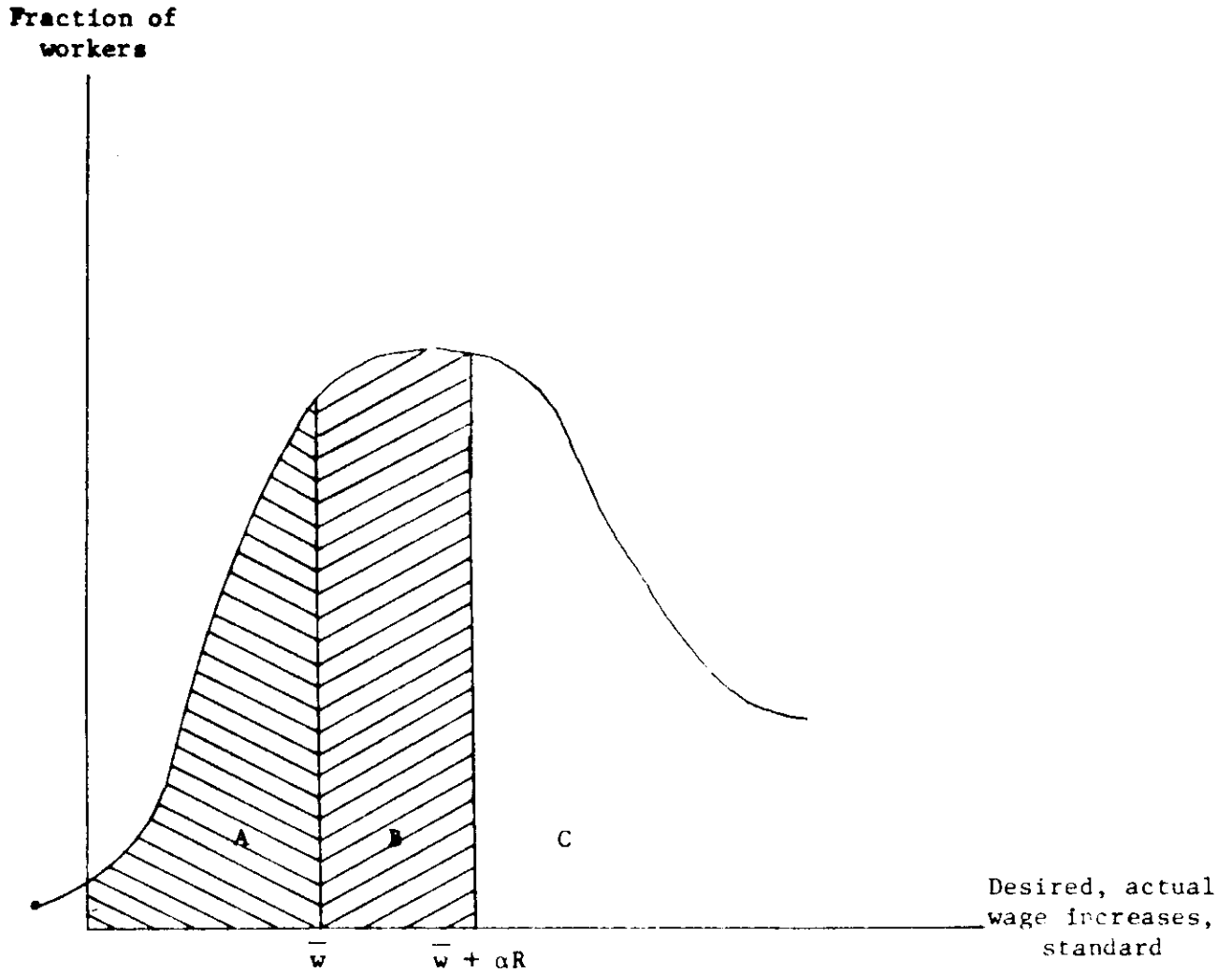


FIGURE 1. Illustration of effect of wage-carrot TIP on behavior.

Those whose desired gains (w^*) are less than the standard get a free ride with no rational effect on their behavior. Those in the range from \bar{w} to $\bar{w} + \alpha R$ will reduce their wage gains to \bar{w} . Those above $\bar{w} + \alpha R$ will not find it worth their while to meet the standard and will be unaffected.

There is yet a careful study to be done analyzing TIP on a "rational" basis. In preliminary work, some bizarre features turn up, such as significant economies of scale in the size of the program. Work along these lines, combined with comparisons of alternative costs of alternative anti-inflation approaches, should be high on the list of research priorities.

Critical Design Questions in TIP

Up to now, TIP has gotten no further than the proposal stage. The most carefully designed example is that of Real Wage Insurance (RWI), proposed by President Carter in January 1979.

The basic design of RWI is straightforward. In this proposal, employee groups that have wage increases no more than 7 percent would receive a tax credit if consumer prices rise more than 7 percent over 1979. The rate of tax credit would be equal to the difference between the actual inflation rate and 7 percent, up to a limit of 3 percent (i.e., coverage extends only to 10 percent inflation). This rate would apply to each employee's wages up to a limit of \$20,000 per job.

In constructing RWI, several important and interesting design issues arose. The following discussion looks at six of these to illuminate some of the key problems which will probably arise under any TIP plan.

1. Prices v. Wages. An absolutely fundamental question that is raised by TIP is whether it should apply to wages and/or prices. Some of the proposals for TIP were relatively comprehensive: they suggested taxes on excess wage or price increases. On careful examination, however, the problems involved in describing a price-TIP look overwhelming. The difficulty is due to two factors. First, a TIP probably will not stand on its own but will be part of a more general and comprehensive anti-

inflation policy. Design of the Administration's proposal took place after the wage and price standards had been formulated. This meant that many design features would have to be common between RWI and the more general program.

Second, the price part of the general guideline program was much more complicated and difficult to formulate than the wage part. Indeed, such is the nature of a complex modern economy. Whereas wages were limited to a 7 percent increase, prices had a dual standard with multiple exceptions and exemptions.

As a result, it was clearly impossible to design a price program in a short time, and it was quickly dropped in favor of a wage only standard.

Is the design of a price-TIP hopeless? I admit that the problems look unsurmountable. The major problem is that it would not only involve a full set of decisions on all possible industries and contingencies, but also the codification of these into law and regulations. In a sense it would require a whole new business tax code for TIP. Just for fun, here are a few random problems. How would costs be defined? Would inventories be valued with LIFO or FIFO? What base period would be used? For multi-product firms, would the TIP apply to each products or to price-indices? If the latter, with what detail would they be constructed and would they be fixed or variable weight? How would product quality be treated? If new products are linked to old, what is to prevent uneconomic and unjustified claims of quality change? Would firms that are regulated be exempt or would they be subject to dual regulation? Would there be a small business exemption? A self-employed exemption? How would multinationals be treated? How would intercorporate transfer prices be treated among wholly-owned subsidiaries? Partially-owned subsidiaries? Foreign affiliates?

Would auction markets be exempted? How would interest rates be treated? And so forth.

The list could be indefinitely extended. It is not that there are no answers to these questions. Rather, there are no good answers. Yet to be effective, answers must be given, or firms will choose the answer that make their case. (Indeed, the present guidelines seem to suffer from just this problem.) To close loopholes, any price-TIP will struggle under the incredible complexity and bureaucratic structure necessary to answer relevant questions. Along the way, I suspect that the American political system would throw up its hands and say that the red tape was not worth the costs.

2. Carrot v. stick. Most of the early proposals for TIPs proposed taxes rather than subsidies as the mechanism for providing decentralized incentives (hence TIP rather than SIP). The reason, I suppose, was simply that if sin is bad the remedy is to tax sin not to subsidize virtue. Or to change the metaphor, if the rationale for TIP is that it provide a better mousetrap, we might attract more mice with cheese than we kill with poison.

There are several fine points to be made in the decision about whether taxes or subsidies are preferable. These include the presence of taxed and untaxed sectors; the shadow price on government revenues; and the distributional differences between the two approaches.

Although this question has the raw materials for a fine and extended theoretical debate, they are not germane today. First, Congress and the country were and are in an anti-tax mood. After social security tax increases, Proposition 13, and wellhead taxes, any tax on excess wages or prices would be a non-starter. A second reason pertains to

peculiar notions of equity. For reasons discussed above, the TIP was to be limited to wages; yet, if a "stick" TIP was to be used, it would only be "fair" to workers if it applied also to firms. This leaves only carrots as a possibility. Third, in this particular case, it was thought that rapid enactment was critical to the success of the program. If the proposal languished through 1979 it would have little effect. Conventional wisdom is that subsidy schemes are more popular than tax schemes and therefore are more likely to pass quickly. Again this suggests using the carrot approach.

It might be asked how eternal these vertities appear with hindsight. I continue to think that the case for the carrot is compelling at this time. In other circumstances, things might change. The main drawback, in retrospect, is the fact that the program becomes very expensive with adverse inflationary shocks (see point 6 below). This seems to me to be the major reason why a pure carrot approach has some serious drawbacks.

3. Insurance v. Buyout. In considering the various options, there were two competing schemes for the wage TIP. The first (and one finally chosen) was the insurance TIP. The insurance TIP would guarantee the "real wage" of the participant by making up the difference between the actual inflation rate and the wage standard 7 percent. A different version was the unconditional "buyout" TIP. Under the second version, participants were given an extra tax credit (say 1 or 2 percent of earned income) if they would "join" the TIPlers club by adhering to the standard.

The insurance approach was chosen because it was (then) thought that it would be cheaper than the buyout. Moreover, the insurance feature could arguably have had added attraction to risk-adverse workers. Finally, it might be easier to terminate than a straight handout. The cost was

that the insurance approach looked gimmicky on a scheme that was already extremely novel. Moreover, the insurance feature meant that the costs of the program were a lottery and random fiscal policy has few admirers.

The design feature is a much closer call than some of the others. The insurance approach may be too clever, and the government may itself get caught in the trap. A simpler and more predictable approach might be preferable for the next design.

4. Who should be exempted? The problem of inclusions and exclusion from the real wage insurance is a very difficult problem. The conventional wisdom before the Administration proposal was that it would be impossible to have a strict definition of eligible groups with a carrot TIP and a good deal of money would be wasted. As it turned out, because of the influence of the hardheaded Treasury, the scheme was very tightly drawn.

Some examples of the kind of problems that are raised in a carrot TIP: What do you do with the self-employed or the farmers? The fear might be that to win the farm vote, you would have to include farmers. The Administration proposal made the sensible suggestion of including only those who are employees and exclude those who are major shareholders and might therefore simply defer wages. A similar problem arose with the low-wage worker. They were exempted from the wage standard and there might have been strong pressures, on grounds of hardship, to give them real wage insurance automatically. Again, the decision was instead in favor of making them subject to the rules as any other worker would be.

5. Union v. nonunion workers. Treatment of union and non-union (or more generally contractual v. noncontractual wages) is a very sticky question. The tension in the design arises because it is unclear whether

TIP should follow the same principle as the guidelines or whether it should be an internally consistent piece of tax legislation. Should there be horizontal equity across workers or across programs?

The reason for the difficulty was that under the guidelines collective bargaining agreements received approval as of the contract date (ex ante), while other wages were judged to comply after the end of the program year (ex post). In part, this distinction arises because contracts can be costed out in advance while informal arrangements cannot. In part, ex ante treatment arises because of the key importance for reducing inflation of slowing the key union settlements.

From the point of view of tax policy, the principle of neutrality would have been preferable: that is, all workers would be treated equally no matter what their institutional wage format. This, then, would have required that all wages for the purpose of TIP would be measured ex post, at the end of each program year. Unfortunately such an outcome would have been a setback for the overall inflation program; here, as in point 1 above, the fact that the TIP must be an integral part of a unified program was very important. The problems with the tax policy approach were two-fold: first, it would have provided little incentive for big union contracts to comply because they are usually front-loaded. Second, it would actually have led to a dual-standard for large union contracts--for the standard for three-year contracts was 7 percent over the life of the contract and 8 percent in the first year, while the TIP had a 7 percent first year limit. Finally, it probably would have sown so much confusion that both programs would have been subject to ridicule. Thus, the fact that the guidelines program was in place and that there was

need for coherence led to the outcome that tax policy was bent to the needs of the anti-inflation program.

6. Budget cost. One of the most difficult problems which arises in TIP design involves its budgetary and fiscal consequences. For RWI, as a result of two choices--the carrot and insurance approaches--the budget costs were both highly uncertain and potentially very large. The major issues arising here were how to limit budget exposure and whether the anti-inflation gains were, in some general political sense, worth the budget costs in a year of budget stringency.

The issue of how to limit the budget is extremely difficult. Under RWI, total "costs" would be determined by the fraction of workers who qualify and by the inflation rate. Assuming 50% of workers qualify, with average covered earnings of \$12,000, every point of inflation over 7 percent would lead to \$6 billion of gross costs (or about \$5 billion after tax). More refined estimates gave a cost estimate of \$4.5 billion per point of inflation. In the (then perceived) very unlikely case where a repetition of 1973-74 were to occur, with inflation at 12 percent, the cost of the program would be over \$20 billion.

It is clear that a very high estimated possible cost (like \$20 or \$30 billion) would doom the RWI proposal. Moreover, there is some question about the wisdom of having a policy which leads to fiscal stimulus in a period when inflation accelerates. Three options were available to keep the costs down: (a) Having a balancing tax (like a wellhead oil tax) which would trigger when costs get too high. This was too cumbersome and would doom the whole program. (b) Putting on an aggregate budget limit (such as \$10 billion) which would lead to a scaling down of the payoff if the inflation or participation rates rose too much. (c) Using

program design characteristics which would limit the cost--making RWI taxable, limiting qualification and, most important, giving insurance only up to an inflation rate of 10 percent. The latter approach was selected.

As it turned out, the budget risk problem attracted less attention than budget cost problem. When RWI was proposed, it looked as if it might be cheap--for inflation was forecasted to be under 7%. By the January 1979 Budget, the forecast was 7.4%. A good guess now (end of March 1979) would be an inflation rate for the program year of 9.5%, with a consequent budget outlay of around \$11 billion.

The problem arises because--Milton Friedman and popular opinion notwithstanding--the budgets of the President and the Congress must find room for the \$2.5 or \$11 billion (or whatever amount it estimates). If the budget deficit is to be limited to \$30 billion, then \$2.5 or \$11 billion (or whatever) of other concrete expenditures or tax cuts must be shelved. Instead, the Budget Committees of the Congress shelved RWI.

"Finding the room" for RWI is not a major design problem, since that is somebody else's job. However, two serious and enduring budgetary problems will probably face any future attempts to use TIP. First, any effective TIP will have to have stiff financial penalties. There are no free anti-inflation lunches; big sticks or carrots are needed for big horses. I cannot see how a serious TIP program could operate with gross taxes or subsidies less than \$10 or \$20 billion a year. This will imply that any taxes will be fought bitterly by those they hit, while subsidies will be fought by interest groups who wish the money for their own program. Even if TIP is a "good buy" for the economy as a whole, the problems of selling it when large transfers are involved seems immense.

A more interesting economic problem is whether the fiscal impact of a TIP should be pro- or anti-cyclical. (By "pro-cyclical" I mean a positive inflation shock leads to greater subsidies or smaller taxes.) Carrots need not share the feature of RWI of being pro-cyclical--it is the insurance feature that leads to the higher payout with higher inflation. For most TIP programs we would expect the opposite--that higher inflation would lead to lower compliance and higher taxes or lower revenues--i.e., they would be anti-cyclical.

It is not at all clear whether it is desirable that TIPs be pro- or anti-cyclical in the sense defined above. It is generally thought that when real output declines, an automatic stabilizer should reduce taxes, and a progressive tax system does this quite well. What is the appropriate response to an exogenous increase in inflation? This depends on the source of the inflation (temporary v. permanent) and on our attitudes toward inflation (should we or should we not accommodate inflation). Since an exogenous increase in inflation seldom leads to an offsetting decline in real growth, we would only want a TIP to be pro-cyclical if we were more averse to real output declines than to inflation increases. Moreover, some inflationary shocks are contractionary (food price shock) while others lead to tighter labor markets (a productivity slowdown).

TIPs are already complicated enough without their getting swamped in the debate about fiscal policy or whether we should accommodate inflation. Perhaps the best answer is that they be self-balancing (i.e., raise no net revenue). This would be useful, if for no other reason, simply because we could avoid endless debates about where the TIP payout which unbalanced the budget and increased the money supply would actually be inflationary.

RWI:RIP

In early April, 1979 the Real Wage Insurance proposal died a graceful death in the Congressional Budget Committees. What went wrong?

A postmortem reveals three things. First, RWI was too new and gimmicky for many legislators to accept--its time had clearly not come. Second, there was great skepticism in Congress about whether it would work.

Third, and most important, any realistic budget estimate would yield a cost of \$10 billion for RWI. Congress could not accept either squeezing this out of other programs or adding this to the Federal deficit. With a Constitutional convention looming like an iceberg on a foggy night, better to abandon ship than to hit the iceberg.