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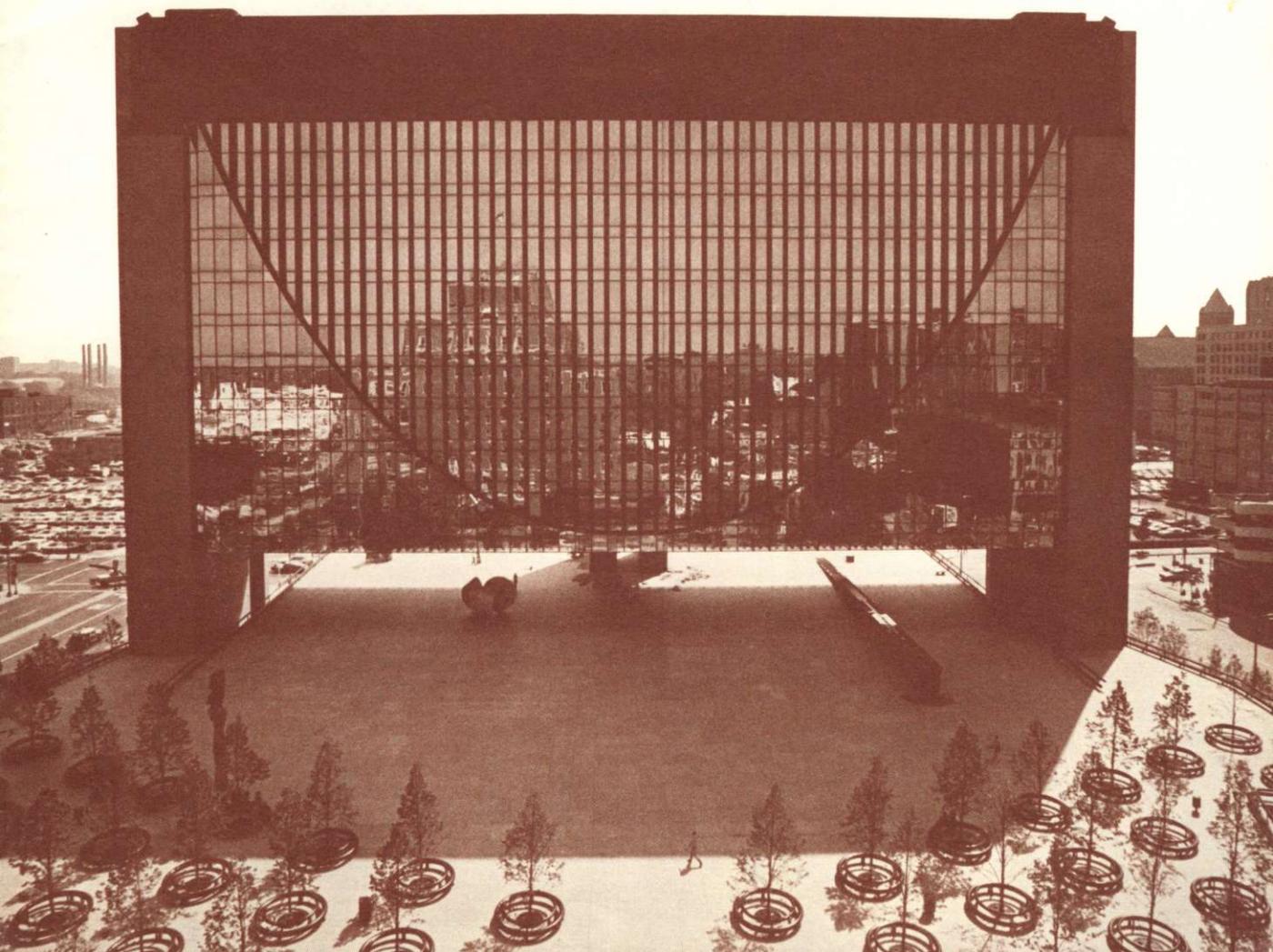
Spring 1978

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# TIP: The Wrong Way to Fight Inflation

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Most economists agree that the only proven way to fight inflation is with fiscal and monetary restraint. Still, an auxiliary weapon has recently been proposed and enthusiastically discussed as worth trying: a Tax-based Incomes Policy (TIP). In its basic form, this policy levies a tax on wage increases and counts on lower wage increases turning into lower price increases. Arthur Okun of the Brookings Institution and Henry Wallich of the Board of Governors of the Federal Reserve System have urged adoption of their own versions of TIP in speeches and articles carried prominently in the media,<sup>1</sup> the Council of Economic Advisers discussed TIP plans in their 1978 annual report,<sup>2</sup> the Ford Foundation gave the Brookings Institution \$75,000 for a one-day seminar on TIP in April,<sup>3</sup> and the Senate's Banking, Housing, and Urban Affairs Committee held two days of hearings on TIP in May.<sup>4</sup>

In this article we examine the case for TIP and explain why this policy is the wrong way to fight inflation. Looking closely at how TIP would affect the economy, we find that it would be counterproductive.

A major flaw in TIP is its reliance on the stability of the relationship between wages and prices. TIP proponents argue that the relationship is so close that lower wage inflation turns directly into lower price inflation. Economic theory and empirical evidence show, however, that while wages and prices may be closely related in normal times, the relationship changes when government policies disrupt the wage process. With TIP, the relationship would change enough to actually result in higher prices with lower wages.

Another big flaw in TIP is the side effects it would have. Contrary to what its proponents believe,

TIP would cause all the distortionary and administrative problems of other incomes policies; the difference between TIP and explicit wage controls is just a matter of degree.

## The Mechanics of TIP

Although TIP has many variants, they all reduce to being a tax on wage increases. They would work something like this: Each year the government would announce a wage increase guidepost for the next calendar year. It would also announce a TIP tax schedule. At the end of the year firms would pay a tax according to the schedule if the wage increases they granted exceeded the government's guidepost; they would receive a subsidy (a negative tax) according to the schedule if the wage increases were below the guidepost.

As an example, suppose the government announced a wage increase guidepost of 6 percent and a tax rate of 3 percent. That would mean that for each

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<sup>1</sup>Henry C. Wallich, "Stabilization Goals: Balancing Inflation and Unemployment," *American Economic Review*, May 1978 (Papers and Proceedings of the Ninetieth Annual Meeting of the American Economic Association, New York, December 28-30, 1977), pp. 159-164; Arthur M. Okun, "The Great Stagflation Swamp," *Challenge*, November-December 1977, pp. 6-13; Lindley H. Clark, Jr., "The Outlook: Review of Current Trends in Business and Finance," *Wall Street Journal*, February 6, 1978, p. 1; Gardner Ackley, "Okun's New Tax-Based Incomes-Policy Proposal," *Economic Outlook USA* (Survey Research Center, Institute for Social Research, University of Michigan), Winter 1978, pp. 8-9; "Another Weapon Against Inflation: Tax Policy," *Business Week*, October 3, 1978, pp. 94, 96.

<sup>2</sup>U.S., President, *Economic Report of the President together with The Annual Report of the Council of Economic Advisers* (Washington, D.C.: Government Printing Office, 1978), pp. 151-2.

<sup>3</sup>Thomas E. Mullaney, "\$75,000, One-Day Seminar on Okun Plan for Inflation," *New York Times*, February 15, 1978, p. 53.

<sup>4</sup>David Pauly and Rich Thomas, "TIP: A New Approach," *Newsweek*, May 29, 1978, p. 76.

percentage point of wage increase a firm granted over (or under) 6 percent, 3 percentage points would be added to (or subtracted from) its corporate profits tax rate. If a firm granted a 10 percent wage increase—4 percentage points more than the guidepost—the firm would have 12 percentage points (the 4 excess points times the 3 percent tax rate) added to its profits tax rate (see illustration). If a firm actually granted a 6 percent wage increase, it would pay no tax and receive no subsidy. But if a firm granted a wage increase of, say, 4 percent, that would come under the 6 percent guidepost by 2 percentage points, so the firm would have 6 points (the 2 points short times the

3 percent tax rate) subtracted from its profits tax rate (a subsidy).

TIP, as presently described, could affect output and prices through two channels:

1. It would change firms' employment costs since each dollar of wage increase would cost firms more than a dollar when the tax was included.
2. It could change federal revenues and thus alter the federal deficit.

TIP proponents have proposed that the tax rate and guidepost be set so that the taxes and subsidies bal-

### Here's how TIP could affect a corporation's profits and employment costs.

Effect of a 6 percent TIP guidepost and a 3 percent TIP tax for each percentage point of wage increase over the guidepost

	Before wage increase	After 10 percent wage increase Without TIP	With TIP
Profits before taxes and salary expenses	\$2,000,000	\$2,000,000	\$2,000,000
LESS salary expenses	<u>-1,000,000</u>	<u>-1,100,000</u>	<u>-1,100,000</u>
EQUALS profits before taxes	\$1,000,000	\$ 900,000	\$ 900,000
Corporate profits tax rate	50%	50%	50%
PLUS TIP surcharge	<u>—</u>	<u>—</u>	<u>+ 12*</u>
EQUALS effective profits tax rate	50%	50%	62%
LESS profits taxes (profits before taxes × tax rate)	<u>500,000</u>	<u>450,000</u>	<u>558,000</u>
EQUALS profits after taxes	<u>\$ 500,000</u>	<u>\$ 450,000</u>	<u>\$ 342,000</u>
Total employment costs (salary expenses + TIP surcharge)	\$1,000,000	\$1,100,000	\$1,208,000

\*Computation of TIP surcharge: Wage increase of 10 percent — 6 percent guidepost = 4 excess percentage points  
 $4 \times 3$  percent tax rate = 12 percentage points surcharge  
 $(.12 \times \$900,000 = \$108,000)$

ance out.<sup>5</sup> TIP is intended, then, to have no direct effect on the federal deficit.<sup>6</sup>

The goal of TIP is to reduce inflation at given levels of employment. According to Wallich and Sidney Weintraub:

The twin goals of price level stability and full employment have so far eluded conventional monetary and fiscal techniques . . . [TIP] is conceived as a supplement to the familiar monetary-fiscal policies so that the economy might operate closer to full employment without the inflationary danger of excess demand and "overheating."<sup>7</sup>

Two features of TIP distinguish it from previously implemented incomes policies.

First, although the goal of TIP, like that of all incomes policies, is to slow the rate of price inflation, TIP would act directly only on wage inflation. Previous incomes policies have coupled wage constraints with price constraints. Thus, TIP's effectiveness relies on the closeness and stability of the actual relationship between wage increases and price increases.

The other and perhaps most novel feature of TIP is that it would allow wage increases in excess of the government's guidepost; it would, however, penalize excessive wage settlements with a tax. Business and labor would still be free to reach their own bargains, though the costs of settling could be different for firms under TIP. Wage constraints applied in the past have treated guideposts as ceilings and prohibited wage settlements above them. In this respect TIP is intended to be less repressive and more reliant on market forces than previous wage constraint policies.

### The Case for TIP

Arguments in favor of incomes policies generally reduce to the claim that they improve the Phillips curve relationship between inflation and unemployment—at least in the short run. That is, they allow at least temporarily a lower inflation rate at any given rate of unemployment. Indeed, Wallich and Weintraub state:

An incomes policy projects a direct attack [on wage and price increases] and can thus improve such a tradeoff between inflation and unemployment as may exist in the short run.<sup>8</sup>

The claim that TIP will improve the tradeoff between unemployment and inflation is built on three arguments:

1. *TIP will lower the rate of wage inflation.*

According to its proponents, TIP will do this by stiffening employers' resistance to labor's wage demands. Since TIP makes larger wage settlements even more expensive to employers, they will be more willing to hold out for smaller settlements.

2. *Lower wage inflation resulting from TIP will be translated directly into lower price inflation.*

This argument is based on one observation and one claim. The observation is that for the economy as a whole, prices tend to be a constant markup of unit labor costs (the total wage bill divided by total output). A constant markup implies that the rate of growth in prices is equal to the rate of growth in wages less the rate of growth in output per hours worked (productivity). The claim is that while productivity growth may vary due to cyclical factors such as employment and structural factors such as technological innovation, it will not be affected by the introduction of an incomes policy such as TIP. Since TIP will not affect productivity growth, it will, according to the growth rate relationship, lower the rate of price inflation by the same amount that it lowers the rate of wage inflation.

While TIP proponents' first two arguments build a case why TIP will reduce the rate of inflation, they do not imply by themselves that TIP will improve the existing tradeoff between unemployment and inflation. It is logically possible that TIP will lower inflation by creating more unemployment and so result in

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<sup>5</sup>*Business Week*, p. 94.

<sup>6</sup>One version of TIP would tax wage increases above the guidepost but would not subsidize increases below it (the "stick" approach), while another version would subsidize but would not tax (the "carrot" approach). Each version is a special case of the policy examined in the text. Each one would increase the cost of hiring an extra unit of labor—the stick version due to the increase in tax, the carrot version due to the decrease in subsidy. The actions needed to neutralize the effect of TIP on the federal budget, however, would be different for the two versions.

<sup>7</sup>Henry C. Wallich and Sidney Weintraub, "A Tax-based Incomes Policy," *Journal of Economic Issues*, June 1971, p. 1.

<sup>8</sup>Wallich and Weintraub, p. 2.

a different outcome along the Phillips curve rather than in shifting the curve. That is why TIP proponents must add a third argument to their case.

3. *TIP will have only minor effects on output and employment.*

Proponents include these points in their case: First, since wages and prices will be free to adjust to market forces under TIP, the program will introduce very few economic distortions and inefficiencies. Second, most versions of TIP couple it to the corporate profits tax which is considered to be a nondistortionary tax. That is, the corporate profits tax is not supposed to alter the profit-maximizing level of a firm's output, and proponents argue TIP won't either. Finally, since TIP will be a surcharge on the corporate profits tax, it will be easy to enforce. The IRS can police TIP with little increase in staff, so unlike previously implemented incomes policies, a huge bureaucracy draining resources from the private economy need not arise.

### **Our Case Against TIP**

We believe TIP proponents are right that TIP would slow wage inflation but wrong in their other contentions: lower wages under TIP would translate into higher, not lower prices, and TIP could have large effects on output and employment. To reach those conclusions, we first consider how TIP changes the employment, pricing, and output decisions of a typical firm. We find that TIP acts as a tax on labor. We then expand this analysis to the overall economy.

Our representative firm is assumed to have some power to determine wages and set prices; that seems consistent with what TIP proponents have in mind when they say firms are able to bargain for lower wages and mark up prices based on costs. The firm can produce one good with various combinations of capital and labor. It can employ all the capital it wants at a fixed per unit rental rate, but it can add more workers only by paying a higher wage rate.<sup>9</sup> It can sell more of its product only by lowering the price.

Without TIP the firm maximizes its profits by producing up to the point where the extra revenue from one more unit of output exactly equals the extra cost of producing that unit. Similarly, the firm employs each input up to the point where the extra revenue from the resulting increased production ex-

actly equals the cost of that additional input unit. The extra revenue generated by one more unit of either input is essentially the increase in revenue from selling more output at the original price less the decline in revenue from selling the original output at a lower price. The cost of an extra unit of capital is the per unit rental rate; the cost of an additional unit of labor is essentially the wage paid for the extra unit plus the increase in the wage bill resulting from the higher wage required to attract the extra labor. When the firm maximizes its profits, the change in revenue generated by a minute increase or decrease in labor or capital is exactly offset by a change in costs, leaving its profits unchanged.

Now let us suppose TIP is introduced as a surcharge on the corporate profits tax, as in the earlier illustration. Without loss in generality, we assume that the TIP guidepost is set equal to the wage increase the firm would have paid without TIP. The question is whether TIP changes any of the firm's hiring, pricing, or output decisions.

TIP doesn't change some things. It doesn't change the extra revenues generated by additional units of capital or labor. Those relationships depend on how much output is produced with an extra unit of either input, on how much revenue is increased by selling the extra output at the original price, and on how much revenue is reduced due to lowering the price to sell the extra output. And the cost of an extra unit of capital is still its per unit rental rate.

TIP does, however, change some things. The cost of adding one more unit of labor is now higher. Besides the original cost, the firm will have to pay the TIP tax, because to hire another worker the firm will have to pay a wage above the guidepost. Thus, at the original profit-maximizing position adding another worker under TIP raises costs more than revenues and therefore decreases profits. But if at that same position the firm hires one less unit of labor instead, its costs decline more than before. That is because the firm can pay a lower wage to attract less labor, allowing its wage to come in under the guidepost and

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<sup>9</sup>If we had assumed that the firm could hire all the workers it wanted at a given wage rate, TIP would be irrelevant. The extent to which the market wage rate exceeded or fell short of the guidepost would raise or lower the firm's corporate profits tax rate, but it would not affect the cost of hiring an additional worker.

entitling it to a subsidy. Thus, at the original profit-maximizing position the decline in costs from hiring one less unit of labor is more than the decline in revenues and therefore increases profits.

So TIP will cause the firm to change its hiring, pricing, and output policies: The firm will hire less labor and offer a lower wage, and it will increase its ratio of capital to labor. It will offer fewer goods on the market due to the reduction in labor and thus will charge a higher price for its product. With the guidepost set at its original wage offer, the firm's profits will increase as a result of the TIP subsidy.

Not only will TIP change the firm's decisions in a given economic environment, it also will change the firm's responses to a changing environment. Normally, the firm will increase its labor force and its output when demand for its product increases or when its production process improves to make labor more productive. But with TIP the cost of adding labor rises more steeply than before, so that the firm will respond less to such changing conditions: it will hire fewer extra workers and increase production more modestly than without TIP.

So even though TIP is a tax on profits, it still affects a firm's employment, output, and pricing decisions. In fact, its effects are precisely those of an excise tax on labor. The economy-wide effects of TIP, therefore, will be similar to those of any excise tax—and quite different from what TIP proponents claim.

1. *TIP will lower wages, as proponents say.*

An excise tax lowers the demand for the good being taxed—in this case, labor—and results in a lower price net of the tax—in this case, the wage.

2. *But TIP will raise prices, not lower them, as intended.*

The average price level in the economy is determined by aggregate demand and aggregate supply, the schedules of all goods demanded and offered at given prices. As a first approximation, an excise tax affects aggregate demand only to the extent that it changes government tax receipts. Since we are assuming, as TIP proponents have proposed, that the taxes and subsidies balance under TIP, we conclude that TIP will not change aggregate demand.

TIP will, however, reduce aggregate supply. Just

as with other excise taxes, TIP will result in a lower demand for and a lower supply of the good being taxed. Here, the good is labor, and as we have seen, TIP raises the cost of hiring more workers and reduces firms' demand for them. Faced with lower wages, more workers will substitute leisure for labor, thus lowering the amount of labor supplied. With less total employment and a given stock of capital, then, firms altogether will produce less; that is, the aggregate supply of goods will fall.

Since TIP will not change aggregate demand but will reduce aggregate supply, it will increase the average price level. This means that TIP will change the normally stable relationship between average wages and average prices, the relationship TIP proponents count on to make TIP an effective inflation fighter. Because of the TIP tax "wedge" between what employers have to pay for labor and what workers receive, prices will no longer be the same constant markup of wages.

Standard economic theory suggests that any government policy which alters the wage process will also affect the relationship of prices to wages for a price-setting firm. In his careful study of firm decision making, John Geweke found that:

...it cannot be inferred that since prices of manufactured goods are a markup on wage and raw materials prices, only the latter need be the target of any wage and price control program. . . . It is . . . likely that the form and very existence of the price equation are sensitive to any major change in policy.<sup>10</sup>

Historical evidence supports this contention—and not the case for TIP. Geweke's study sharply rejected the hypothesis that the relationship between wages and prices was the same during either of the last two price control regimes as in other times.<sup>11</sup> And our study of the early 1970s controls yields similar results: Before and after the last controls, prices were closely related to unit labor costs. However, this relationship does not imply a one-for-one pass-through

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<sup>10</sup>John Geweke, "Wage and Price Dynamics in U.S. Manufacturing," *New Methods in Business Cycle Research: Proceedings from a Conference* (Federal Reserve Bank of Minneapolis, Minnesota, 1977), p. 133.

<sup>11</sup>Geweke, pp. 128-9.

from wages to prices. And more importantly, the relationship shifted significantly when wage and price controls were introduced.<sup>12</sup> Controls seem to have initially lowered inflation by lowering the price markup and, hence, profit margins. Both the markup and margins quickly recovered after the policies were removed.

### 3. *TIP's effects on output and employment can be significant.*

TIP proponents argue that wages can adjust better to market forces under TIP than under explicit wage controls, so TIP will produce relatively few market distortions and inefficiencies. But the easier it is for wages to adjust under TIP (the lower the TIP tax rate), the less effective TIP will be in controlling wage inflation. The more effective TIP is in controlling wage inflation, therefore, the less wages will be able to adjust to changing economic conditions, and the effects on output and employment can be very great.

Also contrary to what its proponents believe, TIP will divert resources from productive use to the maintenance of a costly bureaucracy. All the administrative problems normally attributed to controls also occur to some degree with excise taxes. That is because an excise tax and a control are not substantively different; they are different only in degree: the size of the tax rate. With a high enough TIP tax rate on wages, for instance, no firm can afford to pay a wage above the guidepost, so that the guidepost becomes a wage ceiling. And the higher the TIP tax rate, the more severe the administrative problems will be. As the tax rate climbs, people will have more incentive to evade TIP, so maintaining voluntary compliance will be harder. And as with all taxes, defining the tax base will not be easy.

Our last bout with wage controls required 82 pages of definitions, regulations, and rulings.<sup>13</sup> Just some of the questions likely to arise with TIP:

#### *Definitions*

1. Since TIP is attached to the corporate profits tax, how will it be applied to unincorporated businesses and nonprofit institutions?
2. How will TIP be applied to new firms with no past records of salary expenses?

3. How will "the wage" be defined? Wallich and Weintraub suggest that a wage be computed for each firm by totaling wage and salary payments in each job classification and grade, dividing by the number of hours worked in the respective categories, and then combining into a weighted index.<sup>14</sup> This definition does not resolve many problems:

- How will firms be kept from evading TIP by granting promotions? If firms promote people receiving above-guidepost wage increases, their wage indices could grow less than the guidepost although all individual increases are above it.
- How will dollar values be attached to increased payments in kind, like more liberal use of company cars or longer work breaks and vacations?
- How will TIP be applied to payments for work contracted out to self-employed people?

#### *Special Cases*

1. Will TIP be applied retroactively to previously negotiated wage increases?
2. Will TIP allow wage catch-ups to preserve wage structure? Coal miners, for instance, settled for a reported 37 percent wage and benefit increase over three years; should not other miners be allowed to receive similar increases?
3. Will TIP allow wage increases in excess of the

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<sup>12</sup>We estimated a quarterly regression of consumer prices of all items except food against ten past and four future lags of unit labor costs in the private nonfarm sector. In the period 1953:1 through 1971:2 the relationship appears close with an adjusted  $R^2$  of .87. However, the coefficients on future lags are significant and indicate there is feedback running from prices to unit labor costs. Hence, ordinary least squares regressions of prices on current and past values of unit labor costs will have biased coefficients and will not give reliable estimates of how prices change to a change in wages. Moreover, our study, like Geweke's, very strongly rejects the hypothesis that the relationship of prices to unit labor costs remained stable after the imposition of controls in 1971.

<sup>13</sup>U.S., General Services Administration, Office of the Federal Register, *Code of Federal Regulations: Economic Stabilization*, revised as of October 1, 1972 (Washington, D.C.: Government Printing Office, 1972).

<sup>14</sup>Wallich and Weintraub, p. 14.

guidepost if they are needed to satisfy government regulations? It is conceivable that to comply with an OSHA regulation, for example, a firm will have to hire some high-priced labor which will cause the increase in its wage bill to exceed the guidepost. Should the firm also have to pay the TIP tax as a penalty?

### **What if TIP taxed price increases too?**

TIP is obviously the wrong way to fight inflation. While it could hold down wages, it would boost prices and cause a lot of economic distortions and administrative problems.

Possibly in response to criticisms like these, Wallich has suggested that TIP be expanded to also tax price increases.<sup>15</sup> But this would make TIP not essentially different from past wage and price control policies. The difference once again would be just a matter of degree, the size of the TIP tax rate. And many economists have pointed out that although wage and price control policies have been used against inflation in many countries at many times in history, they have never worked for long. Though they may temporarily hold down price increases, once they are removed the distortions they have caused push prices higher than they would have been otherwise.<sup>16</sup>

Why, then, do governments continue to resort to incomes policies?

The answers usually given to this question are either that governments do not learn from history or that people can be fooled into believing that their governments are attempting to do something about inflation. Maybe these answers are right, but they do not attribute much intelligence to governments or their citizens.

Our answer is that governments use incomes policies as a form of taxation. Just as income taxes and inflation transfer resources from the private sector to the public sector, so too do wage and price controls. With controls, the government takes the resources it wants and then does not let people buy all the goods and services they want at market prices. By not allowing people to spend all they want at given prices, controls can be considered a kind of tax on money holdings.

Some form of taxation is necessary to pay for most government expenditures, of course, and gov-

ernments use a variety of them— income taxes, sales and excise taxes, property taxes, inflation. This is because any single tax creates economic distortions which grow increasingly severe as the tax grows in size.

Any incomes policy creates distortions too, and these distortions become severe very quickly. When government expenditures outstrip revenues which can be comfortably raised through existing taxes and inflation, wage and price controls may for a time be no worse a way to transfer resources to the government than greater reliance on normal channels. But experience has shown that before long controls disrupt our market economy so much that they have to be lifted.

Incomes policies, therefore, are very expensive as both a tax and an inflation fighter, and we should be wary of using them. Except in very unusual situations, the government should rely on normal ways to get resources. And it should use the only proven way to control inflation: sound monetary and fiscal policies.

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<sup>15</sup>Wallich, p. 164.

<sup>16</sup>See the preceding article in this *Quarterly Review*.