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Administrative Problems of Tax-Based Incomes Policies

ALTHOUGH 1977 was a good year economically, unemployment and inflation are still serious problems. Over the last few months the outlook for inflation has worsened. Many believe that traditional monetary and fiscal policies will not be sufficient to do the job, as George Perry makes clear in his paper in this volume. And as Laurence Seidman suggests, novel tax incentives or disincentives are being advocated to provide a carrot or a stick to hold down wage and price increases. These tax-based incomes policies (TIPs) would permit a more aggressive use of monetary and fiscal policies without having to rely on direct controls to moderate wages and prices.

While there has been some public discussion of the merits of various tax-based schemes such as those put forth by Arthur Okun or by Henry Wallich and Sidney Weintraub, little attention has been paid to the details of implementing them.¹ This paper focuses on the administrative problems of TIP. A workable scheme must permit the Internal Revenue

1. Two exceptions are unpublished papers by Gerard M. Brannon, "Technical Issues in an Incomes Policy with Penalties" (U.S. Department of the Treasury, Office of Tax Analysis, July 13, 1971; processed); and Richard E. Slitor, "Tax-Based Incomes Policy: Technical and Administrative Aspects," a report prepared for the Board of Governors of the Federal Reserve System (March 20, 1978; processed). In addition, experience with excess profits taxes and with wage and price controls sheds some light on the administrative problems of TIP. See, for example, U.S. Department of the Treasury, Office of Economic Stabilization, *Historical Working Papers on the Economic Stabilization Program, August 15, 1971 to April 30, 1974* (Government Printing Office, 1974).

Service and businesses to determine the amount of tax benefit or penalty a firm should receive. As one might expect, solutions to the administrative problems involve choices and trade-offs.

Preliminary Observations

The administration of TIP will depend crucially on five initial design decisions. First, the scheme may impose tax penalties on firms that grant excessive wage or price increases or tax reductions for firms or workers that restrain price or wage increases.² If the stick approach were taken—that is, if penalties were imposed—unincorporated businesses and small firms, which often employ only rudimentary accounting, could be excluded from the program. These exclusions could greatly reduce administrative problems without having a serious impact on the effectiveness of the program. If, however, Okun's carrot approach were adopted, which offers tax reductions, there would be considerable pressure to allow all business taxpayers and their employees and even nonprofit organizations and their employees to participate and thus potentially qualify for the rewards for good behavior. Thus, although a policy of targeted tax reductions may be politically more feasible, administrative considerations strongly argue for the stick approach. If the latter approach were taken, TIP could be limited to firms like those in Tier I of the Phase II wage controls, November 1971–January 1973. If large firms set wage patterns, then inducing these firms to moderate their wage and price behavior would win the battle.

The stick approach would presumably impose penalties on *firms* that increase wages above some threshold level. The carrot approach, however, would probably provide tax reductions for *workers* if wages have not exceeded the threshold. Providing tax reductions for workers raises a number of vexing administrative problems. Firms would have to inform workers somewhere on the W-2 withholding form that they qualify for the tax break. If an audit of workers indicated that they did not qualify for the tax break, the Internal Revenue Service would have to collect from the firm, leaving the tax breaks for the workers intact. The alternative, to have the Internal Revenue Service collect from every worker directly, would be administratively infeasible.

2. No one has suggested applying a stick approach to *workers*, and such a scheme is not discussed here.

Carrying this theme a step farther, Okun has suggested that firms or workers be invited to "take the pledge" to restrain wages and prices at the beginning of the tax year so that the rewards could immediately appear in withholding or estimated tax payments.³ Perhaps some additional incentives would be offered to those who signed up in advance. Such prospective changes in estimated payments to account for accruals of tax incentives is customary practice. When the rate of the investment tax credit is increased, for example, estimated payments are adjusted accordingly. However, in the case of TIP, the uncertainty is greater. If the failure rate for TIP based on the carrot approach were fairly high, there would be potential collection problems due to underwithholding. For this reason, prospective rewards allowed to individual workers may need to be repaid by their employers. This solution is practical, but it seems to suggest that employees are responsible for successful wage restraint, while companies are to blame for any failure. Whether or not TIP is designed to affect advance payment of tax, we conclude that a stick approach that imposes penalties on firms is preferable on administrative grounds to a carrot approach offering tax breaks for workers.

The second initial decision with important administrative implications is whether the rewards and penalties apply over the full range of possible wage and price changes, such as that proposed by Laurence Seidman, or whether they depend on the firm remaining above or below a threshold or "hurdle." Under a continuous program, higher prices and wages reduce the rewards or increase the penalties according to a specific formula. As Seidman points out in his paper, a continuous program ensures that all covered firms are given an incentive to moderate wage or price increases at the margin. This incentive increases the efficiency of the program, but also requires that the exact increase in wages or prices is known for every firm.

The hurdle approach has rewards and penalties that depend simply on whether a firm's wage increases are below, say, 5 percent a year. This type of approach would present fewer administrative problems than the continuous one for either the carrot or the stick proposals. For many firms, it would be clear that wage increases were within some narrow range, say, between 4.0 and 4.5 percent. These firms would qualify for the reward or avoid the penalty, and the size would not depend on whether

3. Arthur M. Okun, "The Great Stagflation Swamp," *Challenge*, vol. 20 (November/December 1977), p. 13.

the firm increased wages by 4.0 instead of 4.4 percent, but rather on whether the increase was less than 5 percent. An advantage of this hurdle approach is that Internal Revenue Service enforcement could be restricted to firms that are near the hurdle. On the other hand, the approach can only succeed if firms cannot arbitrarily adjust their accounts so that an actual 5.9 percent wage increase is measured as a 4.9 percent increase. Under the alternative continuous approach, this kind of adjustment is less of a concern because it either reduces the penalties or increases the rewards; it is not an "all-or-nothing" proposition. On balance, we judge that the hurdle approach raises less difficult administrative problems than the continuous approach.

A third initial design decision is whether the program is a temporary or a permanent one. If a tax penalty were imposed for only one year, it might have arbitrary effects among firms, depending on when they customarily raise wages and prices. For example, a firm operating on a calendar year may increase wages in a base year by 9 percent on September 1, before TIP is announced. Even if the firm did not increase wages the following year, it could not pass a hurdle of less than 6 percent if the wage increase were measured by the change in the total annual wage bill. Under the hurdle approach, this type of intrayear timing problem would persist for a permanent policy because there would be an incentive to bunch wage and price increases. The intrayear problem would tend to wash out if the program were continuous and in effect for a number of years. For a temporary policy of any type, complicated intrayear adjustments annualizing wage and price increases occurring during the year may be needed to reduce the arbitrariness of the program. Special rules or exceptions may be needed for multiyear contracts that provide future wage or price increases.

Firms and workers participating in a temporary program may agree to compensatory wage increases or bonuses to be paid after TIP expires. This may be particularly true of small firms. The best way to avoid this problem is to indicate initially that a temporary program might well be extended if it were successful in moderating inflation.

The fourth initial decision is whether the basic accounting unit for wage and price increases should be the plant, the corporate entity, or the conglomerate. In the case of a TIP that applies only to wages, the basic accounting unit could also be the bargaining unit or class of workers.

Many tax and financial accounting systems may not easily permit a division of the wage bill among plants of one firm. Data, however, are

available on the wage bills of particular corporate entities within a corporate group. For these entities, data may also be available by bargaining units or classes of workers.

Disaggregation by employee groups within a corporation may be desirable if wage restraint is to be regarded as a "pact," or social contract, among employers, employee bargaining units, and the government. This type of disaggregation was followed in the Phase II wage controls of 1971-72. In that program, the designated "appropriate employee unit" was the bargaining unit; in the case of nonunion employees, it was a recognized class of employees. Reports and notifications were required to be sent to the Pay Board and were signed by the employer and a union representative. Because of this classification of accounting units (employee units), one group of employees that has greater demands or a stronger market position would not penalize a separate union or class of workers. However, such a classification would be administratively more complex than a policy that consolidated accounts to the level of the taxpaying unit. In nonunion situations, the designation of the employee units would also be subject to manipulation if left to the business firm, or would complicate administration if prescribed by regulations.

In the case of price increases, no compelling reason appears to exist for disaggregation of employers below the group of related corporations that file a consolidated income tax return.⁴ Any disaggregation below the level of the consolidated group would require policing of transfer prices between related entities. This is an administrative quagmire to be avoided.

It is assumed in what follows that the basic accounting unit is a group of related corporations that file a consolidated return and that the time period is the accounting period of the group. These rules for the accounting unit are by far the simplest to administer as part of the existing tax system. Corporations may use a calendar year or a fiscal year.

If the basic accounting unit is the consolidated group, it must be recognized that the corporate tax return of the current year may include plants or corporate entities that were included on another corporate tax return in the previous year. And plants or corporate entities included in the previ-

4. The privilege of filing a consolidated return is extended to an affiliated group of corporations, generally corporations in which at least 80 percent of each class of stock of each corporation is owned by one or more of the other corporations included. If a corporation is eligible, it is generally advantageous for it to file a consolidated return.

ous year may no longer be part of the consolidated group. Furthermore, it is possible to sell a plant but not the corporate shell and vice versa. New firms, mergers, and other reorganizations raise special problems that are discussed at the end of this paper. Here, in passing, it should be said that the hurdle approach provides an incentive for corporate mergers between firms a little above and a lot below the hurdle.⁵

The fifth initial design decision is to specify the nature of the TIP penalty or reward. Most TIP proposals have been cast in terms of changes in the rate of the income tax. Thus, the Okun proposal suggests that a percentage of the income tax be rebated for firms and employees of firms that pass the hurdle, while Wallich and Weintraub suggest a surtax on income for firms that fail the hurdle.⁶ Seidman, in his paper in this volume, suggests a variable system with rebates for firms that do better than a specified standard and a surtax for those that do worse.

An economic case may be made for tying a wage restraint to the federal payroll taxes. A payroll tax variant of TIP would then be directly related to a measure of labor cost rather than to capital income. As a consequence, many firms would not have a zero or negative tax base, and there would be no potential dilution of TIP incentives by income tax credits.⁷

In 1973, 56 percent of corporate taxpayers paid no federal income tax. A TIP that alters the income tax rate for the current tax year would have no consequence for such firms. If businesses are subject to TIP, regardless of the amount of income tax currently paid, some approach other than altering the income tax rate should be proposed.

An alternative TIP based on the penalty approach was recommended

5. There are similar incentives already in the Internal Revenue Code. For example, a firm subject to the minimum tax on preference income may want to merge with a firm paying a large amount of standard income tax, and a firm with unused investment tax credits may want to merge with a firm that has sufficient income tax liability to use the credits.

6. "The Great Stagflation Swamp," p. 13; Henry C. Wallich and Sidney Weintraub, "A Tax-Based Incomes Policy," *Journal of Economic Issues*, vol. 5 (June 1971), p. 2.

7. If the TIP penalty were defined as an income surtax (or if the reward were a rate reduction) the availability for some firms of excess tax credits would partly offset the immediate effects of the penalty (or reward). This possibility could be precluded by treating the penalty as a separate tax (or the reward as a tax refund) that would not affect the credit limitations. Presumably the penalty or reward would be based on income taxes after the foreign tax credit but before other credits.

by Franco Modigliani. He would disallow deductions for wages to the extent that the firm's wage increase exceeded a prescribed rate. This approach would affect deficit firms by reducing the amount of net carryover of operating loss, thus producing either a smaller immediate refund of taxes from previous years or higher tax payments in subsequent profit years. However, this method would require an exact determination of the rate of wage increase for all firms that exceed the hurdle rate. It would thus be much more costly to audit than would proposals for "all-or-nothing" penalties or rewards.

The most easily administered type of TIP incentive that would also apply to deficit companies is a credit or surcharge applied to one of the payroll tax bases. These incentives could be defined as additional income tax liabilities or credits so that they would not affect trust funds.

TIP could apply to wages or prices only or to both. The next two sections discuss the administrative problems of determining the extent of wage and price increases. In each case, there are problems of defining the base and measuring the increase beyond that base. The administrative problems are considerable, particularly in the case of prices, unless simplified procedures are adopted. These procedures would be somewhat arbitrary and could distort business decisions such as the choice between debt and equity or between wages and fringe benefits.

Measurement of Wage Increases

In aggregate terms, wage inflation may be said to occur when there is an increase in the average unit labor cost. The amount of wage increase that can be granted without increasing unit labor cost will vary among firms, depending on the rate of growth in labor productivity. In an economy of stable prices, labor compensation would rise roughly according to the average productivity increase; prices would fall in industries in which productivity gains were high, and vice versa. Hence, a policy to control price inflation might operate by attempting over time to limit the rate of wage increase for every firm to the average increase in productivity throughout the economy. It is certainly simpler to administer an incomes policy based on measurement of wage increases than one that hinges on measuring changes in unit labor costs for every firm, especially if there

were no parallel price-restraint program that required the calculation of output-quantity weights.

In the remainder of the paper it is assumed that the wage-restraint program would be based on a measure of increases in hourly compensation. An average level of productivity increase would be allowed by setting the threshold wage increase above the target rate of price inflation.

A comprehensive measure of pay increases would include all elements of labor compensation that could be reasonably valued in dollars. That is, the numerator of the hourly wage rate would be the sum of money wages and salaries, including overtime; accruals of pension rights; profit sharing and other incentive awards; contributions to annuities and group insurance; commissions and bonuses; and any other valuable compensation. The denominator would be the annual total man-hours worked. Such a detailed definition of wages is desirable unless there is some reason to promote the substitution of nonwage benefits for money wages. The Phase II wage controls specifically exempted a number of components of total labor costs, for example. Among these were productivity incentive programs, longevity and automatic progression increases, employer contributions to social insurance, increases due to promotions, increases that resulted in an hourly wage level less than \$1.90 (subsequently raised to \$2.75), and increases in certain qualified benefit plans. All these exempted items are elements in labor cost and are substitutable, to some degree, for more direct compensation. If the main concern of the program is for cost-push inflation, these "loopholes" in the measurement of compensation are to be avoided. Exceptions for deferred compensation may be reasonable if the purpose is primarily to restrain current purchasing power, but in that case, more traditional fiscal policy would be needed.

All the practical problems of measuring nonwage compensation are encountered in defining and administering the income tax. For employees, the incentives to seek substitution of certain tax exempt or unreported nonwage benefits already exist. The strength of these incentives is proportional to employees' marginal tax rates. For employees in high tax brackets, the extra inducement of TIP may often be small. For corporations, there is a strong incentive to avoid understatement of deductible labor costs because these directly reduce corporate tax liability. In the case of pension plans, the understatement of current cost would give no direct tax advantage to employees, but would result in additional corporate taxes. However, most types of current nonwage compensation such

as health insurance and fringe benefits are fully deductible for the corporation as costs of doing business, but are not included as income to employees. Unless these benefits are considered compensation, expanding fringe benefits will help the firm to qualify under TIP without incurring additional income tax liability. Under a policy based on the hurdle approach, the payoff at the margin for reducing measured increases in compensation may be large indeed. For some versions of TIP, if the wage hurdle is set at 6 percent, any device that allowed a firm to reduce the measured increase from 6.1 percent would result in a tax rate reduction on the entire income of the firm. Because of this "notch," firms that are near the margin of the target wage increase would have a strong inducement to underreport increases in compensation, even if the average rate of the TIP penalties or rewards were small. It may even be worthwhile to invite the extra current corporate tax liability associated with understatement of pension costs. A similar potential notch problem exists on the price side of TIP.

PENSIONS

For most firms, the largest nonwage element in labor compensation is pensions. In the national income accounts this element of compensation is measured by employer and employee contributions to the pension plan in the case of funded plans, and by actual benefits paid in the case of nonqualified or unfunded plans. However, neither current benefits paid nor current contributions is a good proxy for the year-to-year increase in the expected present value of future retirement benefits—that is, the increase in the actuarial value, which is in principle the correct measure of the current labor costs attributable to pensions.

Most pension plans are qualified plans, and the companies must currently fund future benefits. The tax law requires that firms meet certain minimum funding requirements. For firms that do not liberalize pension plans during the current year, contributions plus the earnings on pension trust funds would be a reasonable approximation for the year-to-year increase in the present value of expected future benefits. However, when pension plans are liberalized, companies are not required to fund past service benefits that accrued in the current year. Instead, companies may generally amortize these past service benefits over a period of thirty years.

Thus, using current contributions as a proxy for accrued benefits under-

states the increase in compensation whenever a pension plan is liberalized. This will encourage substitution of pension liberalizations for regular increases in wages or current compensation. If TIP were expected to be temporary, workers could receive an increase in future pension benefits when the program was in effect; after TIP expired, ordinary wage increases could again be provided.

Firms may view pension contributions of the current year as the only present labor cost associated with a pension plan that must be passed through in higher prices. The increase in unfunded liabilities or the earnings on previous contributions would not be viewed as a current cost, and consequently would not exert pressure on prices. If this is correct, pension contributions for qualified plans might be considered as the pension element of compensation. Firms above the minimum funding rate, however, should not be permitted to reduce their funding rates.⁸ Alternatively, when qualified pension plans are liberalized, the required periodic actuarial report may provide a basis for estimating increased actuarial value. This method would require regulations to prescribe the choice of a discount rate and to specify a method for determining expected future retirements and the likelihood that the pension will vest.

A wage definition that overlooks accruals of future benefits and takes into account only benefits paid will understate current labor costs. Yet for unfunded retirement plans, benefits currently paid would have to suffice because it is probably the only information available.

OTHER NONWAGE BENEFITS

Stock options present a problem similar to pensions. Ideally, options would be valued at the time of grant. The right to purchase shares of stock at an established price at any time over, say, five years is clearly worth something at the time this right is created. For tax purposes, stock options granted after May 1976 are generally taxed when the option is exercised. The amount of income recognized is the difference between the value of stock at the time the option is exercised and the option price. Corporations

8. Current law provides a minimum funding rule and a maximum tax deduction for a qualified plan. If contributions were considered as the only pension element of compensation, firms above the minimum funding requirement would have an incentive to reduce the level of current funding.

are permitted an ordinary deduction for this difference. These tax rules are justified mainly on grounds of expediency, although it is generally recognized that the taxation of compensation is deferred until the option is exercised. Under TIP, tax rules would probably determine when compensation could be recognized. Corporations thus would have an incentive to grant stock options instead of cash wage increases.

Other nonwage benefits should be included in the wage definition of compensation, according to the current outlays of the firm. These benefits would include contributions to group insurance policies, profit-sharing plans, and paid vacations. In the case of paid vacations, the treatment of vacation pay that is earned but unused in a current year may be an issue. For plans that allow accumulation of annual leave and terminal payments on separation, vacation pay may be counted as it accrues, not as it is used. For contingent plans, adjustment to accruals should be allowed for experience. These rules are in line with tax accounting rules.

A more difficult problem is presented by employee benefit plans that are wholly unfunded, such as medical reimbursement plans. The amount of benefits paid by small firms, which is the only market measure of their value, may vary significantly from year to year because of a random variation in claims, rather than because of changes in coverage. Proper inclusion of these plans in the measure of compensation would require an estimate of the annual market premium for a comparable policy, but this is impractical.

A number of time-honored devices exist for increasing labor compensation without incurring additional tax consequences. Work rules may be liberalized; fringe benefits, such as company cafeterias, improved; and perquisites extended. Such changes would bedevil any wage restraint program. If they are not considered as compensation, TIP would add to the pressure to substitute on-the-job conveniences and company-paid luxuries for money wages. The administrative problems associated with fringe benefits are less severe under TIP than under the income tax because the former would not require that the value of the benefits be allocated to particular employees.

General rules for the evaluation of these benefits are relatively easy to formulate, but they are difficult to administer in detail. Consider such items as expense accounts, low-rate loans, use of company automobiles, discount goods and services, and the like. These privileges should be included in the wage measure to the extent that they are not directly related

to job performance. They should be valued at the market price or at the difference between the discount price and the market price.⁹

Irregular compensation such as commissions, piecework wages, and bonuses should be included in total compensation as if they were regular wages. Measuring these kinds of compensation and also the salaries of professional and management personnel presents the problem of defining the denominator of the hourly wage fraction rather than the numerator. In the case of salaried employees, the simplest device is to specify a fixed number of hours per week, possibly 40, to be ascribed to each "full-time equivalent" employee. The same kind of rule may be applied to employees paid on a commission or a piecework basis unless explicit records of hours worked are kept.

ADJUSTMENTS AND EXCEPTIONS

Another set of wage measurement issues involves the extent to which gross increases in hourly compensation should be adjusted for such considerations as year-to-year variations in the amount of overtime, changes in the skill mix, changes in the average length of service, explicit escalator provisions, and incentive awards.

Equity might suggest that a firm with more overtime than the average in the current year should not be penalized under TIP. This would require that an adjustment for overtime be made both in the base period and in the current year. Many firms, however, would not have records to support the amount of overtime pay in the base period. We would recommend that no adjustment be made for overtime.

TIP would provide an incentive for firms to contract out for high-wage labor services. Suppose, for example, that a small construction firm, consisting of five laborers and two engineers, wishes to hire an additional engineer. Under a strict hourly wage hurdle with no adjustment for classes of workers, hiring the engineer outright could cause the firm to incur the TIP penalty or forgo the reward. Hiring the additional engineer as a

9. The Securities and Exchange Commission requires that listed corporations disclose the total remuneration of certain executives. Some of the flavor of the administrative difficulties and range of issues involved in defining the value of fringe benefits in a wage measure can be gained by perusing the interpretive responses of the SEC to questions about its disclosure rules. See *Federal Register*, vol. 43 (February 13, 1978), pp. 6061–62.

consultant would allow the firm to qualify unless there were regulations to count consultants as employees. Ordinarily it would be impossible to make adjustments for service contracts because such contracts typically do not specify hours worked.

In dealing with adjustments for changes in the skill mix, the recent wage controls interpreted the meaning of the term "wage increase" rather narrowly to mean increases in the regular compensation for the same level of job held by employees with the same length of service and quality of performance. A similar meaning is implied by Wallich and Weintraub, who suggest that a "fairly water-tight specification of a wage increase" would be given by the weighted average of hourly wages and related payments in each job classification and grade.¹⁰

However, the specification of such an index adds significantly more to the compliance and administrative burden than a simple average hourly wage measure and relies heavily on the job classification system of business organizations. If the coverage of TIP is to be nearly universal, most small firms would need to develop a classification system and all firms would be tempted to alter their classification in order to achieve the specified standard. Under such a system, for instance, "paper" promotions from editorial assistant to junior editor may be used to provide wage increases without penalty or to earn the rewards.

For example, suppose that the prescribed method is to calculate the weighted average of percentage increases in hourly compensation among all classes of workers, where the number of workers in the base period is the weight for each class. Unless classes are defined very narrowly or in a strict hierarchy according to the level of compensation, it is always possible to "promote" an individual while leaving his relative pay unchanged, and thereby to lower the average wage in each class. This simple kind of manipulation could be used to offset a portion of aggregate average wage increases.

To the extent that employee incentive awards, increases for length of service, and promotions are intended to reflect increased productivity, these changes in compensation already are allowed for in setting the wage-increase hurdle. Actual shifts in the mix of employment toward classes that receive higher pay will be penalized if TIP is based only on the change in aggregate hourly compensation. Also, firms in a cyclical downturn may

10. "A Tax-Based Incomes Policy," p. 14.

be arbitrarily penalized if layoffs affect primarily employees with fewer skills who receive less pay.

A final issue in the definition of a wage index is whether exception should be allowed for employees earning low wages. At the beginning of the Phase II wage controls, for example, any increase in wages up to the statutory minimum wage was exempt from wage controls. Apparently the presumption there was that the social policy of raising or maintaining income shares for the workers earning the lowest wages overshadowed the importance of wage control. Certainly if the wage increase were mandated by an increase in the minimum wage, it would be difficult to argue that the affected employers, or employees, should bear the penalties or be denied the rewards of TIP as a consequence. Nonetheless, any such exceptions will complicate administration and compliance.

AN OUTLINE FOR REPORTING WAGES

A useful way to summarize and further focus the discussion of wage measurement is to describe a possible reporting form or a tax return schedule for TIP. The reporting forms used during the Phase II wage controls are a useful example in this regard. In broad outline, these forms required the employer, or the employer and the bargaining unit jointly, to establish a base-period level of wages, including certain benefits; to calculate the amount of explicit wage increases, including the secondary effect of these increases on benefits; and to estimate the value of certain benefit increases. The total of these increases was then calculated as a percentage of the wage base. The emphasis in the Phase II reporting was on adjustments during the period. There was no requirement to calculate total wages—projected or actual—over the reporting period.

Some of the difficulties of using the Phase II experience as a model for TIP can be appreciated by reading the instructions to the wage control forms. For example, to estimate the value of benefits and of benefit increases the instructions advise “if exact expenditures are not available, report your best estimate, and indicate by entering ‘EST.’ ” This level of precision is not appropriate as the basis for a tax or a tax credit.

The simplest, most readily administrated wage reporting form would be one that required the reporting of total wages and nonwage benefits for the current period and for a base period, with each divided by total hours

worked in the respective period. TIP rewards or penalties would then be based on the ratio of the compensation per hour for the current period to that for the base period. In broad outline, the reporting form would include:

	<i>Base</i>	<i>Cur- rent</i>
1. Total cash compensation paid (including but not limited to wages, salaries, bonuses, commissions, tips, vacation pay, sick pay, overtime pay, incentive awards, and allowances in excess of work-related expenses).	_____	_____
2. Contributions to premiums for life, health, accident, disability, or other private insurance (for unfunded plans, the cost of benefits paid would be reported).	_____	_____
3. Contributions to saving and thrift plans.	_____	_____
4. Other valuable compensation (including but not limited to the amount of employee discounts, goods and services provided by the employer for personal use, stock options, and the subsidy element of low-interest loans).	_____	_____
5. Total compensation (the sum of items 1 through 4).	_____	_____
6. Total hours worked (all hours worked by full-time and part-time employees, including salaried, commissioned, and piece-rate workers; excludes vacation and other leave).	_____	_____
7. Compensation per hour (item 5 divided by item 6).	_____	_____
8. Average percentage change in compensation per hour (the current-period figure for item 7 divided by the base-period figure for item 7 minus 1.0).	<u> X </u>	_____

The worst injustices resulting from shifts in the employment mix could be accommodated without adding greatly to administrative burden if this type of calculation were made separately for certain broad and recognizable classes, and then averaged, using full-time equivalent employment in the base period as weights. Classes might be limited, for example, to hourly employees, salaried and commissioned employees, and corporate officers or partners.

Measurement of Price Increases

Extending TIP to prices increases the administrative problems several-fold. In the case of wages, a basic unit of labor, or man-hour, can be adequately defined. Total compensation, however defined, can then be divided by total man-hours to obtain compensation per man-hour.

In the case of product prices, there is no such basic unit. Thus, it is not possible to divide total sales revenue by total units of output to obtain price per unit of output. Instead, a price index must be created for each covered firm. This is not a simple task when some companies such as Dow Chemical produce over 100,000 separate products.

What makes matters even more difficult is that a firm may have raised its price only because it was passing through an increase in the cost of purchased materials. Consider the following data for a firm that produces only one product and uses only one purchased input:

<i>Transaction</i>	1977			1978		
	<i>Quantity</i>	<i>Price</i>	<i>Quantity × price</i>	<i>Quantity</i>	<i>Price</i>	<i>Quantity × price</i>
Sales of output	10	10	100	12	15	180
Materials purchased	20	2	40	24	4	96

Between 1977 and 1978 this firm increased the price of its output by 50 percent, but the price of its purchased materials doubled. Does this firm qualify for a tax reward or should it be subject to a tax penalty?

The firm knows that its 1978 sales totaled \$180, of which \$60 was due to increases in the price of the product. The firm also knows that its 1978 cost of purchased materials was \$96, of which \$48 was due to the doubling of the cost. Thus, the value-added price increase was \$12 (\$60 less \$48) or \$1 per unit of output. If the price of the product in 1978 had been \$14, there would have been no value-added price increase. The \$4 increase in the price of the product would have just passed through the \$2 increase in the cost of the purchased material.

VALUE-ADDED PRICE INDEX

To determine whether there has been a value-added price increase, the firm must know the previous year's prices of purchased materials and output. The price of a product of the previous year is likely to be a weighted

average of the prices at which the product was sold during the previous year, and special rules may be required for temporary special allowances offered during the base period. The firm would then measure the total value added using prices of the previous year and compare that with the total value added using the prices of the current year. In short, the firm would construct a value-added price index using quantity weights of the current year for both outputs and purchased materials. Constructing such an index would raise all the traditional problems involved in preparing a price index.¹¹

The first problem in developing a value-added price index is to define a product or an input by statute or regulation. For example, how many kinds of automobiles does General Motors sell in one year or how many kinds of steel does Bethlehem Steel produce? In the case of a stationery store, are felt-tipped pens different from ball-point pens? Separate products or inputs would have to be defined with sufficient clarity that the firm and the Internal Revenue Service could easily compute the value-added price index.

New products or newly purchased inputs would have no price for the base period, and special rules would be required to establish one. (A similar problem exists with respect to certain products, such as special equipment that was last produced two or three years previously.) These products could be assigned a price for the base period equal to cost plus the net operating profit the firm received on the most nearly similar product it sold during the base period. If the firm had no similar products in the base period, the price could be set by the amount charged by other firms for similar products in the base period. If no similar products existed in the base period, the price could be determined by the firm's customary pricing practices during the base period.

These suggestions for handling new products parallel the recent price control rules.¹² Yet they raise as many questions as they answer. What is a "similar" product? How is "net operating profit" measured for a particular product? What are "customary pricing practices"? Presumably the

11. Using the quantity weights of the current year understates the true price increase, but we assume that this bias does not discriminate against particular firms and industries. We do not intend to debate here the relative merits of the Paasche, Laspeyres, or other indexes.

12. See *Historical Working Papers on the Economic Stabilization Program*, pt. 1, p. 257.

answers to these questions would come from either the statute or the regulations promulgated by the Department of the Treasury.

One possibility for handling new products would be to omit new products and new purchased inputs from the calculation of the value-added price index. This would still leave the problem of determining what is a "new" product or a "new" input, and there would be considerable pressure to alter products or inputs to make them "new."

Closely related to the problem of new products is the problem of quality changes. An automobile manufactured in the current year is different from that of the previous year. Some adjustment would have to be made for product improvement such as disc brakes, safety equipment, and more durable bumpers. Some of these improvements might be allowed by using the price of each item when it was first introduced as optional equipment. The cost of producing these items, however, might be reduced when they became standard equipment. And consumers might value them at less than the optional price. Again, the statute or the regulations would have to provide specific guidelines for quality improvements that both businesses and the Internal Revenue Service could follow easily.

An additional problem with constructing an index is that the base period may not be a typical year. Companies whose base prices or wages are abnormally low would seek an exception or special relief. For example, the major firms in the steel industry raised prices before the freeze of August 15, 1971. These firms thus had a high base price. The smaller firms in the steel industry did not raise prices. These firms as a result were doubly penalized because they purchased raw steel from the major firms and sold finished products in the same market. Although it may be desirable to provide no special relief and to rely on competitive pressures to constrain the prices of the major firms, the political pressure for special rules is probably irresistible.

One possibility for constructing a value-added price index would be to double-invoice all sales and purchases. Firms would then know the prices of sales to customers and of purchased materials for the current year and the previous year. An index could be computed as follows:

$$\frac{\Sigma P_1 Q_1 - \Sigma p_1 q_1}{\Sigma P_0 Q_1 - \Sigma p_0 q_1},$$

where P and Q are prices and quantities of final sales, and p and q are prices and quantities of purchased materials. The problem with this ap-

proach is that materials purchased in the current year may only have increased inventories, or sales made this year may have been from inventories. Complicated inventory rules would thus be needed to determine the value added associated with final sales for the current year and the previous year.

COST PASS-THROUGH

Allowing a pass-through of cost increases is a simple concept, but it raises a number of issues, in particular the problem of which costs should be included.

In general, firms should be permitted to pass through the costs of inputs if the firm is a price taker. However, if the firm has some control over the price of the input, pass-through should not be permitted. This suggests that increased labor costs, for example, would not be included.

Costs that have a continuing benefit for the firm present a difficult problem. For example, a firm might increase the costs of advertising or of research and development, and if such costs were allowed to be fully passed through as a cost increase in the current period, the firm could raise prices by more than would otherwise be warranted. One solution to this problem would be to exclude such discretionary costs from both the current period and the base period. Phase II generally did not permit pass-through of research and development costs or marketing costs above the level of the previous period.

Another problem of cost pass-through involves the treatment of interest, rent, and capital recovery. If interest were treated like the cost of purchased materials and allowed to be passed through, firms would have an incentive to increase the amount of debt financing to reduce their value added. If interest were not treated like the cost of purchased materials, firms that must refinance at higher interest rates would not be able to raise their prices without being subject to tax penalties (or loss of tax benefits). Under Phase II, pass-through was permitted for interest on short-term debt but not on long-term debt, which is a closer substitute for equity. This, however, introduced a discrimination between short-term and long-term debt.

Rent, especially on long-term leases, causes problems similar to those of interest—that is, the choice between ownership and leasing is similar to the choice between equity and debt. If rent increases were allowed to be

passed through, firms would have an incentive to rent rather than to own. If rent increases were not passed through, firms that are required to renew leases might be penalized.

Capital recovery permitted for tax purposes is not likely to reflect the decrease in the value of the plant and equipment during the year. It may be too generous for some firms and not generous enough for others. Even for a particular firm, it may be too generous at times and not sufficiently generous at other times.

Although there are several ways to handle interest, rent, and capital recovery, it would probably be acceptable to permit a full pass-through of these items. The justification of this position is that firms generally are price takers with respect to these items. Full pass-through does not involve serious administrative problems.

In the long run, firms must set prices to earn a rate of return, recover their capital costs, cover operating costs, and pay income taxes. This suggests that firms should be permitted a cost pass-through for federal, state, and local taxes based on income. However, in the short run, firms may have a large increase in profits and income taxes due to a large increase in productivity. An income tax pass-through would provide these firms with more room for price increases. On balance, we conclude that income tax increases should not be passed through unless there are rate increases.

Mandated cost increases such as those necessary for occupational safety or pollution control should be passed through. The problem is to identify these costs separately. For example, part of the plant manager's time may be devoted to occupational safety. Should part of his salary increase be allowed to be passed through in higher prices? Presumably mandatory cost increases should be passed through only if they are identifiable. Thus, the cost of hiring additional safety inspectors could be passed through, but no allocation would be made of the plant manager's salary.

LESSONS FROM RECENT PRICE CONTROL EXPERIENCE

The problems of measuring average price increases arose during Phase II and later phases of the economic stabilization program. How the administrative problems were handled may suggest how the price side of Okun's proposal could be implemented.

During Phase II of price controls the concept of term-limit pricing was developed to permit Tier I firms some flexibility in pricing, provided

they committed themselves in advance to a relatively low average price increase, usually over the following year. This greatly eased the Price Commission's administrative burdens of controlling price ceilings for individual products. Under a term-limit pricing agreement, a firm could raise prices on some products based on cost increases in other products.

Determining whether a firm fulfilled its commitment under a term-limit price agreement raised all the issues surrounding the construction of a value-added price index. For example, a firm would have had to maintain detailed price and quantity records to document its weighted-average price increase.

A firm that had entered into such a term-limit pricing agreement was required to make a quarterly report on form PC-1. However, this form, assuming it was correctly filled out, did not provide the information that would have permitted the Price Commission to determine whether the firm had actually fulfilled the agreement. For example, no data were requested on actual product mix. The official history of the economic stabilization program concludes: "The forms were not specific enough in their requests for information, so companies naturally provided the minimum detail possible Designed in a short time period and utilizing untested accounting techniques, the forms, while perhaps the best available under the circumstances, often gave the analyst inadequate tools with which to assess a company's situation."¹³

During Phase IV of the economic stabilization program the method for calculating the weighted-average price increase was provided in the regulations. The instructions for form CLC-22, the new reporting form, provided guidance on how to compute that increase. The basic rules are summarized as follows:

The parent and consolidated entities filed as a unit.

The basic accounting period was the quarter. The base period was the firm's last fiscal quarter ending before January 11, 1973.

The base price and current price had to be computed for each item. Firms, however, could employ sampling techniques and aggregate by-

13. *Historical Working Papers on the Economic Stabilization Program*, pt. 1, p. 595. For an evaluation of the term-limit pricing procedure and its administrative problems, see Fredric L. Laughlin, "An Evaluation of the Price Commission's Policy of Term Limit Pricing during Phase II of the Economic Stabilization Program" (Ph.D. dissertation, George Washington University, 1975). See also Robert F. Lanzillotti, Mary T. Hamilton, and R. Blaine Roberts, *Phase II in Review: The Price Commission Experience* (Brookings Institution, 1975), pp. 40-50.

products. (Product aggregation could lower the weighted-average price increase if the product mix shifted toward products with lower prices. For example, the average price of Dodges would decrease if compact sales became relatively more important.)

No cost pass-through was permitted.

When computing the base price, prices charged pursuant to temporary special deals or temporary special allowances could be excluded from the computation. (This was a potential source of much controversy, particularly in industries that always offered special deals.)

Firms were required to maintain documentation of the method used in computing the weighted-average price adjustment.

Unfortunately, the experience during the economic stabilization program gives little guidance on the administrative difficulties that might be encountered with TIP because little auditing of company reports was ever done. Firms were essentially on an honor system, and the Cost of Living Council generally accepted the reports as filed.

We conclude at this point that computing a value-added price index for each firm would involve considerable complexity. There is no easy way to define separate products or inputs or to handle new products, quality improvements, and the various issues surrounding cost pass-through. Sampling techniques could ease the administrative burdens for large businesses but would be beyond the capabilities of a small retail firm with many different products. If it is desirable to apply TIP to prices, consideration should be given to a scheme that does not involve the construction of an index.

PROFIT-MARGIN LIMITATION

During wage and price controls, a profit-margin limitation was employed as a supplemental device to allowable cost pass-through. It was assumed that a firm that had not increased its profit margin—the ratio of profits to sales—had not increased its prices excessively.

A profit-margin limitation would solve many of the problems of a value-added price index. No special rules would be required for new products or quality improvements. All costs could be passed through including increases in wages. Presumably the wage portion of TIP would provide a brake on excessive wage increases.

A profit-margin limitation would have some of the problems associated

with cost pass-through. Firms would have an incentive to increase expenditures for advertising and for research and development to shrink profit margins. Unless the test were applied to *gross* profit margins—that is, profits before debt service—firms would have an incentive to substitute debt for equity financing. Base-year problems would also remain, although they would be mitigated because the base period could be an average of several previous years and not merely the preceding year. Special exceptions would have to be made for losses or extremely low profits in the base year. One possibility would be for the government to establish minimum profit margins for specific industries based on industry averages.

The major advantage of a profit-margin limitation is that the Internal Revenue Service could administer it more easily than it could a price limitation. Sales revenue and profits, either net or gross, are concepts with which the Internal Revenue Service has had long experience.

The major political drawback is that a profit-margin limitation would resemble price controls, although a test for gross profit margin might not. Like any excess profits test, a profit-margin limitation would be a penalty on efficiency. It would also penalize industries that are becoming more capital-intensive. A profit-margin test with little real bite, however, might be acceptable to business as part of a TIP that applied real restraint on wages. It is possible that a weak profit-margin limitation would not reduce the effectiveness of TIP. This assumes that if wages were successfully restrained, competitive pressures would restrain price increases.

Special Rules

Whether TIP applies to wages or prices, it may require a number of special rules relating to exports, coverage of particular industries, and corporate mergers and other reorganizations.

EXPORTS

The objective of TIP is to hold down *domestic* wages and prices, but not necessarily foreign wages paid by American companies or export prices. Thus, firms should probably be permitted or required to exclude exports in determining the value-added price increase or the gross profit margin. Because the value-added price index would depend on the quan-

tivity weights of the current year for purchased inputs and sales, the exclusion of exports from the calculation would not cause much additional complexity.

Calculating a profit margin on only domestic sales would, however, require an allocation of profits between export and domestic sales. One possibility might be to use special rules such as those for allocating taxable income between a domestic international sales corporation and its related suppliers. These rules are highly arbitrary and for the purposes of TIP probably are not much better than including all exports in the calculation of the overall gross profit margin. Another possibility would be to require only firms with exports of more than 10 or 20 percent of sales to determine the gross profit margin on domestic sales alone. Firms without significant exports would not be required to exclude them. Firms that were required to do this would have to allocate all costs between domestic and export sales. Special and probably somewhat arbitrary rules still would be required to allocate such costs as overhead, interest, and research and development expenses.

Because TIP is aimed at domestic wages and prices, foreign wages should be excluded, whether paid by a foreign branch or by a foreign subsidiary. However, wages paid to Americans working abroad who are subject to U.S. social security taxes could be included, although this may involve considerable complexity.

EXCEPTIONS

As indicated at the beginning of this paper, if TIP provided tax benefits, all business taxpayers and even nonprofit organizations would want to participate. If, however, tax penalties are to be provided, a number of exclusions that would greatly simplify the administrative complexities would be possible. An effective TIP could exclude new firms, unincorporated businesses, small corporations, and certain industries.

Determining prices and wages for the base period would be a considerable burden on new firms if they were included in TIP. New firms would have to assign base-period prices and wages on the basis of what other firms charged for similar products or paid for similar labor during the base period. If the firm began midway through the year, an intrayear adjustment might also be required.

Excluding small firms would greatly simplify the compliance and ad-

ministrative problems of TIP. For example, applying the program only to firms with more than 100 employees would cover more than 60 percent of total employment, but would eliminate 99 percent of businesses from the record keeping, reporting, and auditing requirements. Given the high one-time costs of disseminating information about the TIP regulations and establishing accounting rules and procedures within firms, it would be especially undesirable for a temporary TIP to have comprehensive coverage. Moreover, if anything more than the most perfunctory auditing were to be contemplated for small firms, the necessary paperwork for those firms and for the Internal Revenue Service would make comprehensive coverage difficult. This kind of paperwork was encountered in administering Phase II controls, and it was eventually accommodated by the exemption of most firms having fewer than 60 employees.

Small firms are most likely to make use of the potential for contracting out for relatively high-cost labor. In addition, small corporations present significant opportunities to reduce salaries and increase corporate taxable income when the owners are also employees. This is particularly true when a small corporation is subject to only the 20 or 22 percent corporate tax rate.

Exemption for small firms and possibly certain industries is also recommended on economic grounds. The proportion of cases for which some special relief from the rules may be needed is probably much larger for small firms. These firms would be more likely to have variations in the skill mix, outlays for unfunded medical insurance, amount of overtime, and so on in the calculation of wage increases.

Exempting small firms would exclude most sectors of the economy in which wages and prices are the most market-sensitive. Even a rather low employment cutoff would exclude most enterprises in agriculture, retail trade, services, and real estate, where administered prices are the exception rather than the rule. However, an exclusion based on employment would also eliminate most private medical services and the construction industry, although large price increases often are associated with these two industries.

Including unincorporated businesses in TIP will require special rules to determine the appropriate amount of compensation. For example, the compensation paid by a law firm or medical partnership should include the income earned by the partners. Partnership income earned by a real estate syndicate, however, is more likely to be unearned income and thus

should not be included in the amount of compensation paid by the partnership. The problem is that the income of a partnership or a proprietorship may include both labor and capital income. A reasonable way to separate the two would be to follow the general rules applicable to the 50 percent maximum tax on personal service income. If capital were not a material income-producing factor, all the income of the unincorporated business would be considered as earned income and thus as compensation paid by the business. If both labor and capital were material income-producing factors, not more than 30 percent of the income of the business would be considered as earned income.

Similar problems exist with including Subchapter S corporations, which are treated for tax purposes like partnerships. We conclude that unincorporated businesses and Subchapter S corporations should be excluded from a stick approach to TIP.

Mergers and other acquisitions raise special problems. Consider four possibilities. First, Bendix buys an Ann Arbor subsidiary from another auto supplier. Second, Bendix does not buy the subsidiary, but instead buys the Ann Arbor plant and equipment from the other auto supplier. In this case Bendix hires many of the workers who previously worked for the other auto supplier. Third, Bendix leases the Ann Arbor factory, including equipment, and retains the employees. Fourth, the other auto supplier closes down its old plant. Bendix then builds a new plant in Ann Arbor and hires many of the workers who had lost their jobs. Should the base period for the two auto supply companies be adjusted for the amount of compensation paid to employees in the old plant during the base year? Clearly no adjustment would be made when Bendix built a new plant because tracing the new workers to the old plant would generally be impossible. An adjustment should probably be made when Bendix acquires the subsidiary, buys the old plant, or leases the plant.

Rules for handling mergers and other acquisitions under TIP would have to be somewhat arbitrary. One possibility would be to follow the rules for the new-jobs credit. According to these rules, adjustments are required for acquisitions or dispositions of a major portion of a trade, business, or a separate unit of a trade or business. For purposes of these rules, certain leases are considered acquisitions or dispositions.¹⁴ Making

14. As of this writing, final regulations on the new-jobs credit have been proposed but are not final. The examples used in the regulations indicate the problems of drawing reasonable lines. See *Federal Register*, vol. 42 (December 14, 1977), pp. 62932-34.

base price adjustments is clearly more difficult than making wage adjustments. Firms are likely to have information on compensation paid by a subsidiary. But reconstructing the base prices of a subsidiary would require policing of transfer prices between the subsidiary and other related entities.

Concluding Comments

We conclude that TIP would entail significant administrative problems for the Internal Revenue Service and compliance problems for businesses. These problems could be reduced to a manageable size if TIP were applied only to business taxpayers, if it were limited to wages, if the hurdle approach were adopted, and if it did not apply to small companies. The administrative and compliance problems, however, still would be significant.

There would be a strong incentive for firms near the hurdle to pass the test by substituting forms of compensation that are not included or are undervalued in the wage index. Experience with wage measurement problems of the income tax suggests that opportunities for substituting forms of compensation that understate the true increase in labor cost cannot be completely eliminated. Establishing the base-period wage level is another problem. Adjustments are required for firms that reorganize or add major new activities. Further adjustments may be demanded for year-to-year changes in the skill mix, overtime pay, or wage increases mandated by law or by previous contracts.

If a parallel program of price restraint were adopted, there would be strong administrative reasons for preferring a profit-margin limitation rather than an explicit price index.

The remaining administrative and compliance problems must be weighed against the expected gains from TIP in moderating wage and price increases. An evaluation of such a trade-off is beyond the scope of this paper.

Comments and Discussion

Joseph A. Pechman: Dildine and Sunley make a serious attempt to lay out the administrative and compliance problems of tax-based incomes policies, which its proponents have so far virtually ignored. It would be impossible for me to comment on everything they cover. I limit myself to what I regard to be the five most important problems.

First, there is the issue of prices. The original Wallich-Weintraub proposal increased taxes on profits of firms with excessive wage increases; prices were not involved at all. However, Arthur Okun suggested that his carrot approach might be expanded to provide reductions of profits taxes for firms with price increases below the average. It is clear from the paper by Dildine and Sunley that any kind of tax penalty or subsidy that depends on a change in average prices of particular firms is simply impractical. All the problems of constructing price indexes would emerge, such as treatment of new products, quality change, and measurement of costs to be passed through, and there is no easy solution to most of them. It would be possible to substitute a limitation on gross profit margins for the penalty on price increases, but this approach has many of the earmarks of a tax on excess profits (penalty on efficiency and increased capital utilization, encouragement of advertising and other unnecessary expenses, and lack of representativeness of the base period), which is anathema for business and Congress alike. I conclude that tax penalties or subsidies based on price changes are unworkable. I leave it to Albert Rees to explain how labor would react to a TIP that applied only to wages and not to prices.

Second, there is the matter of the type of coverage a TIP would entail. The latest available data on the number of business firms in the United States are for the year 1975. About 13 million firms filed tax returns in that year, including 10.9 million sole proprietorships, 1.1 million partner-

ships, and 2.0 million corporations. And there were 0.5 million returns of nonprofit organizations and over 78,000 governmental units. Most of the business firms had no employees; many report no net income; and all but a relatively small number of large businesses do not keep detailed personnel records. Yet, if a tax penalty or tax subsidy is to be designed, the law must be explicit about how every one of these units is to be treated.

Dildine and Sunley state that a penalty would be easier to administer than a subsidy because it would be possible to limit the penalty to large firms; if there are "goodies" to be handed out, it would not be possible to limit eligibility to employees of such firms. But this does not imply that the problems of a penalty can be overlooked. As I shall indicate below, I am not persuaded that it is feasible to measure average wage changes for all economic units in a manner that would be appropriate for a tax-based wage penalty or subsidy.

If the carrot approach were adopted, I assume we would not ask the average farmer, or the average corner drugstore owner, or most self-employed professionals who have a few employees to report man-hours on a tax return. To avoid the administrative problems, the wage subsidy would probably be given to all employees in such establishments and to the owners also. This is not fatal for the wage subsidy plan on administrative grounds, but I wonder what effect the plan would have if a substantial fraction, if not a majority, of all workers received the subsidy whether or not they behaved.

A third issue is the economic unit. The unit for tax accounting purposes is a legal entity which, in our complex economy, often bears little relationship to the unit that enters into wage bargains with its employees. Large corporations generally file consolidated returns that include the operating results of many, but not necessarily all, of their subsidiaries. I assume that the wage behavior of foreign subsidiaries is of little relevance to wage behavior of their counterparts in the United States, so those foreign units would not be covered by the wage subsidy or penalty.

While the foreign subsidiary is the extreme case, there are numerous other instances of branches or subsidiaries located in the United States which, as far as wages are concerned, bear virtually no relationship to one another or to the parent firm. What about the oil firm that owns one of the largest retail and mail-order houses in the country? Or the textile firm that owns a Hollywood film manufacturer? Or the electronics manufacturer that owns a bread manufacturer? If the wage subsidies or pen-

alties of one of these firms depended on the wage bargains of all the other firms included in the consolidated return, labor and management would have no way of making wage decisions in one place unless they knew what the decisions were to be elsewhere. Accordingly, the rules would have to be sufficiently flexible to permit the unit of calculation to be relevant to the wage-setting process. Under wage controls, the business firms themselves made this decision, and I assume the control agency could modify that decision if it were necessary. But for purposes of a wage subsidy or penalty, definite rules would have to be established, either in the legislation or in the regulations, so that labor and management would know exactly which wage bargains were included. If there are any usable guides on how these rules can be written, I am not aware of them.

Once such rules were prepared, it would be necessary to prescribe other rules to make interyear wage comparisons. Dildine and Sunley suggest the range of problems: new firms, mergers, spin-offs, sales of facilities, changes in product mix, and other developments that occur in a dynamic economy. This is what is referred to in the tax lingo as "the excess-profits tax problem": that is, the problem of estimating the tax base when it depends on events and conditions in two or more adjacent years. The decisions made for the excess profits tax in the United States have been the subject of extensive and time-consuming litigation every time the tax was used, and no one on the government or the business side was ever satisfied. I can imagine a set of arbitrary rules that a group of economists or tax administrators might agree to, but that does not mean that Congress would accept such rules. For example, it has been suggested that, for new firms, a base-year wage structure might be constructed from averages for other firms in the same industry. But the only data of this type that exist are those of the Bureau of Labor Statistics, and they could not possibly be applied to a particular firm. In the end, the legislation would be complex and, like the excess profits tax, would impose unforeseen costs on business that would lead to further legislation and litigation to moderate such costs.

The problem of timing a penalty or subsidy is a fourth issue of concern. From the standpoint of administration or compliance, it would be much easier to impose a penalty or provide a subsidy after the end of the accounting period. If the proposal is for a penalty based on profits, it

should be possible to rely on the business firms to take the penalty into account in its wage decisions.

The opposite is true for a subsidy to workers accepting a wage increase below the guideline percentage. To appeal to workers to accept the constraint, the subsidy must be prospective and must be incorporated in the current tax withholding tables so that the workers will have immediate tangible evidence that their disposable income will not be impaired by the policy. (Of course, this would require two sets of withholding tables, but this is only a minor complication compared to the others.)

The basic problem is that labor and management would find it extremely difficult to incorporate a prospective subsidy in their wage bargaining. Unless the bargaining unit were coterminous with the unit for determining the subsidy, no worker or group of workers would know whether the deal they made would actually trigger the subsidy until negotiations are completed with the other bargaining units in the same firm. Management would be in the same situation: how can it be sure that the construction workers will accept a wage increase that, together with the agreement with coal miners, will trigger a subsidy to both groups?

Suppose also that the firm and its workers take a chance and accept wage bargains that result in a wage subsidy effective at the beginning of the firm's taxable year. Suppose that later there is a miscalculation: after the fact, the average wage increase for the firm actually exceeds the guideline. How could the excess wage subsidy be collected? The firm would have no way of collecting from workers who had left, and the workers who remained would be up in arms to find that income already spent was really not income at all. Or the firm might be made responsible, but this could lead to excessive hardship, if not bankruptcy. Alternatively, the government might require workers to make up the excess wage subsidy by reducing their refunds or by increasing their balances of tax due when they filed their returns. To accomplish this, firms would be required to inform their workers if there were excess subsidies in time for them to fill out their tax returns, a requirement that would be highly unrealistic because most large firms take many months to complete their final tax returns. The firm could make estimates, but if these were incorrect, the workers would be even more furious.

I conclude that a penalty on profits based on wage changes is feasible, but it would have to be retrospective. For prospective subsidies to work-

ers, there are numerous pitfalls. Frankly I do not see how the solutions can satisfy labor or management.

A fifth issue is controls versus tax-based incomes policies. I believe it is not productive to argue whether or not TIPs are another form of controls. The questions are which approach is feasible and what are the costs relative to the alternatives?

It is true that a tax-based incomes policy can be disregarded by any firm and its workers. But the rules and regulations must be written to ensure that all economic units in the country understand them and make their decisions accordingly. Even if it is agreed that some of the rules must be arbitrary, I doubt that it would be possible to arrive at such arbitrary rules through the tax legislative process as we know it today.

Under controls, Congress avoids the hard decisions and lets the controlling agency make the arbitrary rules. One reason controls seem to be acceptable is that relatively few firms are ever involved in disputes, whereas a tax penalty or a subsidy would apply to all or a large number of firms, and the perceived hardships and disputes will be numerous. Both controls and tax-based incomes policies lead to capricious results, but I am at a loss to understand why the proponents of the latter believe that their approach would be more acceptable than the other to labor, management, the public, and Congress.

Richard E. Slitor: The sponsors and designers of this panel have singled out for attention one of the most critical problems of our time. In keeping with this objective, the paper by Larry Dildine and Emil Sunley does an efficient job of highlighting and assessing the administrative and compliance aspects of tax-based incomes policies.

My first reaction to their excellent paper was one of discomfiture over the deft way they handled a broader assignment—covering TIP applied both to wages and to prices—than the one that pushed me to write four times as many typescript pages (a paper prepared under other auspices). But this personal reaction was quickly balanced by gratification that their basic conclusion on the administrability and feasibility of TIP applied to wages seems to be not too far from mine.

TIP is designed to help create jobs without inflation. In more exact terms, TIP will aid in the substitution of employment and production growth for small increases in the wages of currently employed people and in the prices of an existing flow of production.

As most of us have come to realize, the Keynesian cornucopia of the early years was part illusion and part the creature of historic circumstance. The blind spots, the oversimplification, and to some degree the vulgarization that occurred are now being corrected. The process of making our macroeconomic models more realistic and reliable must go on.

But in terms of immediate policy, TIP must cope with a stubborn and resistant problem of spiraling costs and prices. To decelerate these spiraling forces effectively, TIP must be constructed carefully to be sturdy, workable, and reliable.

The Dildine and Sunley paper deals with five initial design decisions: the carrot versus the stick approach; the continuous range versus the hurdle format; the temporary versus the permanent TIP; the question of the basic accounting unit—the plant or establishment, the corporate entity or conglomerate, the wage bargaining unit, or other class or sector of employees; and the specification of the nature of the penalty or the reward.

Following the review of initial design issues, Dildine and Sunley devote the major portion of their paper to a helpful and illuminating review of problems and issues in the measurement of wages and wage increases and a counterpart discussion of the more prickly task of measuring increases in price or profit margins. Their canvass of definitional, identification, and quantification problems is impressive and constructive. There is considerable ground to be covered here and that task needs to be worked out carefully, but that does not lead to a conclusion that compliance and administration are overly burdensome.

Dildine and Sunley regard the treatment of pensions as the most difficult problem in the measurement of compensation per hour. This is partly because of the cited problems of actuarial valuation of liberalizing funded plans, which seem to go beyond current concepts of taxable wages or salaries. The employer's contribution would seem adequate to measure the compensation element under prevailing concepts. The difficulty is also attributed to the possibility of liberalizing unfunded pension arrangements when data on benefits currently paid are the only information the tax administrator may have available. It may be necessary to recognize benefits as paid after-the-fact, but gross infringement of guidelines by this approach could be singled out for special treatment—that is, actuarial valuation—if the legalities permit TIP penalization of unfunded

promises of future payment. The pension area presents intellectual problems, but somehow I doubt that pension liberalizations, funded and qualified or unfunded and unqualified, would constitute a massive threat to the workability and economic effectiveness of a TIP applied to wages.

The overall conclusion reached by Dildine and Sunley is balanced and in line with their analysis. However, I feel that the flavor of their concluding comments, particularly with respect to TIP based on wages, is too negative in the light of the practical and technical difficulties they uncovered.

Basically, their rating of TIP from the practical and administrative standpoint is that these problems, while "significant," can be reduced to a manageable size if the scheme is (1) applied only to business taxpayers, (2) limited to wages, (3) implemented with the hurdle or threshold approach, and (4) not applied to small companies. I regard this evaluation as granting a thoroughly passing if not an honorable grade to the Wallich-Weintraub TIP proposal.

The adjective "significant" applied to TIP administrative problems gives pause. Where does it stand in the spectrum of ratings that administrative experts on taxation apply both to various new proposals, plans, and schemes and to existing or even longstanding tax provisions that elicit comment, favorable or otherwise, on their administrative cost and feasibility? What kind of semantic overtones does it carry?

Tax administrators have a fairly wide spectrum of ratings they attach to tax provisions and proposals. These ratings are as follows, on a scale of 1 to 7 in descending order of administrative difficulty: (1) "administrative nightmare," (2) terribly difficult, prohibitively costly, (3) difficult but not intractable, (4) difficult but manageable by capable and experienced personnel, (5) routine, (6) "piece of cake," and (7) almost self-operating: collection is "slick as a whistle."

It is neither frivolous nor cynical to express the conjecture that ratings of administrative difficulty change with the administrator's attitude—spontaneous or inculcated—toward the underlying policy. A policy proposal that is not "sound" or in keeping with the perceived role of tax administration will tend to be given a higher rating on the scale of administrative difficulty.

On the whole, the rating by Dildine and Sunley of "manageable" applied to TIP's administrative and compliance problems would seem to

be rather favorable, subject to the listed structural specifications and interpreted in the light of the somewhat subjective adjective "significant."

One can understand their hesitation about a cost-benefit calculation. This would call for an evaluation not only of TIP's effectiveness but of its benefits in terms of stabilization, employment, and the general welfare of decelerating the wage-cost-price spiral. If TIP has even moderate effectiveness and benefits, the payoff would be enormous in relation to the administrative and compliance costs (a few million dollars) implied in the "manageable" rating assigned to the compensation TIP plan by Dildine and Sunley.

The real issue in a practical evaluation of TIP, particularly if it applies to wages, is not design problems or compliance and administrative difficulties. These can be managed at moderate and acceptable costs. The more difficult question is whether or not the public and sometimes intransigent economic interest groups are prepared to accept action that goes beyond anti-inflation rhetoric. I believe the prognosis will be favorable. The firm, insistent pressure of a genuine economic incentive will be more acceptable and effective and far less administratively complex than a system of rigid, hard-line regulations or controls to decelerate the inflationary spiral.

General Discussion

Donald Nichols observed that the authors had concluded it was administratively more feasible to operate a TIP based on average compensation per man-hour than on weighted wage measures with categories of employees. He asked the proponents of various TIP plans for their reactions to that conclusion of the paper.

In response, Arthur Okun said that he favored allowing firms to select the method they would use—whether it was aggregate compensation or particular classification—but would require them to specify the method in advance. Joseph Pechman objected that it was unrealistic to ask a firm to determine its wage structure so early. But Okun replied that firms need not have foreknowledge of the wage structure in order to choose their measurement basis. He went on to explain that, while he had previously emphasized advance pledges for firms, he felt they should be allowed to

apply for TIP bonuses at the end of the period without a prior pledge, so long as they had already specified the method of computation. Sidney Weintraub said he would support any method of measurement provided that consistency could be assured over time and that his scheme would be applied on an ex post basis. He felt that distorted reporting could be identified by some arithmetic cross-checks, such as keeping an eye on the implied movement of average product per worker.

Franco Modigliani felt that Pechman had exaggerated several administrative difficulties, like the problem of choosing the reporting unit for tax purposes. Modigliani favored allowing the firms to choose the reporting unit and argued that there would be an incentive on the part of corporations to make these as large as possible to allow the maximum scope for maneuver. But Pechman reiterated that it would be difficult to decide who should be penalized if excess wages were actually paid. James Duesenberry suggested that some of the problems in a reward plan might be avoided if the reward came through a rebate after the end of the year rather than in lower taxes withheld during the year. Okun felt that both routes could be kept open by rewarding firms that qualified their workers in advance for the withholding benefits, thereby taking on some risks and administrative burdens.

Nichols noted that there had been little discussion about how the number of hours was to be measured and audited by the Internal Revenue Service. Emil Sunley replied that an arbitrary assumption of 2,000 hours per full-time employee might suffice. Nichols stated that using average hourly compensation would provide an incentive for hiring low-wage workers. Okun agreed but said that this did not bother him. He noted that the ceiling on the payroll tax base now gives firms a marginal incentive to prefer high-salaried workers.

Alan Greenspan said that although he appraised TIP plans to be unworkable overall, the particular problem of measuring wages and hours could be overcome. He expected this to generate a substantial amount of distortion in the reporting of wages to the Internal Revenue Service—perhaps a discrepancy of 1 to 2 percentage points below the figures of the Bureau of Labor Statistics. Others were even more skeptical. Arnold Packer remarked that even defining compensation might be a task comparable to defining income, and it would have to be undertaken in a short period of time. Robert Hall felt that the TIP plan was unworkable because the government could not possibly provide firms with suitable

classification categories, and it would have to accept those devised by the firms themselves. The firms would then have an incentive to juggle with classification methods, whereas the Internal Revenue Service would have the insurmountable problem of ensuring the consistency of the categories over time. He compared this with the difficult problems encountered by the Internal Revenue Service in policing the classes of assets that firms use for depreciation purposes.

Pechman's prediction that a TIP plan would generate a large amount of litigation was endorsed by others. Daniel Mitchell noted that, unlike the controls of 1971–74 in which the Justice Department had been reluctant to go to court without being reasonably certain of success, alleged violators of a TIP plan would frequently appear in the tax courts. Sunley reminded the panel that the Internal Revenue Service only recently closed the last litigation involving the excess profits tax of the Korean War. But Lloyd Ulman pointed out that the threat of complex litigation might induce employers to try to avoid tangles with the government by complying clearly with the standards of a penalty TIP. George Perry commented that the incentives to cheat were different under TIPs with rewards and TIPs with penalties: under the penalty scheme, the firm benefited directly from deceiving the Internal Revenue Service; but under a reward TIP, a firm would be unlikely to risk punishment simply to make its employees better off. Modigliani agreed with Perry that a reward TIP had this advantage, but noted that it had the disadvantage that it could not be limited only to the largest firms. He added that some discussants were mistakenly assuming that firms would try to give workers as much as possible and then would hide the bonuses. In fact, a penalty TIP would assist them by giving them a rationale for resisting higher wage demands.

Other distortions that might be generated by TIP plans concerned some participants. William Poole suspected that, because firms would not be liable for a penalty TIP when they had no profits, firms with cyclical profitability patterns would try to time wage increases in trough periods. Mitchell observed that, in contrast to a controls program that could be introduced by administrative proclamation, the extensive period of debate required for the introduction of TIP by the Congress would provide an incentive for destabilizing large wage hikes to "beat the gun." Mitchell also noted that being involved with a temporary scheme within the Internal Revenue Service would not be an attractive assignment for any of its officials. Thus, like the temporary controls in the 1971–74 period,

TIP would be staffed with the less competent Internal Revenue Service administrators.

Sidney Weintraub said he had been encouraged by Richard Slitor's optimism on the feasibility of TIP. Some slippage and distortions were inevitable; but with experience the administration would improve, and the big prize—full employment—could become a reality. Ulman suggested that the assessments of various participants on the seriousness of the administrative difficulties mirrored their convictions on the importance of the anti-inflationary gains from TIP.