

TAX INCREASES AND THE PRICE LEVEL

By Vito Tanzi

Economists who have received their training in public finance or in macroeconomics in recent decades have learned that inflation can be fought through tax increases or cuts in public expenditure. Keynesian analysis demonstrates how these changes set in motion deflationary forces that put downward pressure on prices. Although Keynesian economics concludes that deflationary fiscal policy can be pursued either through tax increases or through expenditure cuts, the prevalent view among public finance experts has been that tax changes are more efficient. This conclusion is based on the view that the level of public expenditure should be set in relation to (longer-run) social objectives and should, thus, not be changed to accommodate short-run or cyclical considerations.

Tax increases, according to the public finance experts, reduce the disposable income of individuals and, as consumption is assumed to depend on disposable income, reduce consumption. This reduction, through the effect of the multiplier, brings about a magnified fall in national income, which, in turn, puts downward pressures on prices and wages by its effect on the rate of unemployment and the utilization of capital. These deflationary effects of tax increases are the ones that receive most attention. In fact they are the only effects recognized in macroeconomic textbooks. However, it has always been recognized in public finance textbooks that tax changes may, in addition to their inevitable, deflationary effects, also have an impact on prices and on factor supplies. Further, under the stimulation brought about by a renewed interest in supply-side economics and by the high level of taxation, these supply-side effects, especially those related to direct taxes, have in recent years been analyzed more closely than before and have been shown to be more pervasive and significant than previously believed.

The conclusion of this article is that, when both the demand-side (deflationary) effects and the supply-side (inflationary) effects of tax increases are considered, the case of using tax increases to fight inflation appears somewhat weaker than previously believed. This does not mean that this instrument of

economic policy should be abandoned. It does mean, however, that we should search actively for more efficient instruments. In particular, we should pay more attention to expenditure cuts as these may have stronger deflationary effects (through large multipliers) and have weaker effects than taxes on output.

Indirect Tax Effects

Tax increases are likely to bring about higher prices in a number of ways, some of which are more obvious than others. Under the normal assumption of forward shifting, increases in indirect taxes (including those on imports) are likely to have an immediate effect on the cost of living. Whether that initial effect is followed at a later stage by further increases or by declines in the prices of nontaxed products or of productive factors depends on a variety of factors. Let us consider an increase in excise taxes first. As pointed out by Blinder and Solow (1974) and by Brechling and Classen Utgoff (1979), such an increase will reduce the consumers' real income by raising the price of the taxed products, unless their supply functions are completely inelastic. Furthermore, unless the supply functions are completely inelastic, the output of the taxed products will decline. Therefore, even if the money supply has not changed, in the short run the same amount of money will be used to purchase fewer goods, with the implication that the price index will rise.

Consider next an increase in a general sales tax — say, a value-added tax on a retail tax. Again, the initial effect is clearly inflationary, as the tax increase is likely to be shifted forward in higher prices. What happens next depends in part on monetary policy and in part on whether indexation of wages and pensions brings about additional increases. Let us consider one at a time. The initial increase in prices will reduce the real value of the money balances held by individuals. Their reaction is likely to be parallel to that contemplated by the monetary approach to the balance of payments (BOP) when there is a devaluation. Consumers will increase their nominal money balances to try to bring them back to their desired real value, so that sales will fall and unemployment will rise. If the money supply fails to accommodate the fall in output, if wages are flexible downward in the short run, and if wages and pensions are not indexed with a frequent adjustment clause, then wages

will fall and the new equilibrium price level (gross of the tax increase) will be unchanged. But clearly, these are rather stringent conditions.

Direct Tax Effects

Increases in direct taxes are also likely to bring about higher prices in a number of ways. One way is through direct forward shifting. Whether in the short run the corporate income tax, for instance, is or is not shifted forward in higher prices has been a highly controversial question for decades. In general, the degree of shifting may depend on the structure of the market, so that the question can be settled only by empirical studies. The latest of these studies (by J. Melvin in 1979), using an input-output model, concluded that higher corporate income taxes result in significant price increases and that this price effect varies significantly among industries, depending on their capital intensity.

The issue of whether increases in the employer's portion of the social security tax result in inflation has also attracted considerable attention. Some countries have gone so far as to reduce these taxes and replace the lost revenues with other taxes in order to make enterprises more competitive, thus implicitly assuming that the tax is a cost of production that is shifted forward in higher prices. Economic theory has generally suggested that labor will eventually bear the brunt of higher payroll taxes but does not indicate whether it will pay through price increases or through wage restraint. As consumers include not only wage earners but also those living on capital incomes, pensioners, welfare recipients, and so on, it is clear that the burden on labor from higher prices will be different from that due to lower wages. Forward shifting implies that groups other than the wage earners are bearing part of the burden.

Let us consider next income taxes levied on wage earners, as well as the employee's contributions to social security. The standard assumption in the literature on public finance has been that the burden of these taxes falls fully on the wage earners. However, this assumption may be unrealistic under current circumstances. Wage earners may be protected: if inflation causes them to get increases that are totally or partly based on cost of living adjustments, if the tax system is not indexed for inflation, if the wage negotiations are sufficiently centralized,

and if the earners feel that they will not benefit from the higher tax burden, it is reasonable to assume that they will focus their demands on net-of-tax, rather than on nominal, wage increases. This implies that they will demand nominal wage increases that exceed the increase in the cost of living index, setting in motion a wage-tax spiral.

Considerable evidence from wage negotiations in several industrial countries indicates that wage earners have, in fact, at times bargained on the basis of net-of-tax wages; further, some governments have attempted to influence the outcome of wage negotiations by offering to lower income taxes in exchange for lower wage demands. Some impact of taxes on wages has also been found in econometric studies for Canada, the Netherlands, the United Kingdom, and the United States (Tanzi, 1980a).

Finally, there are the effects of taxes on capital incomes. No theory has yet been developed about the possible forward shifting of tax increases on such types of income as capital gains, rents, professional incomes, and profits of unincorporated businesses. On the taxation of interest incomes under inflationary circumstances, some work has shown that, if interest rates are fully taxable, the Fisherian theory that the nominal interest rate will equal some real rate plus the expected inflation rate cannot be right. In such a case, the nominal interest rate will have to increase by more than the expected inflation rate (Tanzi, 1976). As interest payments are important costs of production, an increase in their rates prompted by higher taxes would be inflationary and might, in addition, have price effects that extend beyond their direct cost effects. For example, they might be taken as the harbinger of future price changes and therefore might affect inflationary expectations. Or they might attract capital inflows, thus expanding the money supply. However, as yet, empirical tests based on historical data have failed to demonstrate conclusively that taxing interest rates is inflationary (Tanzi, 1980b).

Effects on Labor, Saving

The indirect effects of tax increases include their influence on the supply and allocation of factors of production. If, as a result of taxation, the supplies of factors of production are reduced or if they are allocated less efficiently, production costs will increase and will be passed on in higher prices. Although

the evidence is not as clear-cut as desirable, it supports the conclusion that an increase in taxes may reduce the supply of labor and, possibly, even that of saving, and cause prices to rise. Furthermore, if the tax increase comes in the form of high marginal rates, the negative effects may have more substantial incentive effects.

There has been a great deal of interest in recent years in the response of the labor supply as income tax rates increased. Economists have never developed an unambiguous answer as to whether high income taxes lead to either higher or lower work effort. A tax increase often affects both the average and the marginal tax rate. An increase in the average rate is supposed to induce a greater work effort as labor works more to offset its loss in income due to the tax; by contrast, the argument runs, an increase in the marginal rate will induce workers to choose more as leisure becomes cheaper. On the assumption that a larger labor supply will bring about a higher output and that more output will lower prices, the price effect coming from this channel cannot be determined. However, if tax increases affect marginal rates more than average rates, it is argued, the net effect on the change could be a decline in the labor supply or in the work effort, implying a rise in prices because of the fall in output.

The ambiguity of the results has often been used to justify the conclusion that the effects of high tax rates on the labor supply can be ignored. If high marginal tax rates induce some people to work longer hours and others to work fewer, these two effects could approximately cancel each other out. Why then be concerned? This conclusion is, however, likely to be too sanguine; studies have at times shown that while lower-income individuals have generally been induced to work harder by tax increases, high-income individuals have been induced to work less. Several econometric studies, too, have found that, while the elasticity of prime-age male workers with respect to tax changes is low, the elasticities for married woman, younger workers, and older workers (about one half of the labor force in the United States) have been found to be quite substantial (OECD, Rosen, Fullerton). Until recently, the large forecasting models had ignored these potential differential effects. Recently these models have also found significant negative tax effects (Eckstein).

Economic theory identifies the same dual effects of taxation

on saving as it does on the supply of labor — with the same result, that the outcome cannot be predicted. If a tax increase reduces the rate of return on saving, two results are possible. Individuals may consume more and save less, as consumption becomes cheaper than saving, and thus reduce the growth rate of potential output. However, if they aim to accumulate a given level of assets by the time of retirement, a reduction in the rate of return to their savings might stimulate them to save more, in which case potential output will grow faster.

In view of the empirical importance of a clear answer to this question, it is somewhat surprising that greater efforts have not gone into attempts to measure the net effect of changes in the rate of return to savings on the volume of saving. Perhaps there are two explanations for this neglect. In Keynesian economics, savings is a leakage from the income stream and the interest rate is no longer one of its direct determinants. The second is that, until recently, the real rate of return to savings net of taxes had generally been relatively stable and positive in the United States and other industrial countries. However, in the 1970s, with the advent of inflation and without adjustments in the tax systems for the inflation-induced distortions of tax bases, the real net-of-tax rate of return to financial savings often became negative for most savers. Whether as a direct result of inflation or of this dramatic reduction in net-of-tax real rate of return, the rate of savings of U.S. households also fell to very low levels.

This fall has renewed interest in the relationship between the rate of return and the volume of saving, but research as yet provides no unambiguous results for the industrial countries. In developing countries, however, financial reforms aimed at increasing the rate of return to saving have often found substantial responses from savers, in part because interest rates are often negative before the reform. As with respect to the labor supply, it can be concluded that the empirical evidence is ambiguous: tax increases that reduce the rate of return to saving would, at best, have no effect on the supply of savings; at worst, they would have a significant negative effect. To the author's knowledge, no serious evidence exists to indicate that tax increases that reduce the rate of return stimulate savings.

Allocative Effects

The previous discussion followed the traditional emphasis

on the effect of taxes on the size of the supply of labor and of saving. But neglecting the allocational effects of taxes in this way may cause us to miss the main point. That taxes bring about reallocations and often misallocations of resources is well known. The allocation of labor is generally recognized to be responsive to taxation, as labor shifts from highly to less taxed working arrangements. There is also strong evidence that high tax rates have brought about a flourishing underground economy where incomes are not reported at all to the tax authorities (Tanzi, 1980c). Further, executives have at times refused promotions when these would have generated increases in after-tax incomes deemed too low to compensate them for the extra effort. And high taxes may also determine whether some individuals remain productive members of society or become welfare recipients. The strength of these effects depends on the level of the marginal tax rates and on the length of time they have been applied. If tax increases are considered permanent and are associated with high marginal rates, they may, even in the short run, bring about misallocations that are likely to reduce output and increase prices.

The pervasive effects of high marginal taxes on the allocation of savings may be even more serious than those on labor. Labor is constrained by such factors as personal relationships, relocation costs, seniority rights, and pension arrangements; none of these constraints exist for savings, which can be reallocated far more quickly and impersonally than labor. Even if it may not be clear whether high taxes reduce the rate of saving or not, it is clear that they affect its allocation if they are associated with high marginal tax rates on nominal incomes that may have been distorted by inflation and that they almost surely bring about distortions in the economy and, through these, price increases. Often savings are withdrawn from their socially most efficient uses and are, rather invested in activities or assets (such as houses, expensive cars, or jewelry) that may be far less productive but where the returns are essentially untaxed.

From the point of view of price stabilization, the worst possible scenario would be one in which increases in tax rates resulted in small increases, or even in falls, in tax revenue. This discussion has indicated that increases in the rates of various taxes may 1) reduce the supply of labor, 2) reduce the rate of saving, 3) distort the allocation of labor and saving, 4) increase the rate of evasion through the stimulation of under-

ground economic activities or through direct underreporting of income, and so on. If, in addition, the increase in the tax rates leads the government to expect higher revenues, and it thus increases public expenditures, the net effect could be a larger fiscal deficit.

The likelihood of the above scenario is a matter of heated — and currently relevant — controversy. In general terms, there seems to be general agreement that an increase in the rates can be expected to increase revenue when the level of taxation and the tax rates are relatively low; however, a further increase in the rates could bring about lower tax revenues when the level of taxation and the marginal tax rates are high, although such a reduction could be delayed.

This discussion indicates that, under realistic, present-day circumstances, tax increases may themselves generate additional inflationary pressures which could, in part or totally, neutralize the deflationary effects of tax increases. Therefore, it must be concluded that this instrument for pursuing the objective of price stabilization has lost some of its sharp cutting edge. The implication of this conclusion is not that tax increases should never be used to fight inflation, but, rather, that we should be aware of the limitations of this instrument and recognize that other instruments could often be more efficient than taxes.

Apart from monetary policy (that is, the control of the monetary aggregates), two fiscal instruments that deserve attention are “cuts in public expenditure” and “tax-based incomes policy.” A few remarks on these may not be out of place. In general, cuts in public expenditure, dollar for dollar, are likely to result in far greater deflationary effects than tax increases as 1) the multiplier for public expenditure is higher than for taxes and 2) in only a few cases would expenditure cuts result in direct price increases. Therefore, a reduction in the fiscal deficit resulting from expenditure cuts may have a greater deflationary impact than an equal reduction in the fiscal deficit resulting from tax increases. Furthermore, as inflation is no longer a purely cyclical phenomenon, and as it is often the result of high public expenditure, this policy acquires greater legitimacy than in the past.

In recent years, some economists have suggested that inflation should be fought with “tax-based incomes policies.” The basic idea is that greater-than-average increases in profits, wages, or value-added would be taxed at higher rates. This “penalty

tax” would supposedly discourage companies from charging higher prices or granting higher wage increases. This approach is untried and is still too new to be assessed. Many experts remain sceptical about the effectiveness of these “tax-based incomes policies.” Others question their administrative practicality. However, they deserve to be studied and, perhaps, even tested. They should not be rejected until they have been proven ineffective or impractical.

BOOK REVIEW

HELENE CARRERE D'ENCAUSSE*Confiscated Power: How Soviet Russia Really Works*
Harper & Row, New York, New York, 1982

"In the end, what comes out of an analysis of the Soviet system is its anachronism and its contradictions," writes the author in *Confiscated Power: How Soviet Russia Really Works*. "The Soviet system has remained identical to itself for sixty years. Power remains in the hands of a coherent ruling group, supported by bureaucratic apparatuses; it still has control over all national resources and is thereby the veritable owner of the state. From the top to the bottom of the pyramid of power, privileges are distributed according to the position held. The basis of power in this system is very specific. It is in fact not tied to the possession of capital but derived from the simple fact that one is located within the sphere of power."

After presenting the historical background of the system's reactions and adaptations to the differing leadership styles and goals of Lenin, Stalin, Khrushchev and Brezhnev, d'Encausse examines the effects of power in Soviet society. She begins with a discussion of the centers of power and follows the path of this power into the everyday life of Soviet citizens. Power flows from the Party to the bureaucracies. Through *nomenklatura* (the right to approve appointments), the Party insures that those rising into managerial positions will hold the correct attitudes. "The way in which political culture is brought to bear on society, far from changing the Soviet system of values, has only reinforced its essential characteristics," writes d'Encausse. "No authoritarian political system in this century has invested more than the Soviet system in this 'manufacture of souls.'"

In fact, people in the Soviet Union are socialized into the political culture from earliest childhood. In addition to their schooling, in which they are first exposed to the collective attitude of mind, membership in youth organizations is virtually mandatory. After graduation, socialization into the political culture continues: counting personnel in all the educational