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Federal Taxation
THE COST OF CAPITAL

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I am delighted to be here today and to participate in this discussion of the tax structure and the cost of capital. Our objective in this discussion is to explore the consequences with respect to the cost of capital of a change in business taxation. The tax revision which has been attracting increasing interest in recent years in the substitution of a value-added tax for the present corporation income tax. I shall confine my discussion to the implications of that substitution.

Permit me to make unmistakably clear at the outset, that my remarks on this subject stem strictly from my academic interest in taxation. The corporation income tax and the value-added tax cast up a rich inventory of the types of questions and problems the economic analyst dotes upon. I trust you will find that focus in my discussion. I need hardly add that the views expressed in my discussion are my own and are not to be attributed to any of my past or present associations.

The initial question we must deal with is: What is the matter with the present way of taxing businesses, more specifically, the corporation income tax?

The corporation income tax is essentially an excise tax on equity capital used in the corporate sector of the economy. To grasp this characterization and its implications, we may compare it with a payroll tax levied only on payrolls of corporations.

Suppose that we did, indeed, have a corporation payroll tax levied at a high flat rate on the full amount of the wages and salaries of corporate employees and paid by the corporate employer. The tax would, in the first instance, increase the cost to the employer of using labor service. Given the demand for the output, the increase in the cost of such services resulting from the imposition of the payroll tax would initially compel the corporate employer to reduce the amount of labor services employed. His reason for doing so, of course, is simple: to maximize the profits of the corporation, he will use that amount of any factor of production the last unit of

which adds just as much to his total revenues as it does to his total costs. If the cost of the factor of production is increased (as in this example the cost of labor services is increased by the payroll tax) while other things, including the conditions of demand are unchanged, less of the factor will be used. If those providing the labor services would promptly accept a reduction in pay rates equal to the amount of the tax, so that the net cost to the employer were unchanged, no decreases in employment in the corporate sector would result. But employees are not likely promptly to accept wage and salary cuts, and a retardation of employment in the corporate sector will occur.

Employees who can no longer find jobs in the corporate sector will seek employment in the unincorporated sector, where the tax, by assumption, does not apply. But with an in-crease in the amount of labor services offered in the unincorporated sector, rates of remuneration will have to be lower than they otherwise would have been. If indeed they do decline, at least relative to what they otherwise would have been, employers in the unincorporated sector will have an incentive to use relatively more labor services in relation to other factors of production. If there is some constraint, preventing this reduction in wage and salary rates, unemployment will increase relative to what it would have been.

Meanwhile, back in the corporate sector, employers will also attempt to rearrange production methods so as to substitute some other factors of production for the labor services which have been made relatively more costly by the payroll tax. This rearrangement is likely to take some time but will eventually occur. It will not, of course, go to the point where the substitution is complete.

Finally, the outcome of these adjustments will be a lower volume of output in the corporate sector and higher prices for this output than would otherwise be the case. By the same token, output in the unincorporated sector will be greater and prices of that output lower than would otherwise be the case. If we assume that the allocation of the economy's productive resources was optimum before the tax was imposed, in the sense that each factor's contribution to the total valuable output of the economy as a whole was greater than it would have been in any alternative use, the shifts in resources resulting from the tax means that the economy will be operating less efficiently than before.

The corporation income tax offers a close analogy to the case just sketched. just as the payroll tax in our example is an excise tax on the returns to labor services and increases their cost in the corporate sector, so the corporation income tax is essentially an excise tax on the returns to equity capital and increases the cost of its use. In effect anyone with an equity interest in the corporation will require a higher pretax rate of return on his capital so invested in order to maintain his after-tax rate of return, or else he will have an incentive to shift some of his capital to other uses to which the tax does not apply. If the corporation is to prevent this decline in after-tax rate of return, it must set a higher pretax target rate of return on its use of capital

resources than it would in the absence of the tax. In doing so, it reduces the volume of investment projects it will undertake. The tax, in other words, directly increases the cost to the corporation of using capital services.

The consequences are much the same as in the preceding case. Less capital is employed in the corporate sector than would otherwise be the case and more in the unincorporated sector. With any given technical relation between output and the use of capital and other production inputs and with any given conditions of demand for this output, the higher pretax target rate of return requires that less capital is employed. Capital, therefore, is reallocated from the corporate to the unincorporated sector. As this shift occurs, the pretax rate of return on capital rises in the corporate and falls in the unincorporated sector. The shift continues until after-tax rates of return have returned to the relationship between the two sectors that had prevailed before the tax was imposed.

Similarly, greater amounts of other factors of production *relative* to the amount of capital are used in the corporate sector, while in the unincorporated sector, the ratio of capital to other factors is greater than would otherwise be the case. Also, since capital and other resources are not perfectly substitutable, total production capability is less in the corporate sector and greater in the unincorporated sector than would otherwise be true. And again, corporate output is lower and its prices higher, while unincorporated output is greater and its prices lower than would otherwise be the case.

In addition to its *direct* effect in raising the cost of capital, the corporation income tax also *indirectly* increases this cost. Since the tax does not apply to the returns to debt capital, it impels a shift from equity to debt financing. But the greater the amount of debt in the firm's capitalization, the greater is the risk to be borne by those owning the equity interest in the firm. The greater this risk, the higher is the rate at which future income streams allocable to the equity interest are discounted. This discount or capitalization rate, of course, is a financial measure of the cost of capital, the equivalent of the target rate of return referred to a moment ago.

To recapitulate, then, the corporation income tax distorts the allocation of capital and other resources between the incorporated and unincorporated sectors of the economy. Specifically, it leads to (1) less total capital employed in corporate business and more in unincorporated businesses; (2) less labor and other productive services employed in the corporate sector and more in the unincorporated sector; (3) less capital in relation to other factors of production in the corporate sector and the reverse in the unincorporated sector; (4) lower output in the corporate and greater output in the unincorporated sector; and (5) higher prices for corporate output and lower prices for the output of unincorporated businesses, than would result for any given level of national income in the absence of the tax.

In addition to these distortions, the corporate income tax discriminates between corporations using the same amount of resources to produce the same amount of output on the basis of the amount of equity capital they employ. Moreover, as between any two firms using the same amount of equity capital, the tax bears more heavily on the one which uses its resources more efficiently, i.e., conducts its operations so as to yield a profit. In substantially competitive markets, profitability is a good proxy, in both the private and social sense, for the efficiency with which a business uses the agencies of production at its command. The corporation income tax, in this sense, penalizes the efficient firm. And by virtue of the broad distortions in resource allocation already discussed, the tax reduces the overall efficiency of the economy.

Having roundly scored the tax, fairness requires reference to its virtues. The major justification which might be offered for the tax is that in its absence the corporation would be a tax haven, sheltering the individual shareholder from the application of the individual income tax to his pro rata share of the corporation's earnings, to the extent these earnings were retained by the corporation. If one accepts this view, however, the corporation income tax properly should be regarded as a withholding tax on individual shareholders, who should be required to include in their income their share of the company's pretax earnings, compute their tax on this amount, and claim a credit for the tax paid by the corporation. While this proposal has frequently been advanced, it has not gained widespread acceptance for many reasons, among them the complications for enforcement which might result. In any event, under the present arrangements, the corporation income tax is inadequate and crude as a withholding tax.

Those who favor an active fiscal policy for economic stabilization purposes sometimes point to the sensitivity of corporation income tax receipts to fluctuations in business activity as an important advantage of the tax. It surely must be conceded that the corporate income tax displays this built-in flexibility. Even if one were to accept the desirability or efficacy of a flexible fiscal policy for economic stabilization, however, it is difficult to perceive that the corporation income tax makes a significant contribution in this respect.

It goes almost without saying that my assessment of the incidence and effects of the corporation income tax is not universally accepted. The major opposing view is that the tax is "passed forward" directly to consumers in the form of higher prices. Underlying this view is the assumption that the taxed companies enjoy something called "market power" and can do something called "administer prices," so that if the tax is increased, the company can directly increase the prices of its products by the amount of the tax, presumably with no loss in total revenue. This could only be so if either (1) the taxed company had been underpricing and rationing its products before the tax or the tax increase, or (2) the monetary authorities sufficiently increased the stock of money so that the resulting expansion of total demand validated the price increases. In the latter event, of course, it isn't a case of the tax being passed forward but of an inflationary monetary policy.

It is interesting, however, to note that both this view and the one I've developed lead to one common result, i.e., prices of corporate output are higher by virtue of the tax than they would otherwise have been. The difference between these views, however, is fundamental. According to my analysis, the tax comes to rest primarily on the returns to capital throughout the private sector of the economy. In the opposing view, the tax is "borne" by consumers.

The significance of this difference with respect to the effects of the tax on the cost of capital should be quite clear. In my analysis, the tax raises the cost of capital in the corporate sector and reduces it in the unincorporated sector, and by distorting the allocation of capital and impairing the overall efficiency of its use, the tax raises the effective cost of capital for the private economy as a whole. In the opposing view, on the other hand, the tax has no effect on the cost of capital.

What might we expect if the value-added tax were substituted for the corporation tax?

The concept of value added, while quite simple, is an unfamiliar one in the United States. It may be readily perceived in either of two equivalent ways. Value added may be measured by the difference between the total receipts of an enterprise and the amount of its purchases (inclusive of tax) from all other enterprises. Equivalently, value added may be defined as the sum of all payments made by the enterprise to the factors of production it employs. In either case, value added is the total income generated by, Le., arising in, the enterprise.

There are three principal variants of a value-added tax but the distinctions among them, dealing with the treatment of capital expenditures, need not detain us. For purposes of this discussion, I shall assume that capital outlays would not be deductible from the base of the value-added tax but that depreciation deductions would be allowed. Assuming the tax were imposed at a flat rate, this variant of the value-added tax is, in plain terms, a proportional income tax on the net income of all factors of production. In another version of the tax, no deductions for capital would be allowed; the base of the tax would, in effect, be private gross national product. A third version of the tax would allow deductions for capital outlays in the year they were made. This version corresponds with the value-added tax in effect in France and to be adopted elsewhere in the Common Market. There are significant advantages on both analytical and administrative grounds in this last version. My choice of the national income version for this discussion rests primarily on expositional considerations.

While exceptions might surely be made, the tax is generally conceived as applicable to the value added of all enterprises in the private sector irrespective of the legal form of organization, type of activity, or status under the present tax law. The base of the tax, therefore, would be several times larger than that of the corporation income tax, and to produce the same amount of revenue, the value-added tax would be imposed at a much lower rate than that of the corporation income tax. In 1967, for example, net value added in the private sector of the United States

economy (but excluding private households) was roughly $560 billion. Corporate profits that year were roughly $82 billion. Federal corporate profits tax accruals were about $31 billion. This amount of revenue could have been raised by a value-added tax of about 51/2 per cent.[1]

By its very nature, the value-added tax is neutral with respect to the choice in any enterprise between the use of debt and equity and between the employment of capital and other factors of production. The corporation income tax, on the other hand, discriminates against equity capital and against capital services as opposed to the other agencies of production. On the basis of my analysis, the substitution of the value-added tax for the corporation income tax, therefore, would lead to greater use of equity capital and less reliance on debt in the corporate sector. It would also lead to a lower proportion of capital to non-capital resources in that sector, while the reverse might be true in the unincorporated sector. This would result from the fact that the cost of capital services would decline for corporations and rise for unincorporated enterprises, relatively speaking. More agencies of production of all kinds, moreover, would be employed eventually by corporations and less by unincorporated enterprises than would be the case under the corporation income tax. Overall, all production resources would be more efficiently used. As a consequence. the cost of capital for the entire private sector would be lower than under the corporation income tax.

These results could not be expected to materialize overnight. They would involve substantial shifts in the use of agencies of production throughout the private sector of the economy, both between the corporate and unincorporated sectors and among industries as well. Such shifts in resources, particularly of real capital, take time to effect. It would be many years before these adjustments were substantially effected.

It is not merely coincidental that the interest in the value-added tax in the United States has increased as our balance-of payments situation has apparently deteriorated. Under the prevailing interpretation of the GATT rules, the corporation income tax may not be rebated with respect to exports. A value-added tax, on the other hand, is not treated as a direct tax under GATT rules, even though, as I've attempted to show, at least one version of the tax is a proportional net income tax. Border adjustments of the tax are, therefore, permitted. Specifically, the tax may be rebated with respect to exports and imposed on imports. It is, accordingly, deemed to be neutral with respect to the international flow of goods, an assumption which I shall consider at a later point in this discussion. Its adoption in the United States, it is maintained, would improve our competitive position and bolster the trade account in our balance of payments. The fact that European Common Market Countries have agreed on the tax as a central feature of their respective tax structures in line with their program of tax harmonization has afforded additional impetus for its adoption in the United States. It should be noted in passing that in France, which

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[1] Calculated on the basis of national income account measures of corporate profits and corporate profit taxes.

has had a value-added tax for a number of years, and very likely in other Common Market Counties, the value-added tax is a substitute for sales or turnover taxes, not for corporate profits tax.

What might we expect of the substitution of value added taxation, with border tax adjustments, for the corporate income tax with respect to our balance-of-payments situation? The answer to this question depends in part on the degree of specialization of our exports and imports.

Assume first at one extreme that a substantial proportion of U. S. exports are relatively non-specialized in the sense that exported goods are also produced for U. S. domestic markets, face close substitutes in international markets, and represent a relatively small fraction of the total of such goods traded in these markets.

Given this condition, the substitution of the value-added tax, with border tax adjustments, for the corporation income tax should result in a prompt improvement in the balance of trade. This improvement would result, on the export side, from the fact that export business would become more profitable because of the general exemption of exports from value-added tax. This increased profitability would induce a shift from domestic to foreign sales by the producers of those goods which are not highly specialized to the one or the other market. Please note that to the extent our exports encounter close substitutes and are a relatively small fraction of total sales in the world market, U. S. export producers would have no reason to cut the prices of their exports. Increased volume, not price cuts, therefore, would be the route to increased export sales revenue.

On the import side, the tax substitution would result in a relative price advantage for import-competing goods domestically produced. This would follow from the fact that import prices would rise by the amount of the value-added tax imposed on them as they entered the U. S., while prices of domestically produced goods would remain unchanged. The latter assumption depends on no change in monetary policy coincident with the tax substitution. The effect on the total value of imports would depend on the elasticity of U. S. demand for imports with respect to their prices, which in turn would depend on the degree of specialization of imports.

If we assume, at the other extreme, that both our exports and imports are highly specialized, the substitution of value added for corporation income taxation will require a longer period of time to affect the trade account in our balance of payments. As in the former case, the rebate of the value-added tax on exports would increase the profitability of export business. Unless there were excess capacity in export production, however, there would be no reason to reduce export prices. Increases in export volume would occur only as additional production capacity was built up, a time-consuming process. Much the same would be true on the import side. The imposition of the tax on imports would raise their prices relative to domestically produced goods and afford,

thereby, an incentive for some reallocation of production capability to import competing goods. Again, this reallocation would require time to effect.

Much quicker effects on the capital account in the balance of payments might be anticipated as a result of the substitution of a value-added tax for the corporation income tax. As indicated before, the value-added tax base is many times larger than the corporate profits tax base and consists of all income generated in the firm, not merely the return to equity capital. The substitution, therefore, would reduce the effective tax rare on the returns to equity capital in the corporate sector and increase thereby the after-tax rate of return to equity. This would make equity investment in U. S. corporations relatively more attractive, imposing a check on the outflow of investable funds and drawing in foreign investment This effect, moreover, might well occur with little or no delay.

While this view of the balance-of-payments effects of the substitution of value-added for corporate income taxation is not universally held, there is a substantial consensus that some improvement would result. The question is the weight to be given to balance of payments considerations in evaluating this substitution.

On the one hand, it may be argued that our balance of payments problems are attributable far more to the deficiencies of the international payments mechanism than to our domestic policies. If one accepts this contention, one might well maintain that good public policy calls for directly addressing this problem rather than resorting to palliatives, which may well involve significant economic distortions. In this view, what is called for is neither an interest equalization tax nor foreign direct investment controls which may temporarily ease the balance of payments strains, but a basic revision of the international exchange system. By the same token, substituting the value-added tax for the corporation income tax would not be deemed to be appropriate merely on the basis of the balance of payments effects. There is, in my judgment, much to be said for this view.

On the other hand, there are substantial merits in a value-added tax, as my discussion has indicated. If one set of collateral benefits from substituting this tax for the corporation income tax is a more nearly neutral tax environment with respect to both the domestic and international allocation of resources, one could hardly decry any balance of payments improvement which might result.

Much of the improvement in the balance of payments on trade account is generally attributed to the border tax adjustment feature of the value-added tax. The question arises whether such border tax adjustments are indeed appropriate.

With respect to the national income version of the tax, in which depreciation is deducted from gross value added, a strong argument may be made that they are not. In this version of the

tax, the tax base for any enterprise fundamentally is a measure of the amount of the resources available in the economy which the enterprise claims for its use. Assuming that the payments made by the enterprise to the factors of production it employs are a good approximation of the amounts they might have produced in alternative uses, this version of the value-added tax implies that the enterprise is taxed for the costs it imposes on the rest of economy. It would follow, then, that the tax should be paid irrespective of the disposition of the output of these factors of production, i.e., without reference to whether this output is sent abroad By the same token, no tax should be applied to goods produced abroad and entering the country. In short, no border tax adjustments should be allowed. As a corollary, no U. S. value-added tax would be applicable to output U. S. companies or their subsidiaries produced abroad.

Without border tax adjustments, this version of the value-added tax would still have substantially the same effects on international capital movements. On the other hand, there would likely be no significant consequences for the trade account.

The consumption version of the value-added tax, in which capital outlays are deductible where made, is fundamentally a tax on the use of income for consumption purposes. On this basis, border tax adjustments are appropriate, indeed are called for, since goods leaving the country necessarily cannot be available for consumption therein, while those entering will ultimately bear the tax only to the extent that they become the objects of consumption outlays.

There are, of course, numerous issues of tax policy raised by proposals for this change in the Federal tax structure. As with any new tax, problems of administration and compliance would arise until both the Internal Revenue Service and taxpayers became familiar with the tax. This consideration suggests that it might be wise to effect any substitution of value-added for corporation income taxation gradually over a number of years.

The change in the tax base would alter the distribution of tax liabilities and would raise numerous questions about the fairness of the new tax. As indicated, the variant of the value-added tax I've discussed is essentially a proportional tax on the net incomes of all factors of production. For those who are convinced that the present corporation income tax is a progressive tax, a conviction for which the empirical evidence is yet to be assembled, the substitution would appear to be regressive. If the consumption variant were adopted in lieu of the corporation income tax, the substitution would appear to many to be even more regressive. Assuming this to be true does not preclude making the necessary compensatory adjustments in the distribution of individual income tax liabilities. Incidentally, many of those who would be troubled by the assumed distributional consequences of the shift are also troubled by the so-called "loopholes" in the income tax base, many of which would be automatically plugged by a value-added tax. In any event, we need to know much more than we now do about the ultimate burden of the corporation income tax by level of income before we can offer any but the most tentative observations about the shift in tax burdens resulting from the substitution.

In every area of tax policy, there are opposing considerations with respect to any proposed tax change, requiring careful, objective and scientific evaluation. My discussion today is intended not to *resolve* the issues in the field of business taxation, but to suggest the broad outlines of the type of investigation which might cast up relevant answers.