The Demise Of Corporations In Harberger's Incidence Model

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The Demise Of Corporations In Harberger's Incidence Model

Abstract
I do not dispute Harberger's findings regarding the effect of a tax on capital used in the production of one product (group). However, I do dispute the validity of the implicit assumption that such a tax has the same effect as a tax on corporate income, given the assumptions of his model. In a setting where product (vector) X is produced by corporations while product (vector) Y is produced by unincorporated enterprises, it is useful to distinguish between three different taxes, the short run incidences of which are all on corporations producing X when the tax is imposed:

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THE DEMISE OF CORPORATIONS IN
HARBERGER'S INCIDENCE MODEL

by

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The general equilibrium model used by Harberger\(^1\) to analyze the incidence of the corporate income tax has been usefully extended to other taxes and other economic problems and now is a key component of current incidence theory.\(^2\) This note argues that the incidence of a corporate income tax in the model specified by Harberger is quite different from what Harberger concluded. Without a modification of the assumptions of the model, to provide an explanation for the continued existence of corporations after a tax is levied on their income, the model implies that a tax on corporate income results in the dissolution of corporations and a nullification of both the impact and the incidence of the tax.

Harberger divided the economy into two sectors. One sector, comprised of corporations, produces commodity \(X\), and the other sector, comprised of unincorporated enterprises, produces commodity \(Y\). Production in both sectors occurs with production functions which are homogeneous of degree one.

Although the corporate income tax is a tax on the return to capital in the corporate sector, Harberger represented the tax, in his mathematical formulation, as a tax on capital used in the production of the product \(X\), which was being produced exclusively by corporations prior to the imposition of the tax. The short run effect is that the return to capital used in the production of \(X\) is reduced by the amount of the tax. In the long run capital flows from the production of \(X\) into the production of \(Y\) until the after-tax returns to capital in the two sectors are equalized.\(^3\) The result is that
capital bears at least a large share of the long-run incidence of the tax.

I do not dispute Harberger's findings regarding the effect of a tax on capital used in the production of one product (group). However, I do dispute the validity of the implicit assumption that such a tax has the same effect as a tax on corporate income, given the assumptions of his model. In a setting where product (vector) X is produced by corporations while product (vector) Y is produced by unincorporated enterprises, it is useful to distinguish between three different taxes, the short run incidences of which are all on corporations producing X when the tax is imposed: (1) a tax on capital used in the production of X, (2) a tax on the net income of firms producing X, and (3) a tax on the net income (return to capital) of corporations. In the Harberger model, these three taxes are equivalent prior to adjustments to the taxes, but the reactions to the three taxes are different. Taxes (1) and (2) will produce equivalent effects, but Harberger's implicit assumption that taxes (1) and (3) produce equivalent effects is not valid. There is an important difference between (a) a tax on capital used in producing one particular (group of) product(s) and (b) a tax on capital in one particular form of business organization. The impact of the former can be reduced only by decreasing capital used in producing the taxed products, but the impact of the latter may be reduced or eliminated by altering the form of business organization, without an alteration of commodities produced. The corporate income tax is a tax on capital income received through one particular form of business organization.
Corporate capital cannot avoid the tax by moving from, e.g., automobiles and steel into real estate, agriculture, and miscellaneous repair services, but capital held by corporations may avoid the tax if the owners are able to dissolve the corporation and produce the same products in unincorporated firms, without any loss of efficiency.

Given Harberger's assumption that the production function for product(s) X is homogeneous of degree one, the effect of a corporate income tax is quite different from the adjustment to a tax on $K_X$, accurately described by Harberger. The most profitable reaction for corporate owners after a corporate income tax is imposed would be to dissolve the corporation and continue producing X in individual proprietorships and/or partnerships not subject to the tax on corporate income. Since Harberger assumes no economies of scale in X, this adjustment can occur in the long run without any loss of efficiency.

Harberger's conclusions regarding corporate income tax incidence hold only if there is some solid link between the corporate form of business organization and the production of a particular set of products. Harberger's model contains no explanation for such a link, and contains no explanation for the continued existence of corporations following the imposition of a tax on their income. It is likely that the link between corporations and particular products in the U.S. economy is economies of scale, and the limited liability and perpetual lives of corporations, which give them advantages in amassing and maintaining the large amounts of capital required to realize scale economies. However, as McLure has noted, the model has not yet been extended to incidence analysis in the presence of scale economies. Although indefinite economies of scale would be troublesome, one can vindicate Harberger's conclusions by modifying
his assumptions to allow for a limited range of scale economies in X production, beyond which constant returns prevail. In this setting, corporations could not be dissolved without loss of efficiency, and they would adjust to the tax, in a range of constant cost, according to Harberger's analysis.
NOTES


4. Harberger, (*op. cit.*), p. 216 and p. 231), identifies agriculture, real estate, and miscellaneous repair services as the components of the non-corporate sector.