Tax Policy
and Small Business Financing

Thomas S. McCaleb*

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*Associate Professor of Finance, Florida State University. I am greatly indebted to Diana L. Puglitt for exceptionally competent research assistance and to Robert Berney for comments.

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TAX POLICY AND SMALL BUSINESS FINANCING

At the Closing Session of the White House Conference on Small Business, the delegates voted on 60 recommendations which had emerged from a series of regional caucuses and workshops held prior to and during the Conference. Of the 60 recommendations put forward, no less than 11 concerned some aspect of taxation. Each delegate then voted for the 15 recommendations which were deemed to be the most important. The results were tallied, and the recommendations were ranked in order of votes received. In the final ranking, the tax system was the subject of fully half of the first 10 including the top 2 and 3 of the top 5. To those attending all the conference sessions (state, regional, and national), the most important way to promote capital formation for small business is through tax relief measures. The overwhelming significance of tax policy for small business to which this ranking gives evidence is further corroborated by the attention devoted to taxation in hearings before Congressional committees over the past three decades and in numerous studies of small business completed during the same period.

The view often expressed by small businessmen, and clearly reflected in the tax policy recommendations of the White House Conference, is that the current tax system contains numerous provisions which are detrimental to the continued good health of the small business sector of the U. S. economy. A survey of small businesses in a 1958 report on Financing Small Business found many complaints about taxes by small firms, but a later paper by Peter Mieszkowski for SBA's The Vital Majority found little basis for the view that taxes on small business are particularly onerous. The objective in this paper is to pursue this issue in depth, identifying those features of the tax system which differentially affect small business and attempting to assess their
impact on the allocation of resources between small businesses and larger enterprises.

The paper is divided into four major sections. In the first, the existing empirical evidence is examined to determine whether or not small businesses in general bear a heavier tax burden than larger firms and to obtain some indication of the magnitude of the tax burden on all businesses, small or large. The second section concerns the effects of the tax structure on the willingness of investors to bear risk, particularly the risks associated with investment in small enterprises. In the third section, the effects of taxation on the major sources of financing for small business investment are considered, while the fourth section treats the special problems of small businesses arising from estate taxation. In concluding the paper, a number of areas in which additional research seems warranted are reviewed.

Summary of Major Conclusions:

(1) The best available evidence shows that the tax burden on all incorporated businesses is substantial, amounting to one-fourth to one-third of the net income of the firm at a minimum. The evidence does not provide unambiguous support, however, for the proposition that small corporations bear a greater effective tax burden than larger corporations. For the smallest size firms (less than $1 million in assets), the tax system is progressive. For all but the largest firms (more than $100 million in assets), tax rates are progressive or approximately proportional. The evidence on the largest size firms is in conflict. Some studies show tax rates continuing to rise, while others show tax rates falling at the top. This evidence must be interpreted with great care, however, because:
(a) in inflationary times, average effective tax rates based on accounting data tend to understate the true effective tax burden on all businesses, large and small;

(b) larger firms may have greater market power than smaller firms, and therefore, be able to shift a greater portion of their effective tax burdens to other sectors of the economy, and;

(c) the greatest number of small businesses are not subject to corporate profits taxation so that calculations of the effective tax burden on corporations may not accurately reflect the effective tax burdens imposed on all small businesses.

(2) The present tax system limits the availability of allowances for losses incurred on investments. Furthermore, due to the progressive rate structure, the government's share in losses is less than the government's share in gains. For these reasons, the existing tax system tends to discourage risk-taking as compared to a proportional rate tax with complete loss allowances. Therefore, to the extent that investments in small businesses are in fact, or are perceived as being, riskier than investments in otherwise identical larger firms, the tax system discriminates against small business investment. The empirical significance of these effects has not been determined.

(3) While progressive taxation tends to discourage risk-taking in the aggregate, it favors investment in smaller firms whose incomes are subject to tax at lower rates than are imposed on the incomes of larger firms. Thus, the increased riskiness in small business investment may be offset by a higher net-of-tax rate of return. In this way, progressive taxation may counteract a bias against small business investments arising
from capital market imperfections. The extent of this effect is unknown, and furthermore it is not clear that this is the most effective technique for offsetting the bias or even that it is economically efficient to do so.

(4) The existing tax system includes several features which tend to favor precisely those sources of investment funds—retained earnings and debt—on which small businesses rely most heavily. The double taxation of dividends in the dual system of individual and corporate income taxation in the U.S. favors the use of debt rather than equity in the financing of investment. The preferential tax treatment accorded to capital gains effectively subsidizes all firms which retain significant portions of their current earnings for reinvestment. On the other hand, the double taxation of dividends discourages firms from adopting the corporate form of organization and thereby obtaining the benefits of limited liability. While this reduces the cost of externally-supplied capital to smaller firms which rely more heavily on debt, it may also increase the riskiness of small business investments. Similarly, because capital gains are taxed only upon realization, the preferential tax treatment discriminates in favor of using available funds for the expansion, consolidation, or acquisition of existing firms and against the funding of new, usually smaller ventures. Although studies of the causes of mergers among and acquisitions by firms abound, few have reached definitive results and none provide satisfactory evidence on the magnitude of the influence of tax variables. The net effect of taxation on the availability of investment financing for small businesses remains an open question.
An estate consisting largely of stock in a closely-held firm confronts two problems—(1) a need for liquidity with which to satisfy an estate tax liability, and (2) uncertainty about the valuation of its stock for tax purposes. These two problems may provide incentives for the owners of small businesses to sell to or to merge with larger enterprises. The significance of these effects is unclear, and not all small businesses are equally subject to such tax pressure. Certain relatively stringent conditions must be met before liquidation for tax purposes becomes a threat to an estate. This restricts the number of firms for which this is a real problem. Moreover, the estate tax laws recognize the incentives to merge which they create and therefore incorporate several provisions designed to mitigate these adverse effects. While tax problems may influence the decision to sell or merge, the non-tax motivations more often than not dominate the decisions actually made.

**The Tax Burden On Small Business**

Does the tax system impose too great a burden on small business? Many small businessmen clearly believe that it does. They have consistently testified to that effect in numerous appearances before Congressional committees over the past three decades, and their belief that the tax burden on small business is onerous is reflected in the deliberations of the recent White House Conference on Small Business. The question really has two components which need to be disentangled and separately addressed since each component is important in its own right.

One aspect of the question concerns the absolute burden of taxation on business in general, small and large. To determine whether or not too heavy a burden is imposed on the business sector, one must compare the burden of
taxation on business with some criterion of a fair or equitable distribution of taxation among various tax-paying entities. While economic analysis can be employed to determine the size of the tax burden on business, it does not permit the derivation of standards of equity. Rather, equity in taxation can be assessed only on the basis of some individual or collective value judgements. Because it is not the purpose here to make such judgements, no conclusions will be drawn as to whether or not the absolute burden of taxation on business is too great.

The second component of the issue centers on the burden of taxation on small business relative to that imposed on larger enterprises. This aspect of the tax burden question is quite susceptible to economic analysis. Several measures of the tax burden on business have been proposed, including tax payments per dollar of sales, per dollar of net worth, and per dollar of profits. Tax liability per dollar of sales is clearly irrelevant to the problem of financing small business. Few, if any, investors are interested in a firm's sales; rather, investors seek to maximize the return on their capital. The return to investors depends upon profits and bears no particular relationship to sales. Indeed, many firms have intentionally restricted sales in order to reduce costs and boost profits. If consistently measured, taxes per dollar of net worth and taxes per dollar of profits should exhibit the same pattern. Net worth as reported on firms' balance sheets, however, is contaminated by the failure of generally accepted accounting principles to make appropriate adjustments for inflation. For this reason, economic analysis typically focuses on taxes per dollar of profits—the average effective tax rate. The remainder of this section will review the available evidence on the relationship between the average effective tax rate and firm
Evidence on Effective Tax Rates: The average effective tax rate imposed on a firm is determined by dividing the firm's tax liability by an appropriate measure of the profits which give rise to that tax liability. Differences in the results obtained can arise from differences in the definition of firm income, from differences in the temporal allocation of tax liability and taxable income, and from differences in data sources. The specific points of variance in studies of effective tax rates include (a) the treatment of foreign source income and of foreign and domestic tax payments on that income, (b) the treatment of intercorporate dividends in the firm's income, (c) the treatment of certain special deductions, particularly those having to do with depreciation and depletion, in the measurement of the firm's income, and (d) the treatment of the tax saving from loss carrybacks and carryforwards in measuring the firm's tax liability.

Data available on the personal income tax are insufficient to permit a clear separation between a given individual's business income and income from other sources or to disentangle income from several different businesses. Thus, the existing studies have concentrated on the calculation of average effective tax rates on the profits of corporations. The raw data for these calculations can be obtained from any one of three sources: (1) corporate financial reports; (2) the National Income and Product Accounts; or (3) Statistics of Income which are based on the tax returns actually filed by corporations. The last of these is preferred because it provides better information with which to ensure a matching of a given year's profits with the tax liability to which those profits give rise independently of the year.
in which payment is actually rendered, and the most recent studies have used this data source.

The evidence from the calculation of effective tax rates shows the tax burden rising with firm size up to $1 million in assets. Above $10 million in assets, the rate structure becomes proportional except for the largest size firms. In every case, the smallest firms (those under $1 million in assets) confront a lower effective tax rate than firms above $1 million in assets. Although the absolute level of taxation and the relative differential between small and large firms varies from one study to another, the pattern is the same.

An early assessment of the relationship between tax rates and asset size is reported in the 1952 Final Report of the House Select Committee on Small Business. The before-tax and after-tax rates of return, defined as the ratios of before-tax profits to stockholders' equity, were determined for two asset size classes using data obtained from corporate financial reports. From these rates of return, shown in Table 1a, the corresponding average effective tax rates can be computed. The results appear in Table 1b. They suggest that the tax burden imposed on firms in the larger size class is on the order of twenty percent greater than the burden on the smaller firms, based upon the average of the tax rates paid by firms in each size class in the two quarters for which rates of return are reported.

These data are by no means conclusive since they provide information on only two asset size classes and are, moreover, based on corporate financial reports rather than on corporate tax returns. Two recent studies, based on tax return data, provide complete estimates for all firm sizes, and these studies confirm the pattern of generally higher tax rates on larger firms. A
Table 1a: Rates of Return to Corporations by Asset Size, 1952

<table>
<thead>
<tr>
<th>Rate of Return</th>
<th>Asset Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less Than $250,000</td>
</tr>
<tr>
<td>1951:1 Before Tax</td>
<td>23.2</td>
</tr>
<tr>
<td>After Tax</td>
<td>14.4</td>
</tr>
<tr>
<td>1951:3 Before Tax</td>
<td>17.4</td>
</tr>
<tr>
<td>After Tax</td>
<td>9.1</td>
</tr>
</tbody>
</table>


Table 1b: Effective Corporate Tax Rates by Asset Size, 1952

<table>
<thead>
<tr>
<th>Asset Size</th>
<th>Effective Tax Rates (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than $250,000</td>
<td>42.9</td>
</tr>
<tr>
<td>$250,000 - $1m.</td>
<td>51.5</td>
</tr>
</tbody>
</table>

Source: Calculated by the author
paper prepared by the U. S. Treasury at the request of the Joint Economic Committee and the Senate Select Committee on Small Business utilizes data from returns filed by corporations in 1972, and the analysis is based on the provisions of the Internal Revenue Code in effect in that year.\(^8\) The results are shown in Table 2.

The average effective corporate tax rate on domestic source income for all asset size classes is 37.8 percent, substantially less than the statutory corporate income tax rate. The rates show significant variability among the different size classes, however, rising to a level in excess of 40 percent for firms with assets of $5 million to $1 billion, but falling to 37.7 percent for the largest firms (those whose assets exceed $1 billion in value). This decrease from 40.7 percent in the preceding size class to 37.7 percent "... is accounted for entirely by the dominance of utilities and of companies with mineral income in the largest size class" (p. 16). If worldwide taxes, foreign and domestic, are related to worldwide income, the effective rate of tax on the largest size class becomes 46.2 percent, with no significant changes in the rates imposed on the other size classes. Thus, whether one computes effective rates on a world-wide basis or only for domestic taxes and domestic source income, smaller firms generally appear to bear an equal or lighter tax burden than larger firms.\(^9\)

Further confirmation of this result is provided in an even more recent study by Randall Weiss presented at the Lawrence N. Woodworth Memorial Symposium sponsored by the National Tax Association-Tax Institute of America.\(^{10}\) Like the earlier Treasury study, Weiss relies on actual tax return data as reported in *Statistics of Income*. The data are taken from 1974 corporate tax returns but are then used to estimate corporate profits and tax liability in 1979. Thus, the effective rates calculated are estimates of the rates which
<table>
<thead>
<tr>
<th>Asset Size</th>
<th>Number of Firms</th>
<th>Effective Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-firm Average</td>
<td>871,548</td>
<td>37.8</td>
</tr>
<tr>
<td>Less Than $50,000</td>
<td>300,435</td>
<td>20.6</td>
</tr>
<tr>
<td>$50,000-$250,000</td>
<td>357,571</td>
<td>25.4</td>
</tr>
<tr>
<td>$250,000-$1m.</td>
<td>161,992</td>
<td>34.4</td>
</tr>
<tr>
<td>$1m.-$5m.</td>
<td>41,856</td>
<td>39.8</td>
</tr>
<tr>
<td>$5m.-$10m.</td>
<td>4,430</td>
<td>40.8</td>
</tr>
<tr>
<td>$10m.-$25m.</td>
<td>2,692</td>
<td>41.2</td>
</tr>
<tr>
<td>$25m.-$50m.</td>
<td>1,029</td>
<td>41.2</td>
</tr>
<tr>
<td>$50m.-$100m.</td>
<td>579</td>
<td>40.8</td>
</tr>
<tr>
<td>$100m.-$250m.</td>
<td>485</td>
<td>40.8</td>
</tr>
<tr>
<td>$250m.-$500m.</td>
<td>199</td>
<td>41.5</td>
</tr>
<tr>
<td>$500m.-$1b.</td>
<td>128</td>
<td>40.7</td>
</tr>
<tr>
<td>More than $1b.</td>
<td>152</td>
<td>37.7</td>
</tr>
</tbody>
</table>

Source: U. S. Treasury Department, Office of Tax Analysis, Effective Income Tax Rates Paid by United States Corporations in 1972, May 1978, Table 1, p. 44.
prevailed under 1979 law. The adjustments to reported income and to tax payments differ somewhat from those made in the Treasury study, but the two are nonetheless quite similar.

The effective rates here, shown in Table 3, are lower than those in the earlier study for every size class, with an overall average tax rate of 30.9 percent. Except for the smallest class (less than $25,000 in assets), progression characterizes the rate structure for all firms up to $2.5 million in assets. From $2.5 million to $100 million, effective tax rates are approximately proportional. Once again, the effective rate falls off for the largest firms, but this is at least in part accounted for by the fact that a higher-than-average proportion of the income in this class is earned by firms in the utility and transportation industries. The firms in these industries face a much lower-than-average tax rate because of the special tax treatment accorded them. Most of the other industries with effective rates below the overall average—agriculture, construction, and services, for example—have low rates precisely because the typical firms in these industries are of smaller-than-average size.

The increase in average effective corporate tax rates as the size of the firm increases, in part, reflects the progression inherent in the statutory tax rates. It has been argued, however, that many of the special deductions and credits included in the tax system to encourage or discourage certain business activities are of greater benefit to large firms than to smaller enterprises. Many of these "tax subsidies" are related to the use of capital, and since small businesses are typically believed to be more labor intensive (and hence less capital intensive) than larger firms, it would not be surprising if this were true. If, indeed, the special provisions tend to be of relatively less importance to smaller businesses, the degree of progression
**Table 3: Effective Corporate Tax Rates, 1979**

<table>
<thead>
<tr>
<th>Asset Size</th>
<th>Effective Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-firm Average</td>
<td>30.9</td>
</tr>
<tr>
<td>Less than $25,000</td>
<td>18.9</td>
</tr>
<tr>
<td>$25,000-$50,000</td>
<td>4.7</td>
</tr>
<tr>
<td>$50,000-$100,000</td>
<td>13.9</td>
</tr>
<tr>
<td>$100,000-$250,000</td>
<td>14.8</td>
</tr>
<tr>
<td>$250,000-$500,000</td>
<td>19.6</td>
</tr>
<tr>
<td>$500,000-$1m.</td>
<td>26.0</td>
</tr>
<tr>
<td>$1m.-$2.5m.</td>
<td>32.5</td>
</tr>
<tr>
<td>$2.5m.-$10m.</td>
<td>36.2</td>
</tr>
<tr>
<td>$10m.-$25m.</td>
<td>35.0</td>
</tr>
<tr>
<td>$25m.-$100m.</td>
<td>35.2</td>
</tr>
<tr>
<td>More than $100m.</td>
<td>31.9</td>
</tr>
</tbody>
</table>

*Source: Randall D. Weiss, "Effective Corporation Income Tax Rates," *National Tax Journal*, 32 (Sept. 1979), Table 1, p. 387.*
exhibited by the effective tax rates calculated in the studies reviewed above would be less than the degree of progression which has been legislated in the statutory rate structure.

A study commissioned by the Small Business Administration has examined the relative value to small and large businesses of a number of these special provisions. The authors concluded that, "On the whole...the federal business income tax incentives favor the largest firms which comprise the smallest percentage of total firms over smaller firms which comprise the majority of all firms" [Page 51]. Unfortunately this study, while based on the 1974 Statistics of Income data, suffers from errors both in its conception and in its execution. A better study of the effect of the special tax provisions on the progressivity of business income taxation is not currently available. Weiss, however, has calculated the impact of the investment tax credit alone on effective corporate tax rates by asset size of firm, and where the SBA report finds that the reduction in rates due to the tax credit rises as firm size increases, Weiss finds just the opposite to be true.

Caveats in the Interpretation of Effective Tax Rates: The data on the relationship between effective tax rates and firm size must be interpreted with some caution in drawing conclusions about both the absolute burden and the relative burden of taxation. Three major caveats apply in the interpretation of this evidence. First, there are reasons for believing that the average effective tax rates as calculated understate the tax burden imposed on all businesses, large and small, particularly during inflationary times. Second, the true burden of a tax on business is not reflected by the average effective tax rate if the tax is shifted from the firm to its
customers in the form of higher prices charged or to its suppliers in the form of lower prices paid. Finally, average effective corporate tax rates do not accurately reflect the burden of taxation on small business since relatively fewer small businesses than large are taxed as corporations. Each of these points will be reviewed in turn.

The argument that effective rates of corporate income tax calculated from the Statistics of Income understate the true burden of taxation on corporate source income has been made in a recently published paper by Martin Feldstein and Lawrence Summers. This understatement arises first of all because of the failure to take into account the additional personal income tax liability imposed on the corporation's bondholders and shareholders. While interest payments on corporate debt are untaxed at the level of the firm, they are taxable under the personal income tax when received by bondholders. Shareholders pay both personal income tax on dividends received from the corporation and capital gains tax on profits retained in the firm, at least to the extent that the retained earnings are reflected as changes in the market value of the firm's shares. A true measure of the tax burden on corporate income must therefore include the tax paid directly by the bondholders and shareholders as well as the tax paid by the firm.

An additional source of understatement of the burden of taxation by effective corporate tax rates is the failure of generally accepted accounting principles to adjust a corporation's taxable income to compensate for the effects of inflation. In a period of inflation, tax accounting rules generate measures of corporate profits which exceed the firm's real economic profits. This arises primarily from the use of historic cost as a basis for the calculation of depreciation and from the inclusion in profits of increases in
the value of inventories held by the firm even when these increases are no more than sufficient to compensate for the inflation. Because accounting profits exceed real economic profits and because the firm is taxed on its accounting profits, the average effective tax rate determined from tax return data as reported in *Statistics of Income* is less than the burden of tax imposed on the firm's real economic profit.

Feldstein and Summers calculate average effective tax rates on corporate source income for each of the years 1954 through 1977 inclusive after making adjustments for these factors. Their results for four selected years are presented in Table 4. Thus, the effective corporate income tax rate calculated by Feldstein and Summers relates the corporate tax liability to the firm's net profits corrected for the impact of inflation on depreciation and inventory gains. The total tax burden includes the corporate tax and the additional taxes paid by shareholders and creditors on dividends, real retained earnings, nominal capital appreciation, and interest income. These figures, as expected, show a total tax burden on corporate source income which exceeds the corporate income tax alone by some 50 percent on average. Unfortunately, no data are presented which indicate how these total tax burdens vary by asset size of firm or how the differential between the total tax burden and the average effective corporate tax rates might vary by asset size of firm.13

While the effective corporate tax rates calculated earlier may understate the total tax burden on corporations, as argued by Feldstein and Summers, their estimates of both corporate tax rates and total tax burden on corporate source income may overstate the burden of business taxation on profit recipients if firms are able to shift a portion of the tax to their customers.
Table 4: Effective Corporate Tax Rates and Total Tax Burdens Adjusted for Inflation, Selected Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Corporate Tax Rate (%)</th>
<th>Total Tax Burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>51.6</td>
<td>63.5</td>
</tr>
<tr>
<td>1972</td>
<td>38.0</td>
<td>58.0</td>
</tr>
<tr>
<td>1974</td>
<td>56.0</td>
<td>94.9</td>
</tr>
<tr>
<td>1977</td>
<td>42.5</td>
<td>66.3</td>
</tr>
</tbody>
</table>

or to the suppliers of inputs to the firm. The ability to shift a tax in
general depends upon the elasticity of demand for the firm's output, the
elasticities of supply of the various inputs to the firm's production process,
and the ease with which the firm can substitute among these inputs.

Traditional economic theory implies that a tax on profits of a firm which
sells its output and purchases its inputs in a perfectly competitive market
cannot be shifted in the short run. The tax will instead reduce the rate of
return on investment in the firm exactly in proportion to the firm's tax
liability. In this event, the true economic burden of the tax on the firm's
owners or shareholders can be measured by the average effective tax rate
calculated in the studies reviewed above, with appropriate adjustments as
described. In the long run, the lower net-of-tax rate of return will reduce
investment. This results in a smaller capital stock, a lower marginal value
product, and lower rates of return to cooperating inputs. In this way, a
portion of the tax is shifted through a long run adjustment process from the
firm's shareholders to other input suppliers.

Empirical studies of tax incidence have found the extent of shifting of
profits taxes to vary from almost none to over 100 percent in the short run. Shifting could occur if firms have unused monopoly power, for example, so that
they are, prior to imposition of the tax, not maximizing profits.
Alternatively, if the tax is imposed only on a portion of the economy's total
supply of capital, shifting could occur as capital moves from taxed to untaxed
forms of investment. This is particularly important with respect to the
corporate income tax. The rate of return on capital invested in the corporate
sector is reduced by the tax. In response capital is withdrawn from the
corporate sector and reinvested in non-corporate enterprises. The increased
supply of capital to the non-corporate sector reduces the rate of return there
until net-of-tax rates of return in the two sectors are equalized. In this way a portion of the corporate income tax is shifted away from corporations and the burden is placed on the owners of unincorporated enterprises.\textsuperscript{15}

These results are significant not only for assessing the absolute burden of taxation on all business but for assessing the relative tax burden on small businesses as well. If larger firms are more likely to possess some degree of monopoly power than small businesses, then on average the demand for the output of the larger firms would be more inelastic than the demand for the output of small businesses. The available evidence indicates that this may be the case. Several of the empirical studies of profits tax incidence have determined that the extent of forward shifting is in fact greater for larger firms.\textsuperscript{16} This suggests that, while the true tax burden may be exaggerated by the average effective tax rates reported earlier, the differential between large and small businesses is also overstated. Furthermore, the non-corporate sector of the economy includes a disproportionately greater number of small firms. In this event, the calculated average effective tax rates understate the tax burden on small businesses, and hence overstate the differential in the true tax burden imposed on large relative to small businesses.

The average effective tax rates presented in the studies cited earlier apply only to firms in the corporate sector of the economy and do not reflect the burden of taxation imposed on unincorporated enterprises. This is the third reason for interpreting these data with caution since, as just noted, the greatest number of small firms are found in the non-corporate sector. Moreover, many small corporations are taxed under the provisions of Subchapter S of the Internal Revenue Code as if they were unincorporated. Hence, average effective rates of corporation income tax do not reflect the tax...
burdens imposed on these small corporations. Presumably, the tax burdens which they bear are less than the data indicates; otherwise, they would always elect to be taxed as corporations. For unincorporated firms, however, no conclusions can be drawn concerning the direction in which the true tax burden might deviate from the calculated average effective rates of tax on the net income of corporations.

Summary: On balance one concludes that the tax burden on all incorporated businesses is substantial, amounting to one-fourth to one-third of the net income of the firm at a minimum. However, the best available evidence does not support the hypothesis that smaller firms are taxed relatively more heavily than larger firms. The empirical studies clearly suggest that the average effective tax rate on businesses with less than $1 million in assets is less than the average effective rate on larger enterprise although the differential is perhaps not as great as the data alone suggest. Above $1 million, the evidence shows tax rates to be progressive or approximately proportional for all but the very largest firms. One must be cautious in drawing conclusions from these studies because of the distorting impacts of inflation on the underlying accounting data, because of differences in the abilities of firms of different sizes to shift tax burdens, and because of the under-representation of small businesses among incorporated firms.

The Impact of Taxation on Risk-Taking and Its Effects on Small Business

There is a presumption that investment in small business is riskier, or at least is perceived by investors as being riskier, than investment in larger firms. The tax system may affect this relative riskiness of investments in different size firms in two ways. First of all, even in the absence of
taxation, the risk of investment in small business may differ inherently from that in larger enterprises for a variety of reasons. In this event funds will be allocated among firms of all sizes so that the gross rate of return to capital invested in smaller firms exceeds the gross return on capital invested in larger firms by an amount which is just sufficient to compensate for the differential risk. In other words, while gross returns will vary among firms in inverse proportion to asset size, the risk-adjusted rates of return on all size firms will be equal. The introduction of a system of income taxation may affect the supply of capital to some firms relative to others, then, by altering the willingness of investors to bear risks. The pre-tax risk-adjusted rates of return will no longer be sufficient to maintain the allocation of investment funds among the different size firms. If the tax system discourages risk-taking, for example, then it will provide an incentive for investors to divert funds away from small business investment which they perceive as being riskier in favor of investment in larger firms which are perceived as being less risky.

Secondly, the tax system may in and of itself increase the relative riskiness, real or financial, associated with investments in smaller firms. There is no universal agreement on a single appropriate measure of risk, but a common measure is the variance of the stream of returns expected from the investment. Income taxes in general will reduce the expected value of the returns, but they may also alter the variance. If the effect of the tax is to increase the variance of returns from smaller firms relative to large, then the tax system has created a risk differential associated with asset size where none previously existed or has widened a pre-existing risk differential. Again, this would in all likelihood generate an incentive for a reallocation
of investment funds from the now-riskier small business sector to larger, relatively less risky, enterprises.

In this section the effects of taxation on risk-taking and its implications for financing small business are considered. The existing state of knowledge about the impact of taxation on investment in risky ventures is quite inconclusive, depending upon the particular form of investors' preferences with respect to risk, on the rate structure of the tax system, and on the availability and extent of allowances for losses incurred. This literature will be reviewed first, and then an attempt will be made to draw some conclusions regarding the tax system's effect specifically on the riskiness of small business investments.

The Effect of Income Taxation on Risk-Taking: An early analysis of the effect of an income tax on the willingness of investors to bear risk was undertaken by E. D. Domar and R. A. Musgrave. They considered a proportional rate tax with full loss offset. Thus, an investor who earns a positive return pays a positive tax while an investor who incurs net losses receives a rebate from the Treasury equal to the product of the loss and the tax rate. Suppose that the individual has a fixed amount of wealth which he can allocate in whatever proportions he desires between a riskless asset yielding no net return and a risky asset offering a positive expected return. Given Domar and Musgrave's somewhat unusual measure of risk, the proportional income tax with complete allowance for losses may increase the proportion of wealth held in the form of the risky asset. That is to say, the imposition of the tax actually increases the amount of risk-taking by risk averse individuals. Later studies have validated this basic result using an alternative expected utility maximization
model in which the appropriate measure of risk is the statistical variance of the distribution of returns from the portfolio.  

This behavior can be explained by reference to the substitution and income or wealth effects generated by the tax-induced change in the rate of return on the asset. A decrease in the rate of return can be interpreted as a reduction in the reward to the investor for the bearing of risk. With a smaller reward, the investor is less willing to undertake risk, and hence is led to substitute more of the riskless asset for the risky asset. On the other hand, a lower rate of return also reduces the expected net-of-tax income from any given portfolio. In an effort to recoup some of this loss in potential income, the investor is motivated to increase his holdings of the risky asset relative to the riskless, zero-return asset. Whether on balance the investor increases or decreases the proportion of his portfolio which is held in the form of the risky asset depends upon which of these two effects is greater.  

The significance of the assumption of full loss offset for the Domar and Musgrave result can now be made clear. With complete allowance for losses and a 50 percent tax rate, the government takes one-half of all net gains from the investment, thus reducing the expected return by a like percentage. On the other hand, the government also absorbs one-half of any net losses. Hence, the dispersion of the possible returns from the investment is, like the expected return, reduced by 50 percent. The degree of risk associated with any given net return is unchanged by the tax so that the substitution effect is neutralized. This leaves only the income effect which induces a net increase in risk-taking.  

Without a full allowance for losses, including cash payments from the Treasury whenever necessary, the substitution effect is no longer neutralized,
and the net effect of the tax on risk-taking again depends on the relative magnitudes of the substitution and income effects. Whatever the net effect, it is clear that a tax system with full loss offset will be more favorable to risky investments than will a tax system which permits only partial offset or none at all. Even with full loss offset, the impact of the income tax on risk-taking will depend upon the income and substitution effects if the tax rate structure is progressive rather than proportional. An investor's income will be lower, other things equal, if he incurs losses than if he earns a positive net return. With a progressive income tax, the marginal tax rate will also be lower when losses are incurred. The government's share in an investor's losses, then, will be less than its share in his gains. Thus, a progressive income tax is less favorable to risk-taking than is a proportional rate tax, and in this respect the progressive rate structure is similar to less-than-complete loss offsets.

In general, then, no definitive conclusions can be drawn from the existing literature about the effects of taxation on the willingness of investors to bear risks. Virtually no empirical research has been done on this question. Moreover, little or no empirical research has been undertaken which would identify the form of a typical investor's preferences with respect to risk, and without knowledge of preferences, it is impossible to estimate the relative magnitudes of the substitution and income effects.

Although some implications of all this for small businesses will be noted below, their very tentative nature should be kept in mind given the paucity of firm evidence on which they are based.

**Effects on the Riskiness of Small Business Investments:** The U. S. individual and corporation income taxes are characterized by progressive rate structures
and by limitations on allowances for losses. Hence, as compared to proportional rate taxation with full loss offset, these taxes have an unfavorable impact on the willingness of investors to bear risks, and therefore tend to divert investment funds away from the inherently riskier small business sector. Furthermore, the particular form which the loss offset provisions take tends to increase the risk differential which separates the smaller firms from larger enterprises.

Loss offsets under the existing tax system are restricted in several ways. No payments are made by the Treasury to firms incurring net losses. Instead, net operating losses must be offset against income derived from other business or non-business sources. In the absence of sufficient alternative income against which losses may be offset, the loss may be used to reduce the firm's tax liability in the three prior tax years (loss carryback) or, if this is insufficient, the loss may be carried forward and offset against the firm's tax liability in up to ten future years. Because of discounting, the carryforward provision reduces the value to the firm of each dollar of loss allowance below one dollar.

These restrictions are less likely to be binding on larger firms than on smaller businesses. Larger firms are more likely to be diversified, with other lines of business producing income against which the losses from any one line of business can be offset. In contrast many small firms are single-line businesses. Larger firms are also more likely to be well-established with sufficient positive net income in prior years to absorb the losses incurred in any one tax year. On the other hand, smaller firms, especially new ventures, may have insufficient prior year net income to fully utilize the loss carryback provisions. Even the loss carryforward allowance may not permit the
smaller firm to offset all of its net operating losses. In addition, smaller firms are more likely to have to resort to the less valuable carryforward allowance than are larger enterprises. All in all, then, one expects that the limitations on loss allowances are more significant for small businesses than for large so that the risk of small business investments is increased relative to that of large business investments for any given expected return. This provides further incentives for investors to reallocate funds away from the small business sector in favor of large firms.

The limited loss offset provisions can also affect investment decisions within the firm. Because the smaller firm is less likely to be able to fully offset the potential losses against other income, any investment project with a given real risk will have a lower expected return if undertaken by the smaller firm than if it were undertaken by a larger firm. Thus, some projects will be undertaken only by larger businesses which will therefore grow in size relative to small businesses engaged in the same activity.20

For those firms facing progressive tax rates, the perverse effects on investment arising from the limited availability of loss offset provisions are at least in part mitigated by the progressivity. Whereas the limitation on loss offsets increases the riskiness of small business investment relative to investment in larger firms for a given gross-of-tax return stream, the lower statutory tax rate on small business income partially compensates by increasing the net-of-tax profits expected to accrue to the smaller firm from a marginal dollar of investment relative to its larger counterpart. The effectiveness of lower tax rates as a counterweight to limited loss offsets is illustrated by the hypothetical example in Table 5. Suppose there are two firms, each contemplating undertaking a given investment. The distribution of
Table 5: Illustration of the Effects of Loss Offsets and Tax Rates on Net Profits

<table>
<thead>
<tr>
<th>Possible Net Incomes</th>
<th>Profits After Tax</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Firm A (t=.5)</td>
<td>Firm B (t=.5)</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>$1000</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>500</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-250</td>
<td>-125</td>
<td>-250</td>
</tr>
<tr>
<td>-500</td>
<td>-250</td>
<td>-500</td>
</tr>
</tbody>
</table>

Source: Calculated by the author.
expected gross-of-tax profits from the investment is shown in Column (1) with each profit level assumed to be equally probable. In column (2) the possible net-of-tax profits to Firm A are given, assuming that Firm A pays tax at an effective rate of 50 percent but also can fully offset any losses incurred against other income. Firm B is assumed to have no other income against which losses can be offset. If Firm B pays tax at the same 50 percent rate as Firm A, its possible net-of-tax profits from the given investment are shown in Column (3). The absence of allowances for losses available to Firm B reduces the expected return on the investment to zero compared with an expected return to Firm A of $75. On the other hand, if Firm B pays tax at a lower rate, say 25 percent, then the expected value of the profit from the investment, listed in Column (4), would be $75, equal to the anticipated profit for Firm A, even without any allowances for losses.

Even though graduated taxation may to some extent compensate for the adverse impact of limited loss allowances on the riskiness of small business investment, it is not necessarily the most efficient technique for doing so. Other possibilities include extension of the carryback and carryforward provisions to additional years or even direct payments from the Treasury whenever losses exceed income. However, the reduced tax rates on the income of smaller firms may play an additional role in compensating for some perceived inherent greater riskiness of small business investment, particularly investment in new ventures, a differential risk which arises from imperfections in capital markets and is independent of the tax system. These imperfections in capital markets, if they exist, will increase the cost of capital to small firms above that confronted by otherwise identical larger firms, thereby resulting in a reallocation of investment funds away from the
small business sector toward larger enterprises. By taxing the income of small business at a lower rate, the expected return on small business investment can be increased relative to the return on investment in large businesses by enough to offset the bias in the cost of capital.

There are two difficulties with an argument along these lines for graduated business taxation. Again, it is not obvious that reduced tax rates for small businesses are the most efficient means of compensating for a capital market bias against investment in new firms or investment in new projects by existing small firms. In part this is because the subsidy inherent in the reduced tax rates is paid only after the investment has occurred. Its value to the investor is reduced by the deferral. One suggested alternative to graduated business income tax rates would be a credit against the personal income tax liability of an owner-entrepreneur for any current investment in a small business. Similarly, to encourage outside capital, a credit might be allowed for investment by individuals other than owner-entrepreneurs supplying venture capital and for investors in closed-end mutual funds engaged in supplying venture capital. This kind of subsidy would be more directly targeted at new ventures than is the graduated rate tax.

A second difficulty with the preceding argument for reduced tax rates on small firms arises from the fact that imperfections in capital markets may reflect financial or other non-production inefficiencies of small business as an organizational form. The conditions necessary for perfect capital markets are:

(1) no transaction costs, perfectly divisible and marketable assets, and no constraining regulations;

(2) perfect competition in all product and securities markets;
(3) information costlessly and simultaneously obtained by all individuals;

(4) rational utility-maximizing individuals.

Seldom if ever are these conditions likely to be completely satisfied so that capital market imperfections exist for both large and small firms. However, it is argued that the imperfections are more serious for smaller firms, particularly if it is relatively more difficult for lenders to obtain and assess information about their financial positions or if smaller firms confront higher costs for capital market transactions than do large firms.

If indeed information costs or capital market transaction costs are higher for small firms, this cost differential in all probability arises from economies of scale in the provision of information and in the acquisition of investment funds through organized securities markets. In other words, even though the unit cost of producing output may be the same for both a small and a large firm, the unit cost of initially financing the firm and of subsequently monitoring its performance is higher for the smaller firm. The effect of imposing a lower tax rate on the small firm is to shift production to an essentially higher-cost form of business organization. Economic inefficiency is subsidized under the guise of offsetting capital market imperfections which are only a reflection of that inefficiency. Thus, the mere existence of capital market imperfections does not in and of itself support the imposition of differentially lower tax rates on smaller firms.

A final effect on the riskiness of small business investment arises from the influence of the tax system on the decision of firms to incorporate. A primary advantage of doing business as a corporation is the limitation on the liability for losses imposed upon investors in the enterprise. In general,
then, the risk associated with investment in a firm will be lower, all else equal, if the firm is incorporated. Because of the separate taxes on personal and corporation income, the total tax liability imposed on a given income stream will be greater if the income accrues to a corporation rather than to an unincorporated enterprise. Thus, the tax system provides an incentive for some firms to remain unincorporated when they would not otherwise do so even though this increases the riskiness of investment in such firms. Since the other incentives to incorporate are generally weaker for small firms than for large, this effect is likely to be more pronounced among smaller businesses.

The provisions of Subchapter S of the Internal Revenue Code, however, eliminate this tax incentive for qualifying firms to remain unincorporated. Subchapter S permits firms with 25 or fewer shareholders to incorporate, thereby obtaining the advantages of limited liability, while at the same time paying tax on the firm's income as if it were a partnership. Moreover, some proposals have been made for fully integrating the corporation income tax with the personal tax. One of the proposed methods of integration would be tantamount to extending the provisions of Subchapter S to all corporations regardless of size. Full integration, utilizing any of the proposed methods would remove the tax incentive to remain unincorporated even for firms not currently qualifying for taxation under Subchapter S.

**Summary:** Given an inherent greater riskiness attaching to investment in small business, certain features of the existing tax system would appear to discriminate against small business investment by reducing the willingness of investors to bear risks. Furthermore, there is some possibility that the tax system increases any pre-existing risk differential between small and large firms. The empirical significance of these effects has not been determined,
nor is it known to what extent the increased riskiness of investment in the smallest size firms is offset by a higher net rate of return arising from the lower effective rates of tax imposed on these firms relative to larger firms.

The Effects of Taxation on the Sources of Small Business Financing

With respect to the sources from which firms obtain financing for initial capitalization and subsequent investment, smaller businesses exhibit two distinct characteristics which tend to set them apart from larger enterprises. First, the owners of a small business are more likely to be involved directly in the management of their concerns. The proportion of total capital which is supplied by the owner-managers and the proportion of subsequent investment which is internally financed tends to be greater than the proportion of internally-generated financing of large business. Second, of that part of the firm's invested capital which is externally provided, a greater fraction of the small firm's capital takes the form of debt rather than equity. Larger firms, by contrast, rely relatively more heavily on equity financing. Furthermore, large firms rely less heavily on banks and other locally-based financial institutions and more on organized securities markets as sources of funds than do small firms.

The existing tax system does not treat internally-generated and externally-generated investment funds identically, nor does it provide equal treatment of debt and equity finance. Therefore, its impact on small businesses differs systematically from its impact on larger enterprises according as the two forms of business organization differ in their capital structures. In this section, the particular features of the tax system which
differentially affect the sources of business financing are examined including:

(1) the deductibility of interest payments but not dividends under the personal and corporation income taxes;

(2) the special treatment accorded to capital gains; and

(3) the deferral of taxes on that portion of earned income which is placed in certain investment pools managed by large institutional investors.

Differential Taxation of Debt and Equity: An important feature of the U. S. income tax system is the existence of separate, unintegrated taxes on personal and corporate source income. Together with the allowance of a deduction from corporate income for interest payments on debt but not for dividend payments to shareholders, this dual system results in a lower rate of tax on debt finance than on equity finance. Each dollar of income earned by the firm on equity-financed capital is first taxed at the firm's marginal corporate tax rate. That portion of the dollar of income which remains after payment of the corporate tax liability may then be retained by the firm for reinvestment or paid out to shareholders as dividends. The dividend payments will be subjected to further taxation at the recipient shareholder's marginal personal tax rate. By contrast, each dollar of income earned on debt-financed capital is not subject to the corporate tax to the extent that it is used for deductible interest payments, but instead is subject only to tax at the recipient bondholder's personal tax rate. Thus, that portion of corporate income accruing to shareholders is taxed twice, while the bondholders' portion of corporate income is taxed only once.
The effect of this differential tax treatment is to reduce the cost per dollar of debt finance to the firm relative to the cost per dollar of equity finance, and thereby to reduce the weighted average cost of capital. Provided the debt-equity mix of the firm is not altered in response to the tax, the decrease in the weighted average cost of capital will be greater for firms with a larger proportion of debt. Because of the greater reliance on debt finance by small firms as noted above, the combined effect of the unintegrated corporate and personal income taxes and the deductibility of interest payments under the corporate tax reduces the weighted average cost of capital to small firms relative to large and thereby encourages additional investment in the small business sector.

This assumes, however, that the capital structure of the firm is unaffected by the tax system, an unlikely event. The reduced unit cost of debt relative to equity encourages all firms, small and large, to substitute debt for equity in financing their investments and in this way to increase their debt-equity ratios. The increased supply of debt bids up the gross-of-tax cost of debt and therefore partially offsets the initial favorable effect on the cost of debt attributable to the tax system. Once again, since the smaller firm's capital structure is more heavily weighted toward debt, the offset will be larger for small businesses than for large.

While the proposals to integrate the personal and corporate income taxes might have a favorable effect on the riskiness associated with small business investments, they would have adverse effects on the sources of small business investment financing. The favorable effect on riskiness arises, it will be recalled, because integration eliminates the tax incentives for firms to remain unincorporated. On the other hand, if in fact the double taxation of
dividends reduces the cost of capital to smaller firms, then integration, by removing the bias in favor of debt, would raise the cost of capital to small businesses. In general, discussions of the effects of integration have not considered the possible differential effects which integration might have on firms of varying sizes.

Effects of Capital Gains Taxation: The treatment of capital gains by the U. S. income tax system differs from the treatment of ordinary income in several respects which are relevant to the problem of financing small business. First, 60 percent of gains from the sale of assets which have been held for at least one year are excluded from the personal income tax. Thus, the effective rate of tax on each dollar of long term capital gain is only 40 percent of the effective rate applied to ordinary income. Second, ordinary income is taxed in the year in which it accrues. The liability for capital gains tax, however, arises only when the gain is realized through sale of the asset. This deferral of tax liability until realization is equivalent to a further reduction in the effective rate of tax on the capital gain. If the asset on which a capital gain has accrued is held in the portfolio until the death of the investor, no tax liability at all is imposed on the accrued capital gain. Instead, the heirs of the investor will pay tax when they sell the asset but only on the gain which accrues from the date of the investor's death to the date of sale. Thus, the effective rate of capital gains tax imposed on assets held until death is zero.

The preferential tax treatment accorded to capital gains is particularly advantageous to the holders of equity interests in firms which retain current earnings rather than paying them out as dividends. These retained earnings can be used in place of externally-supplied equity or debt to finance new
investment. No personal tax liability attaches to the retained earnings, but the market value of the firm increases to reflect the anticipated future earnings from the new investment. This increase in market value is a capital gain so that the return on investment in the firm can in this way be subjected to the lower effective capital gains rate. While preferential taxation of capital gains increases the net-of-tax rate of return on investment in all firms which do in fact retain earnings, the increase varies directly with the proportion of investment funds which are internally generated. Thus, since small businesses rely more heavily than larger firms on retained earnings as a source of funds, the increase in the net rate of return to small business investment exceeds the increase in the return to investment in larger enterprises. In this way, the capital gains provisions of the income tax tend to favor smaller firms over larger ones.

Not all small businesses benefit equally from the preferential tax treatment of capital gains, however. The incentive which the tax system provides for firms to retain earnings creates a "lock-in" effect that is adverse to the financing of investment in some small businesses, especially new ventures. Each dollar of current earnings which is retained by an existing firm can be fully reinvested in the firm. However, if the same dollar is withdrawn from the firm and invested in a new venture, tax must be paid prior to reinvestment so that only the portion of the dollar remaining after payment of personal income tax will be available for the new venture. Thus, withdrawal of current earnings and investment of the proceeds in new ventures is subject to a tax penalty which is not imposed on retentions. Because of this penalty, funds are often retained and reinvested in existing firms even when they would have more productive uses outside the firm. This
particularly reduces the supply of venture capital to new firms which are almost always smaller business enterprises and encourages the growth of existing enterprises.

By examining sales of common stock by high-income investors in 1963, Feldstein and Yitzhaki have attempted to assess the magnitude of this "lock-in" effect arising from the preferential taxation of capital gains.23 They find that, for individuals with a marginal tax rate of 30 percent, the value of common stock sales in the absence of the capital gains tax would have been about three times as large as it actually was in 1963. Dividing the sellers into two groups, those who reinvest the proceeds of the sale and those who do not (presumably using the proceeds for consumption purposes), they find the lock-in effect to be quite substantial for the former group but negligible for the latter. Thus, the capital gains provisions apparently are quite significant in diverting investment funds toward retention and reinvestment in existing firms but they do little to increase the aggregate supply of investment funds.

The preferential tax treatment of capital gains has additional effects which are adverse to the preservation of existing closely-held small businesses. Even where companies have no productive uses for investment funds in their own lines of business, they may be tempted nevertheless to retain earnings, using these surplus funds in alternative ways such as the acquisition of other firms. In this way, smaller firms disappear as they consolidate one with another or are absorbed into larger firms. Moreover, when business owners desire to dispose of the assets of their firms, it is advantageous to have the firm merged into a larger firm whose securities are readily marketable since the exchange of assets for marketable securities
which is usually involved in such a transaction is tax-free. Hence, the tax liability associated with the accrued capital gain on the assets of the smaller firm is further postponed until the marketable securities received in the exchange are themselves sold.

The incentive provided by the capital gains tax provisions to retain earnings is to some extent perhaps mitigated by the special tax on excess accumulations of surplus earnings. Thus, an additional tax is imposed whenever the earnings and profits of a corporation are permitted to accumulate beyond the reasonable needs of the business. In practice, of course, there are no well-defined objective criteria for determining the reasonable needs of the business so that the empirical significance of the excess accumulations tax in discouraging retention of current earnings is unknown, but it is unlikely to be substantial.

**Deferral and Exemption from Tax of Non-Wage Compensation:** Certain forms of non-wage employee compensation are deductible to the firm in calculating its tax liability and, in addition, are either exempt from personal income taxation or are taxed at a lower effective rate than wage income because the tax liability is deferred to some future date. These include, for example, employer contributions to accident and health insurance plans, to life-insurance coverage, and to pension plans and retirement annuity programs. Moreover, employee contributions to annuity plans are exempt from personal taxation in the year in which the income is earned, though the benefits are taxable when they are received. Since the Great Depression, and particularly since World War II, the increases in the rates of personal income taxation have made non-wage compensation more and more attractive as compared with ordinary wages and salaries. Hence, the exemption of fringe benefits from
current taxation has encouraged the substitution of such benefits for money wages.

A special group of financial intermediaries has emerged in recent years to manage and invest the vast pool of funds created by the rise of non-wage compensation with a large and increasing proportion of savings flowing through these intermediaries. The intermediaries are restricted directly or by fiduciary responsibility laws and standards in their investment choices. Because of fiduciary responsibility laws, they tend to exhibit a high degree of risk aversion. As a result they have strong preferences for investment in large blocks of securities which are actively traded on large national markets. These institutional investors have no particular incentive to invest in small amounts or in smaller firms or to seek out riskier ventures. Indeed, they channel most of their funds toward larger enterprises rather than small businesses. In this way the small business sector has been cut off from a substantial portion of current saving which might otherwise have served as a source of small business investment financing.

Special Tax Treatment of Small Business Investment Companies: In 1958 Congress enacted legislation to create a group of licensed private investment firms which were to provide funds to small businesses. These small business investment companies (SBIC's) acquire funds by selling equity. In turn they channel these funds into small businesses by making loans, purchasing convertible debentures, and since 1960 taking a direct equity position in the small business. For the fiscal year ending in 1980, debt and equity credit extended by SBIC's from capital exceeded $1 billion.

To induce suppliers of capital, including in this case both individuals and financial institutions, to invest in the SBIC's, Congress also amended the Internal Revenue Code to provide certain tax benefits for such investments.
First of all, whereas a gain on stock in a small business investment company is taxable to the individual stockholder as a capital gain, a loss on the stock is treated for tax purposes as an ordinary loss rather than a capital loss. Thus, gains are taxed at the preferential capital gains rate while losses are deducted at the rate applicable to ordinary income. The effect of this provision is to increase the expected after-tax return on equity holdings in a small business investment company relative to other forms of investment which have the same before-tax expected return. The benefits of this provision have also been extended, subject to certain dollar value limitations, to direct investments in the stock of small business corporations even without the intermediation of an SBIC.

A second set of provisions governs the tax treatment of the income of an SBIC arising from its investments in small business corporations. Where the SBIC suffers a loss on the sale or exchange of either convertible debentures issued by a small business corporation or stock acquired through the exercise of the conversion privilege, an ordinary loss deduction can be taken. Gains on sale or exchange of these securities are taxed at the capital gains rate, and all other small business assets held by the SBIC are subject to capital gains taxation or capital loss deduction. In addition, an SBIC is permitted to deduct, in computing its taxable income, 100 percent of the dividends received from small businesses in which it has invested in lieu of the 85 percent dividends-received deduction available to other firms. Finally, like banks, life insurance companies, and finance companies, an SBIC is exempted from the personal holding company income surtax.

All of the tax benefits available to an SBIC have the effect of increasing the expected rate of return net of corporate tax on the SBIC's
income. This should be reflected in a higher market value of the equity in other firms which hold equally risky investment portfolios. Thus, while other provisions of the tax system may divert funds away from investment in small business in favor of larger firms, the tax provisions which directly govern investments in the stock of small business corporations and small business investment companies serve to mitigate at least in part this diversion.

Summary: The existing tax system includes several features which tend to favor precisely those sources of investment funds—retained earnings and debt—on which small businesses rely most heavily. On the other hand, these same provisions and some others discriminate in favor of using available funds for the expansion, consolidation, or acquisition of existing firms and against the funding of new, usually smaller ventures. Although studies of the causes of mergers among and acquisitions by firms abound, few have reached definitive results and none provide satisfactory evidence on the magnitude of the influence of tax variables. Moreover, the extent to which any adverse effects on small business financing may be offset by the accumulated earnings tax and by the tax benefits accorded to small business investment companies is unknown. Overall, then, the net effect of taxation on the availability of investment financing for small businesses remains an open question.

Special Problems Associated with Estate and Inheritance Taxation

Upon the death of the owner of any asset, tax liability is imposed under the federal estate tax. This tax liability gives rise to an immediate need for cash with which to make the required tax payments. The need for cash, in turn, presents two problems of particular significance to the owner of a small business or to the holder of an equity interest in a closely-held small
business corporation. First, the assets of a small business or some portion thereof may have to be liquidated in order to acquire the cash. Second, the absence of a ready market in the assets of many small businesses necessitates a subjective judgement by the tax authorities as to the value of these assets for estate tax purposes. Because of these problems, the estate tax may create incentives for the sale to or merger with a larger firm of any small businesses whose assets are subject to estate tax liability.

**Liquidation of Assets:** The need for liquidity to pay an estate tax liability may affect the owner of a small business directly in his estate planning or its impact may affect only the executors and heirs of the estate. In contemplation of death, the owner is motivated to convert at least part of his interest in the business into liquid form so that his heirs will have easy access to ready cash in order to satisfy the tax liability. If the owner of the business has not provided the requisite liquidity, his estate will be confronted with the necessity of disposing of a portion of the interest in the business for ready cash or for marketable assets which can quickly and easily be converted into ready cash.

This problem arises only with respect to certain estates, and does not affect all small businesses equally. The estates confronting the problem have certain characteristics in common:

1. The estate must be sufficiently large to be subject to a significant estate tax liability.
2. The interest in the small business must constitute a major fraction of the estate.
3. There must be no market, or only a very thin and inactive market, for the business assets in the estate.
Under the provisions of the U. S. estate tax in effect in 1980, every estate was entitled to a credit against tax of $47,000. This effectively exempted from tax all estates with a net value not exceeding $175,625. Moreover, the estate tax law allowed a deduction from the value of the gross estate of up to 50 percent or $250,000, whichever was smaller, for transfers of property to a surviving spouse. Together with the tax credit available to all estates, this exempted from estate tax all estates having a value not exceeding $351,250 provided half of this amount was transferred to the surviving spouse. Thus, many smaller estates, including those of individuals holding an interest in a small business, were not subject to estate taxation at all.

Beginning in 1981, the unified gift and estate tax credit will rise in steps, reaching a maximum of $192,800 in 1987. Thus, by 1987 only net estates with more than $600,000 in assets will be subject to estate tax liability. Furthermore, all transfers to a surviving spouse are exempt from tax beginning in 1981. With these revisions in the estate tax, it is estimated that by 1987 less than one-half of one percent of all estates will be subject to tax. The liquidity problem should then be eliminated for most small businesses.

Even among those estates which are subject to tax, illiquidity becomes a problem only if the proportion of the estate which is invested in liquid assets is less than the effective rate of tax on the net estate. Some indication of the relative magnitudes of taxable estate and degree of liquidity, based on the 1980 estate tax provisions, can be gleaned from the examples in Table 6. It is assumed in each case that the marital deduction applied and that no other deductions from the gross estate were taken. Thus, even for estates as large as $2 million, all illiquid assets, including any interests in small businesses, must have constituted at least 69 percent of
Table 6: Illustration of the Estate Tax Illiquidity Problem

<table>
<thead>
<tr>
<th>Gross Estate</th>
<th>Effective Tax Rate (%)</th>
<th>Minimum Business Interest For Liquidity To Be A Problem (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$400,000</td>
<td>2</td>
<td>98</td>
</tr>
<tr>
<td>600,000</td>
<td>10</td>
<td>90</td>
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</tr>
<tr>
<td>2,000,000</td>
<td>31</td>
<td>69</td>
</tr>
</tbody>
</table>

Source: Calculated by the author based on 1980 U.S. estate tax provisions.
the taxable estate before liquidation of assets to pay estate tax liability became a threat.

For estates which exhibit the three characteristics above, however, liquidation of assets is often perceived as a clear threat. One technique for acquisition of liquid assets to meet a present or impending estate tax liability is the sale of the firm to another party for cash. To a small businessman planning for his eventual demise, this solution has several important disadvantages. It removes him from control of the business, effectively forcing an early retirement. Moreover, it subjects the assets of the firm to capital gains tax at the time of sale, in addition to the later estate tax liability on the liquid assets received in exchange. Thus, sale of a small business interest for cash in anticipation of estate tax liability is an unattractive means of providing the liquidity necessary to meet that liability when it arises.

An alternative to a premature sale of assets would be the accumulation within the estate of other liquid assets sufficient to cover the anticipated estate tax liability. Where the small business interest is a large fraction of the estate, as it typically will be in the cases in question, however, the income from the business may be necessary for current living expenses. Even where some income is available for acquisition of additional assets, its most productive use might be for internal expansion of the firm. Thus, use of such funds to provide liquidity for estate tax purposes would constitute diversion from a more productive to a less productive form of investment.

A third technique for providing liquidity is a merger of the small business with another firm. The capital gains tax problem is avoided in this way since an exchange of assets consequent upon a merger is tax-free. The need for liquidity, however, requires that the merger be with a larger firm so
that the small business owner's estate will receive in the tax-free exchange readily marketable securities, some or all of which can be converted into cash. As a result, some small businesses tend to be absorbed by larger enterprises prior to or upon the death of their owners.

The need for liquidity, even for estates meeting the three conditions enumerated above, would not present a problem for small businesses if capital markets were perfect. If it were economically efficient for the small business to maintain its separate identity, the owner's estate could profitably borrow the cash needed to pay the estate tax liability using the value of the firm as security for the loan. Limitations on the availability of information together with the presence of significant transactions costs, however, prevent capital markets from operating perfectly, and in the absence of perfect capital markets, this approach may not be open, leaving only merger as a satisfactory solution.

Valuation of Assets: When a taxable estate includes an equity interest in a closely-held small business the shares of which are not frequently traded on an open market, a problem arises in determining the value of the equity interest for purposes of estate taxation. The tax rules require that a "fair market value" be placed on the shares, but there is no objective test which can be applied to determine fair market value in the absence of trading the securities in question. Since impartial experts often differ by very wide margins in their estimates of the fair market value of such securities, the holder of the small business interest faces some uncertainty in his estate planning.

Generally, in cases of valuation of closely-held stock, the judgement of the tax authorities is conclusive. The behavior of small businessmen in arranging their affairs will therefore be governed by their perceptions of the
behavior of the tax authorities, even if those perceptions do not coincide with reality. If businessmen believe that the authorities consistently, or even simply more often than not, over-value the assets of the closely-held firm, they may be motivated to avoid this perceived over-valuation and the excessive taxation which it would entail by an early disposal of their interest in the firm. Again, this is most easily accomplished through a tax-free exchange of assets with an existing larger firm whose securities are readily marketed and hence easily and objectively valued. Even if small businessmen believe that on average the authorities value the assets of the closely-held firm fairly, but that there is a significant variance from one case to another, they may, if they are risk-averse, still find it in their interests to dispose of the non-marketable stock in exchange for the more marketable securities of the larger firm. In this way, valuation uncertainties may sometimes lead to the absorption of small businesses by larger firms.

Provisions Which Mitigate the Incentive to Merge: To some extent the existing system of estate taxation recognizes the incentives which have been created for the owners of small businesses to merge their firms into larger enterprises in contemplation of an estate tax liability. Thus, certain provisions have been adopted to minimize these effects. First of all, where an estate consists largely of interests in closely-held businesses, the estate tax may be paid over a period of ten (in some cases, fifteen) years. This mitigates the liquidity problem to the extent that the income generated by the business interest over the ten-year period is equal to or greater than the estate tax liability imposed.

Second, redemption of small business stock by a firm from a deceased owner's estate is treated as a sale or exchange of assets rather than as a
distribution of earnings. The proceeds are then subject to the preferential capital gains tax rate, not the rate on ordinary personal income. Thus, where an estate qualifies for such treatment, this provision permits the firm itself to provide the needed liquidity to the decedent's estate.

Finally, if certain conditions are satisfied, real property in an estate may be valued for tax purposes on the basis of its "current use" rather than its "highest and best use", the latter corresponding to fair market value. This provision has two effects. It reduces the size of the taxable estate, and hence the tax liability, whenever its use is elected. In addition in some cases it provides a more objective standard of valuation based on current and past annual income, thereby reducing the uncertainty surrounding valuation of the assets. The conditions that must be met before a firm can qualify for this special use valuation are stringent and complex, however. Moreover, it is of significant benefit only to small businesses which are land-intensive, particularly farming.

Summary: Estate taxation is often cited as a major motivating factor in the merger of small businesses with larger enterprises, and consequently as a cause of the decline of the small business sector. In principle, it is clear that anticipation of an estate tax liability could, because of liquidity considerations and because of valuation uncertainties, induce small businessmen to dispose of their interest in exchange for more marketable securities. In practice, however, the significance of these effects is unclear. Not all small businesses are equally subject to such tax pressures. Special circumstances must be present before illiquidity of an estate due to the inclusion of a small business interest becomes a problem, and the extent to which businessmen in fact perceive valuation to be a problem has also not been conclusively determined. According to the survey by Butters, et. al.,
Valuation uncertainties by themselves only infrequently constitute a major reason for the sale of closely held businesses. They often, however, increase the potential scale of the liquidity problems confronting the owners of closely-held businesses and thereby increase the likelihood that sales will be made for liquidity reasons [p. 92].

On the other hand, the same authors also conclude that "...the tax reasons for sale are always encountered in a setting which also involves a large range of non-tax motivations. The non-tax motivations more often than not dominate the decisions actually made" [p. 70].

A Conclusion and an Agenda for Future Research

The effects of the existing system of taxation on the small business sector of the American economy are many and varied. This study has attempted to present a comprehensive review of those provisions which are particularly relevant for small businesses and to provide a detailed analysis of the impact of each one. Based on this analysis, one cannot conclude that the U. S. tax system on the whole discriminates against small businesses relative to their larger counterparts. Indeed, on the basis of average effective tax rates, the evidence clearly and unambiguously indicates that the overall burden of taxation on the smallest firms (those with less than $1 million in assets) is less than the burden imposed on larger firms. The evidence on the relationship between tax rates on firms of intermediate size, however, is unclear. With respect to those provisions of the tax system which may have a differential impact on small businesses, some discriminate in favor of the smaller firms; the potentially adverse effects of others are often mitigated by offsetting special provisions adopted specifically for small businesses; and, finally, the real significance of the remainder is constrained by their applicability only to a limited subset of small firms.
All of this, of course, implies nothing about the absolute burden of taxation on business in general. It does suggest, however, that claims of discrimination by the current tax system against small business and in favor of larger firms are not substantiated clearly and unambiguously by the available evidence, and hence do not provide the strongest possible support for proposals to reform the tax system solely to benefit small business. Rather, preferential tax treatment of small businesses should be justified on other grounds such as the social desirability of maintaining a small business class and of restraining bigness. On the other hand, it may well be that strong arguments can be made in favor of general tax relief for all businesses, large and small.

The conclusions drawn from the analysis contained in this study are, however, necessarily tentative. Indeed, a complete and conclusive assessment of the impact of the tax system on small business is impossible given the absence or inadequacy of data relevant to many of the issues which have been raised. In its Report to the President, the White House Commission on Small Business stated, "...the Commission encountered two major difficulties that suggest how seriously Small Business has been neglected. One is a severe lack of reliable data" [p. 14]. As a result, the Commission was moved "...to advance at the outset one recommendation that it feels is of paramount importance." It was then proposed that a thorough data base on small business be developed by the Small Business Administration with assistance from other government agencies and from the private sector. Furthermore, over and above the limitations imposed by the available data, analysis of the effects of taxation on small business is also restricted by the existence of several areas in which the relevant economic theory is underdeveloped. Given the
inadequacies of existing theory and evidence encountered throughout this study, it seems appropriate to conclude with a catalog of issues on which further research is clearly warranted.

The Agenda: (1) The White House Commission on Small Business expressed the belief that large companies obtain the biggest benefits from various incentive provisions in the tax code such as the investment credit and the foreign tax credit. The assertion was made in the 1980 study sponsored by the SBA. While it may be true that the dollar value of these deductions and credits is greater for large firms, or even that their value as a percentage of gross receipts is greater, the economic significance of these facts is unclear. What is relevant is the effect of these provisions on the overall progressivity of the tax system, and Weiss's analysis of the investment tax credit indicates that this particular provision increases progressivity, thereby favoring small business. A useful area for additional research, then, would be the application of Weiss's methodology to other tax incentives to assess their impacts on the tax system's progressivity. At the same time, further study needs to be done on the appropriate conceptual measures of the differential impact of tax incentives on small and large businesses.

(2) The effective tax burdens calculated by Feldstein and Summers for the years 1954 through 1977 are extremely useful indicators of the absolute impact of the tax system on all business in the aggregate when due allowance is given to inflation and to the existence of a dual system of income taxation. It would be most informative to extend the Feldstein-Summers analysis to determine whether, for any given year, the effect of inflation on effective tax burdens varies systematically by asset size of firm and whether the differential between the average effective rate of corporate profits tax
and the total effective tax burden (including the taxes on dividends, interest, and capital gains assessed against the individual investors in the firm) varies with firm size. This requires use of Feldstein and Summer's methodology together with data from Statistics of Income disaggregated according to asset size of firm.

(3) The economic literature on the incidence and shifting of taxation is voluminous, including both theoretical and empirical research. However, virtually no studies have been done to determine whether the actual degree of tax shifting is related to firm size. Some estimate of the ability of firms to shift taxes which are nominally imposed on them is clearly prerequisite to assessing the true burden of taxation, as well as its possible discriminatory impact, on small business.

(4) The theoretical literature concerning the effects of taxation on the willingness of investors to bear risks is inconclusive, and the empirical evidence is non-existent. In particular, there has been no analysis of possible differences between small and large firms with respect to tax effects on risk-taking. Significant advances in the theory of risk-bearing will be required here before additional light can be shed on the specific impacts on small business financing.

(5) Progressive rate taxation of both corporate profits and individual incomes is often advocated to offset the bias against investment in small businesses which the capital markets exhibit. However, progressive taxation is not the only technique available for offsetting such a bias if one truly exists, and among a number of alternative techniques, progressive taxation may not be the most effective. An investigation, possibly utilizing simulation analysis, of the relative effectiveness of a variety of tools, including
progressive taxation, would contribute significantly to the current debate over tax reform, particularly in light of the White House Conference's call for even greater progression than already exists.

(6) The advantages of the corporate form of organization to a large firm are almost always sufficient to justify incorporation despite the double taxation of corporate equity income. Small firms which can qualify for tax treatment under Subchapter S of the Internal Revenue Code can obtain the advantages of incorporation while avoiding this tax penalty. Small firms which do not qualify for Subchapter S treatment, on the other hand, may well be deterred by the tax penalty from seeking the advantages of incorporation. To reduce the restrictiveness of Subchapter S, the White House Commission recommended an increase in the number of allowable shareholders to 100. The extent to which the existing qualifications for Subchapter S treatment really do restrict the availability of this provision to small firms is unclear, however. Some insight into the dimensions of this problem could be obtained by a study designed to estimate the number of unincorporated small businesses which are currently ineligible to elect Subchapter S. The study should also attempt, perhaps using survey techniques, to determine what proportion of these firms would elect to use Subchapter S if eligible, whether factors other than just the number of investors influence a firm's decision to elect Subchapter S treatment, and what impact various changes in the eligibility requirements might have on the proportion of firms which actually would choose Subchapter S treatment.

(7) The double taxation of equity income tends to increase the cost of equity capital to a corporation relative to the cost of debt. Since different firms have different proportions of equity and debt in their capital
structures, the effect of this double taxation on the weighted average cost of capital varies from one firm to another. To determine whether double taxation discriminates for or against small businesses, the relationship between the additional tax on equity income and the capital structure of the firm needs to be derived. Then, if there exists a systematic relationship between capital structure and asset size of firm, the impact of double taxation on the weighted average cost of capital to smaller firms relative to large can be assessed. In addition, this would permit an investigation of the potential effects of integration of the corporate profits and personal income taxes on the cost of capital to small business.

(8) In 1969 the effective rate of tax on capital gains was increased by the adoption of a new minimum tax on selected preference income which included in its base the half of capital gains that were at that time excluded from taxable income. Beginning in 1979, on the other hand, the effective rate was reduced by omitting capital gains from the minimum tax on preference income and by increasing the excludable portion of gains to 60 percent. These changes in the effective capital gains tax rate provide an opportunity for investigating the significance of capital gains taxation for investment financing in general, and in particular for the supply of venture capital to new small businesses.

(9) It has often been alleged that the tax system is a major cause of the absorption through sale or merger of small firms by larger enterprises. Previous studies of this issue have almost exclusively relied on survey research methods. Other statistical and econometric tools are now sufficiently well-developed, however, to make these techniques available for an examination of the problem. Investigation of the characteristics of
merging firms and of the characteristics of firms involved in acquisitions, together with an application of the emerging theory of contracts, might provide the foundation for a theory of acquisitions and mergers. Within the framework of such a theory, then, the role of tax variables in the reorganization of firms could be analyzed and estimates of the empirical significance of these tax variables could be obtained.

(10) The pioneering study by Butters, Lintner, and Cary identified three conditions which must be met before the need for liquidity becomes a significant problem for an estate that includes an interest in a small business. On the basis of these pre-conditions, they made some very rough estimates of the typical size of estate for which liquidity would be likely to pose a threat under the estate tax laws then in existence. The possible adverse effects of estate taxation on small business are a continuing concern as reflected at the White House Conference on Small Business. Still, the real significance of the problem remains unknown. It should be possible to estimate fairly precisely the number and the percentage of small firms which in any given year actually satisfy the conditions identified by Butters, et al., and so are faced with the need to liquidate assets to pay an estate tax liability. Such a study would also permit determination of the effectiveness of the special provisions in the tax code in mitigating the adverse consequences of estate taxation.

(11) Valuation of the assets of the closely-held firm is the other problem for small business which the estate tax presents, a problem which has not been fully investigated in more than 15 years. A careful review of the principles of valuation used by the Internal Revenue Service and approved by the courts would be useful in determining whether there is in the valuation
process either a clear bias or even any consistency at all. Moreover, it should be possible to derive from economic and financial theory the appropriate basis for a consistent and unbiased set of valuation principles to be used in future cases.
FOOTNOTES


4In a paper prepared for SEA, Durwood Alkire examined the relationship between taxes per dollar of net worth and firm size. He found that, by this measure, smaller firms generally bear a greater tax burden than larger businesses. However, he included in taxes not only those on profits but sales and payroll taxes as well. Because small businesses are typically labor intensive relative to large business, the inclusion of the employer's share of payroll taxes would in and of itself account for a significant portion of the difference between Alkire's results and those reported in the studies reviewed here. These taxes, however, are not relevant to the issue of small business financing and should not be included. Moreover, their inclusion rests on the assumption that the true incidence of a tax is identical to its legal incidence, that these taxes are not shifted to consumers or to employees. The possibility that taxes on business may be shifted is discussed later in this paper. For more on the relationship between taxes as a percentage of net worth and firm size, see Durwood Alkire, "Small Business Tax Problems," Small Business Administration, October 4, 1979.

5For an excellent and extensive discussion of the problems encountered in the measurement of the firm's tax liability and profits and of the alternative sources of data available, see Seymour Fiekowsky, "Pitfalls in the Computation of 'Effective Tax Rates' Paid by Corporations," U. S. Treasury Department, Office of Tax Analysis, July 1977.


7If $t$ is the average effective tax rate and $R_b$ and $R_a$ are the ratios of, respectively, before-tax and after-tax profits to stockholders equity, then

$$t = 1 - (R_a/R_b).$$

A recent study by Hans Stoll and James Walter generally confirms this pattern. However, Stoll and Walter also calculate what they term the "tax burden." They find generally that the tax burden is much higher for firms with fewer than $100 thousand in assets than for other firms. For firms with assets in excess of $100 thousand, the tax burden is greatest on firms in the $5 million to $10 million asset size class. The denominator of their tax burden ratio is the net income of firms with income minus the deficit of firms without income. Thus, the denominator is smaller than the denominator of the effective tax rate which includes only firms with income. While the data for this study were taken from corporate tax returns as reported in Statistics of Income the resulting measures of taxation by asset size are not directly comparable to those in the studies reported on in the text. Stoll and Walter have used only the raw data without making the adjustments necessary to ensure that the measure of taxes paid in the numerator of this ratio is in fact commensurate with the measure of net income used in the denominator. On the necessary adjustments, see the references in footnotes 5 and 8. For the Hans Stoll and James Walter results, see Tax Incentives for Small Business (Hellen Small Business Institute Policy Paper, 1980).


13 In an unpublished paper, Feldstein and James Poterba have updated these results and recalculated the effective tax rates with state and local corporate income and property taxes included. The conclusions in the text are generally confirmed by the Feldstein and Poterba study. The effective tax rates presented there, however, are often somewhat lower than those reported in Feldstein and Summers, although the average difference is only 5 percentage points and the difference exceeds 10 percentage points in only one year. See Martin Feldstein and James Poterba, "State and Local Taxes and the Rate of Return on Non-financial Corporate Capital," National Bureau of Economic Research, July 1980.


Technically, an increase in risk-taking occurs whenever either (1) absolute risk aversion is increasing when wealth is increasing, or (2) absolute risk aversion is decreasing and relative risk aversion is constant or decreasing when wealth is increasing.


Although now somewhat outdated, an excellent study on this subject was done in J. Keith Butters, John Lintner, and William L. Cary, *Effects of Taxation on Corporate Mergers* (Boston: Harvard University Graduate School of Business Administration, 1951).