

**TAXING CORPORATE CAPITAL GAINS**

By Mihir A. Desai

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Prof. Desai notes that a missing element in current debates over the appropriate taxation of capital income is the puzzling treatment of corporate capital gains. Given the rising importance of corporate capital gains and the unique distortions associated with them, he finds the oversight surprising. He notes that the taxation of corporate capital gains is associated with two types of economic distortions. First, the realization-based taxation of corporate capital gains discourages value-enhancing asset reallocation by creating a significant “lock-in effect.” Because unrealized U.S. corporate capital gains exceed \$800 billion, there is a sizable economic cost associated with that lock-in effect.

Second, such taxation discourages corporate investments by imposing a third layer of tax on top of the corporate income tax and the personal income tax on corporate income distributed to shareholders.

Those distortions, he believes, are all the more notable because of the relief available for analogous transactions in other parts of the tax system. For example, he notes, capital gains earned by individuals are currently taxed at lower rates than apply to ordinary income and dividends received by corporations are afforded relief through the dividends-received deduction. Among his suggested alternatives to taxing corporate capital gains at the same rates as ordinary income are exempting corporate capital gains from taxation altogether or taxing corporate capital gains at preferential rates. Several other countries exempt corporate capital gains from taxation. Reforms to the U.S. taxation of capital gains, he believes, have the potential for sizable efficiency gains relative to other alternatives, given the magnitude of preexisting distortions from the current system of capital taxation. He calculates that a reduction of the corporate capital gains tax rate from 35 percent to 15 percent would be associated with \$17 billion per year in efficiency gains.

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**I. Introduction**

The appropriate taxation of capital income has preoccupied policymakers and scholars for the last half century. Within that debate, the taxation of capital gains has been a central topic. Surprisingly, the emphasis on capital gains has been limited to the role of capital gains at the individual level rather than at the corporate level. That asymmetry may have arisen because of a perception, unsupported by the evidence, that corporate capital gains were of a small magnitude relative to other sources of corporate income or relative to individual capital gains. This report attempts to rectify that imbalance by reviewing the magnitude of corporate capital gains, the distortionary effects of corporate capital gains taxation, and the efficiency and revenue consequences of alternative treatments of corporate capital gains.

Corporate capital gains make up an increasingly large portion of corporate income, now comprising approximately 20 percent of corporate income subject to tax, and one-third of the dollar amount of taxable individual capital gains. This report provides a variety of metrics for understanding the growing importance of corporate capital gains, including evidence that the late 1990s and early 2000s saw an increase in the level of unrealized corporate capital gains — a modest estimate of those gains exceeds \$800 billion.

When considered within the broader nature of capital taxation, the current system of taxing corporate capital gains appears anomalous. In particular, dividends and capital gains earned by corporations are treated asymmetrically, and the absence of relief for corporate capital gains results in a third level of taxation on capital income. Individual capital gains are taxed at preferential rates, in recognition of the importance of encouraging corporate investment and mitigating the impact of situations in which investors are locked into investments they would prefer to sell were it not for the associated capital gains taxes. Although both considerations apply with equal or greater force to corporate investments, corporate capital gains are currently taxed at ordinary income rates. Many other countries exempt from tax corporate capital gains or tax them at preferential rates, further contributing to the anomalous nature of current U.S. tax policies.

***When considered within the broader nature of capital taxation, the current system of taxing corporate capital gains appears anomalous.***

The corporate capital gains tax has a variety of distortionary effects in addition to those usually considered in connection with the individual capital gains tax. For example, foreign and domestic investors are taxed differently, thereby affecting the pattern of asset ownership. Also, corporations respond to the corporate capital gains tax with a variety of tax planning activities that have distortionary effects.

This report concludes by considering alternatives to the current practice of taxing corporate capital gains at the same rate as ordinary income. The efficacy of any alternative depends on the responsiveness of corporate capital gains realizations to tax rates. Measured elasticities of corporate capital gains realizations to tax rates are higher than individual elasticities, giving rise to greater potential efficiency gains associated with reduced tax rates. The reduced lock-in effect associated with a reduction in the corporate capital gains tax rate to 15 percent would produce annual efficiency gains of \$16.7 billion per year. Repealing the corporate capital gains tax entirely would eliminate the "lock-in effect" and thereby produce an efficiency gain of \$20.4 billion per year. Also, reduced corporate capital gains tax rates would generally reduce the tax burden on corporations, improving efficiency by encouraging greater corporate investment. The revenue consequences of those alternative treatments are also discussed, as is the possibility of a holiday for the taxation of corporate capital gains.

While seemingly abstract, those large efficiency gains can be understood as a measure of economic surplus or income that is currently forgone because of that taxation. As detailed below, those improvements in economic efficiency correspond to increases in national income and corresponding increases in wages. Tax relief of various stripes has the potential to generate sizable efficiency gains relative to lost tax revenue. Several features of corporate capital gains taxes suggest that corporate capital gains tax relief has the potential to produce significant

efficiency gains. The greater responsiveness of corporations to taxation, interactions with other financing frictions, and the preexisting distortions in the taxation of capital income suggest that alternative, less onerous treatments of corporate capital gains have the potential to yield greater efficiency gains, relative to revenue consequences, than other sources of tax relief.

This report proceeds as follows: Section II outlines some of the situations in which corporate capital gains are realized. Section III provides an analysis of the magnitude of corporate capital gains realizations and the current stock of unrealized corporate capital gains. In section IV, current corporate capital gains tax policy is placed within the broader context of the taxation of capital income. Section IV also illustrates how corporate capital gains taxation may constitute a third layer of taxation. To stimulate consideration of alternative methods of taxing corporate capital gains, section V places the United States within a comparative perspective by outlining how other countries treat corporate capital gains. Section VI considers the distortionary effects of the corporate capital gains tax. Section VII outlines alternative treatments of corporate capital gains and their efficiency and revenue consequences for the U.S. economy. By improving the allocation, and therefore the productivity, of capital assets, reduced corporate capital gains taxation would increase U.S. national income, most of the benefit of which would materialize in the form of higher wages. Section VIII is the conclusion.

## II. Motivating Examples

Corporate capital gains arise from transactions that resemble the transactions that give rise to individual capital gains. The following simple examples identify a variety of common and straightforward corporate transactions that trigger corporate capital gains obligations.<sup>1</sup>

**Divesting a successful subsidiary.** When a corporation sells its stock in a subsidiary, gains from that sale are considered capital gains. For example, a firm engaged in one type of business might create a subsidiary in another line of business that subsequently becomes very profitable. At some later time, the parent chooses to sell the subsidiary. To do that, the parent sells all of its shares in the subsidiary and realizes a capital gain if the price of those shares exceeds the parent's basis in those shares.

**Appreciated intercorporate equity investments.** Individual companies may hold stock in other companies for a variety of reasons. Historic strategic decisions, including mergers and joint ventures, can result in those holdings, or firms may acquire stock in other companies for various financial objectives. As those stocks appreciate, as in the case of individual capital gains, corporate holders become potentially liable for corporate capital gains taxes on realization.

**Corporate venture capital successes.** Corporations may set up venture capital arms to take advantage of

<sup>1</sup>Appendix A provides a more extensive discussion of the precise definitions of corporate capital gains and losses, with particular attention paid to the nature of capital assets and the treatment of losses and gains.

developing technology and to encourage innovation by their employees. If a start-up firm backed by a corporate venture capital arm is successful and goes public, the corporation may want to sell its holdings to invest in new ventures. If the corporation sells its shares, the profits made on the difference between sales prices of shares and original investments are taxed as capital gains.

**The sale of appreciated land.** Corporate capital gains may also arise because of real estate transactions. If, for example, a company with an older manufacturing plant wished to dispose of that plant and the underlying land, gains attributable to the sale of the land generally would be considered capital gain.

### III. The Extent of Corporate Capital Gains

How important are corporate capital gains? There are two primary sources of data on the scope and magnitude of corporate capital gains. First, tax return data are published in the IRS Statistics of Income reports. That source has the advantage of being based on actual capital gains realizations but does not provide estimates of the stock of unrealized gains. Fortunately, public financial records can be used to provide a lower bound estimate of the stock of unrealized corporate capital gains.

#### A. Realized Capital Gains: Data From the IRS

Tax returns show that capital gains income comprises a large percentage of corporate income. From 1998 to 2002 (the last five years of available data), net long-term capital gains averaged \$128 billion a year, or 19.1 percent of income subject to tax. Not surprisingly, capital gains realizations peaked — at \$176 billion — in 2000 when the equity market peaked. That amount represented 22.8 percent of income subject to tax. Analysis in Desai and Gentry (2004) indicates that across three basic industry groupings — manufacturing; finance, insurance, and real estate (FIRE); and all other industries — FIRE is particularly reliant on net long-term capital gains, but both manufacturing and other industries have featured increases in the relevance of corporate capital gains. From 1998 to 2002, net long-term gains for manufacturing firms averaged \$32 billion, or 13.4 percent of income subject to tax.

Those realization levels, while reduced by the lock-in effect, are nonetheless large relative to the overall level of capital gains realized in the economy. The ratio of aggregate realized corporate capital gains to aggregate realized individual capital gains has varied between 20 percent and 40 percent since the 1950s, averaging 30 percent. Currently, realized corporate capital gains are approximately one-third of the aggregate value of realized individual capital gains. As discussed below, the smaller magnitude of corporate capital gains does not mean that the efficiency consequences of corporate capital gains will be proportionately smaller. The greater sensitivity of corporations, the interactions with other financing distortions, and the preexisting distortions to capital taxation all create the scope for greater efficiency consequences from corporate capital gains taxation.

#### B. Realized and Unrealized Gains: Compustat Data

Public financial data does not provide comprehensive data on realization behavior but can be used to assess the

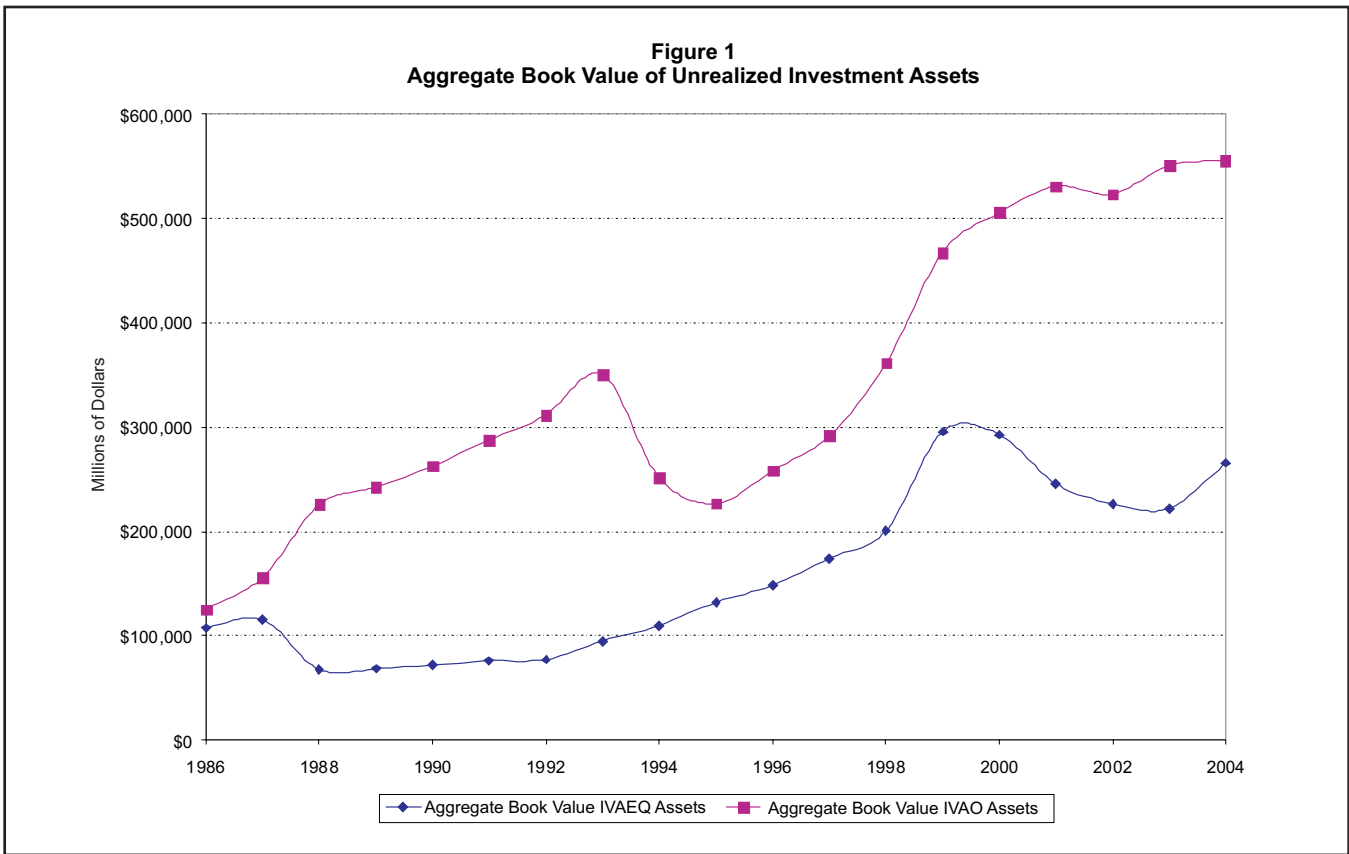
overall stock of unrealized gains and to better understand the behavior of large public firms. Desai and Gentry (2004) report that 26 percent of the firms surveyed in the data from 1980 to 2002 reported a net positive value from the sale of investments and 50 percent reported the disposal of property, plant, and equipment (PPE).<sup>2</sup> Given the materiality test for reporting values in public financial statements, those ratios serve as a lower bound on the likelihood that firms are realizing gains and indicate the degree to which corporations hold unrealized capital gains.

Public financial records are also a valuable source for estimates of a portion of *unrealized* capital gains. Unrealized capital gains on some investments can be estimated by considering what a firm reports under the line item “Investments and Advances.” Those items are calculated by either the equity method (Investment-Equity, denoted IVAEQ in Figure 1 on p. 1082), when the ownership stake is between 20 percent and 50 percent, or by other methods (Investments-Other, denoted IVAO in Figure 1), when the ownership stake is between 0 percent and 20 percent. Figure 1 shows that the aggregate value of unrealized investment assets have more than quadrupled over the past 20 years. The past decade has featured particularly steep increases. Importantly, those values are book values. In 2004 total unrealized investments were valued at \$821 billion (measured at book values) and the value of investment sales (measured at market values) was \$555 billion, or nearly 68 percent of the total assets held. Given that such a high level of turnover is unlikely, the book value likely dramatically underestimates the market value of investments reflected in public financial statements.

How do the figures of total unrealized investments of \$821 billion (measured at book values) translate into estimates of the market value of unrealized gains? Making that translation requires an estimate of the average holding period of an investment and the rate of appreciation for those assets. Over the last 10 years, the total return on the S&P 500 index has averaged 9.2 percent. Assuming an eight-year average holding period, the unrealized gains held by public companies amount to \$839 billion and an overall value of corporate equity investments of \$1.66 trillion.<sup>3</sup> That calculation omits consideration of assets more than 50 percent of which are owned by single corporations — or affiliate stock and real estate, neither of which are included in publicly reported investments and advances. Inclusion of those assets would increase estimated aggregate unrealized capital gains by an unknown amount.

<sup>2</sup>See Desai and Gentry (2004), p. 22.

<sup>3</sup>An average holding period of eight years has been assumed because corporate investors, given the magnitude of their stakes, are likely to have considerably longer holding periods than individual investors. Atkins and Dyl (1997) report average holding periods of seven and four years for NASDAQ and New York Stock Exchange stocks, respectively, and those figures average across all types of holders of common stock. Accordingly, eight years, and the corresponding figure of unrealized gains, is likely an underestimate of the stock of unrealized gains.



The data that are used to calculate the aggregate value of investments can also be used to identify the share of firms with those investments. Figure 2 on the next page shows the share of firms with nonzero values for either equity or nonequity investments, and, as such, provides a perspective on how many firms face unrealized corporate capital gains. While the series displays a consistent decline until the late 1990s, the trend steadied and actually reversed after the late 1990s.

How are those investments distributed across industries? In Figure 3 on p. 1084 and Figure 4 on p. 1085, the bars show the distribution of all investments across industries. For each industry, the line plots the share of firms that report having a positive investment value.

Investments recorded via the equity method are concentrated in the consumer staples, energy, and telecom services sectors. Those industries may have a higher tendency to hold equity in other companies (energy and telecom conglomerates, for example). Those industries also feature the greatest percentage of firms with investments. Also, the utilities industry has a very high share of firms with investments accounted for by the equity method.

For investments accounted for by other methods, industrials, information technology, and utilities make up the majority of aggregate value. By that measure, again, the utilities industry features a large number of firms with investments recorded on their financial statements.

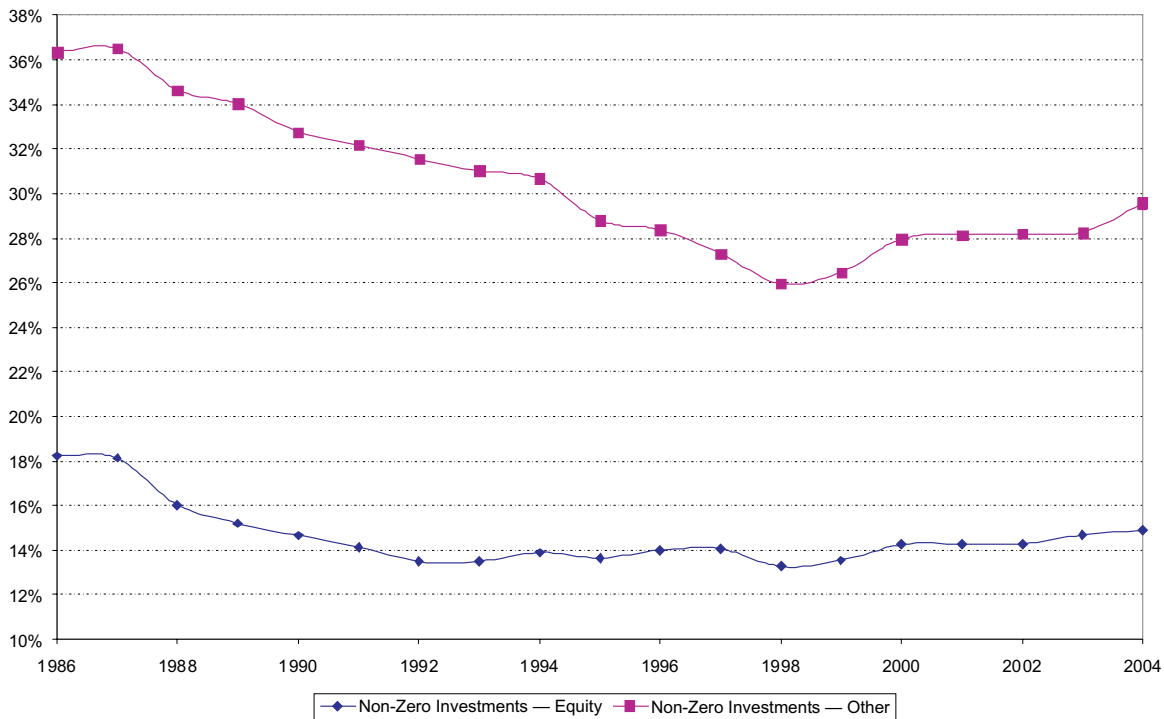
#### IV. Conceptualizing Corporate Capital Gains

To frame corporate capital gains taxes within a broader understanding of capital taxation, it is useful to begin with a review of how individual capital gains taxes are thought to constitute a form of double taxation. This analysis serves to highlight the curious nature of corporate capital gains taxation. As Figure 5 on p. 1086 makes clear, savings provided by households to firms — through either debt or equity — constitute the foundation of the capital markets.

The distinction between returns to debt and to equity forms the basis of double taxation. Returns to debt holders are interest payments while returns to equity holders can be made through dividend payments or capital gains. While the returns to all forms of capital are taxable to individuals, interest payments are deductible to firms. By contrast, dividend payments are made to shareholders from after-corporate-tax income. Similarly, capital gains represent, in part, the percentage of after-corporate-tax earnings retained by the firm for further investment. Both dividends and capital gains are returns to equity holders that are taxed at the corporate level and also when disbursed to, or realized by, individual shareholders.

To understand how corporate capital gains taxes fit within that common understanding of capital taxation, consider Figure 6 (on p. 1087) as an amended version of Figure 5. If a firm owns equity in another firm, the equity income received by the firm is taxed at the firm level as well. Between 70 percent and 100 percent of intercorporate dividends are excluded from taxable income, however, depending on the relationship of the firms. That tax

**Figure 2**  
**Percentage of Total Firms With Investment Assets**



relief, known as the dividends received deduction (DRD), reduces the potential triple taxation when corporation B pays a dividend to corporation A, which in turn pays a dividend to its shareholders, who are subsequently taxed on that income as well. Similar tax relief is not available to corporation A on realized capital gains in the equity of corporation B. In that simple example, equity capital returns can be taxed three times: to corporation B, as a capital gain to corporation A, and then again as the returns are distributed to households.

That simple diagrammatic representation of the corporate capital gains tax system makes clear that current policy is anomalous in two important ways. First, intrafirm equity income faces asymmetric treatment for dividends and capital gains for unknown reasons. Second, holdings of equity through the corporate form create the opportunity for a third layer of taxation.

## V. International Corporate Capital Gains Treatment

How does the U.S. treatment of corporate capital gains compare to the rules employed by other countries?<sup>4</sup>

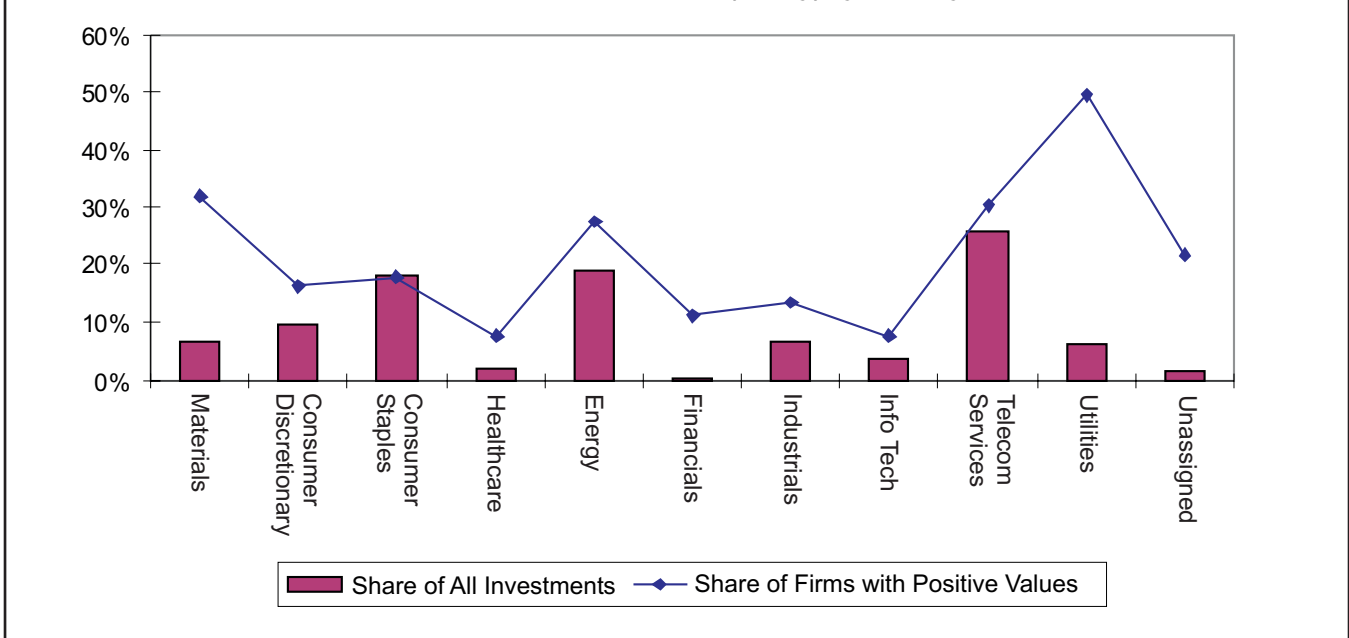
Several countries do not tax corporate capital gains at all. Countries such as Hong Kong, Singapore, New

Zealand, Costa Rica, Jamaica, and Kenya are among those that define corporate capital gains as a separate kind of income but do not tax that income. There are caveats to that total exemption, however, that appear to be designed to capture frequent trading in securities. New Zealand and Singapore have refined their definitions of capital gains to exclude particular kinds of short-term gains so that those realizations are taxed as normal operating income.

Many countries that do tax corporate capital gains provide various types of relief. For example, France recently enacted a bill dramatically reducing its capital gains tax. For fiscal years beginning on or after January 1, 2007, France will exempt 95 percent of capital gains from taxation. The remaining 5 percent will continue to be taxable at the full corporate rate of 33.33 percent. Subject to some exceptions, Germany exempts, in effect, 95 percent of capital gains realized by a corporate taxpayer on the sale of shares in corporations, whether domestic or foreign. Also, for example, exceptions may be granted for assets that are traded on local stock exchanges. Greece, the Philippines, Mexico, and Zimbabwe are among the countries that tax capital gains but provide relief for assets that are traded on local exchanges. Those exemptions provide incentives for companies to trade on the local exchanges and are used to attract international corporations to local markets. As with tax provisions that

<sup>4</sup>Material in the following paragraphs is drawn from several sources, including PricewaterhouseCoopers, *Corporate Taxes 2004-2005: Worldwide Summaries* (Hoboken, NJ: John Wiley & Sons, Inc., 2004).

**Figure 3**  
**The Distribution of Investments (Equity) by Industry, 2004**



provide benefits to domestic corporations, those preferential treatments of capital gains are used as tools to encourage participation in the local financial infrastructure.<sup>5</sup>

Another popular form of relief is one based on the amount of ownership between corporations, either on a percentage of ownership basis or on the basis of a specific amount invested. The so-called participation exemption countries include Austria, Luxembourg, the Netherlands, the Netherlands Antilles, Sweden, and Switzerland. For example, in the Netherlands, a resident or nonresident company holding at least 5 percent of the shares of another (resident or nonresident) company is generally exempt from Dutch corporate income tax on dividends and capital gains realized on disposition of the shares. Similarly, under the Finance Act of 2002, the United Kingdom exempts from taxation the gains accruing to companies disposing of "substantial shareholdings." To be eligible for that exemption, the investing company must have held a "substantial shareholding" (essentially a 10 percent interest) in the other company for a 12-month period.

Reinvestment can also be a criterion for exempting corporate capital gains. There are several countries that tax capital gains as operating income but allow tax relief if the funds are reinvested according to specific rules, generally if gains on property are reinvested in a like manner. Japan, the United Kingdom, Germany, Belgium,

Egypt, the Netherlands, and Spain all have provided relief for specific kinds of gains that are subsequently reinvested.

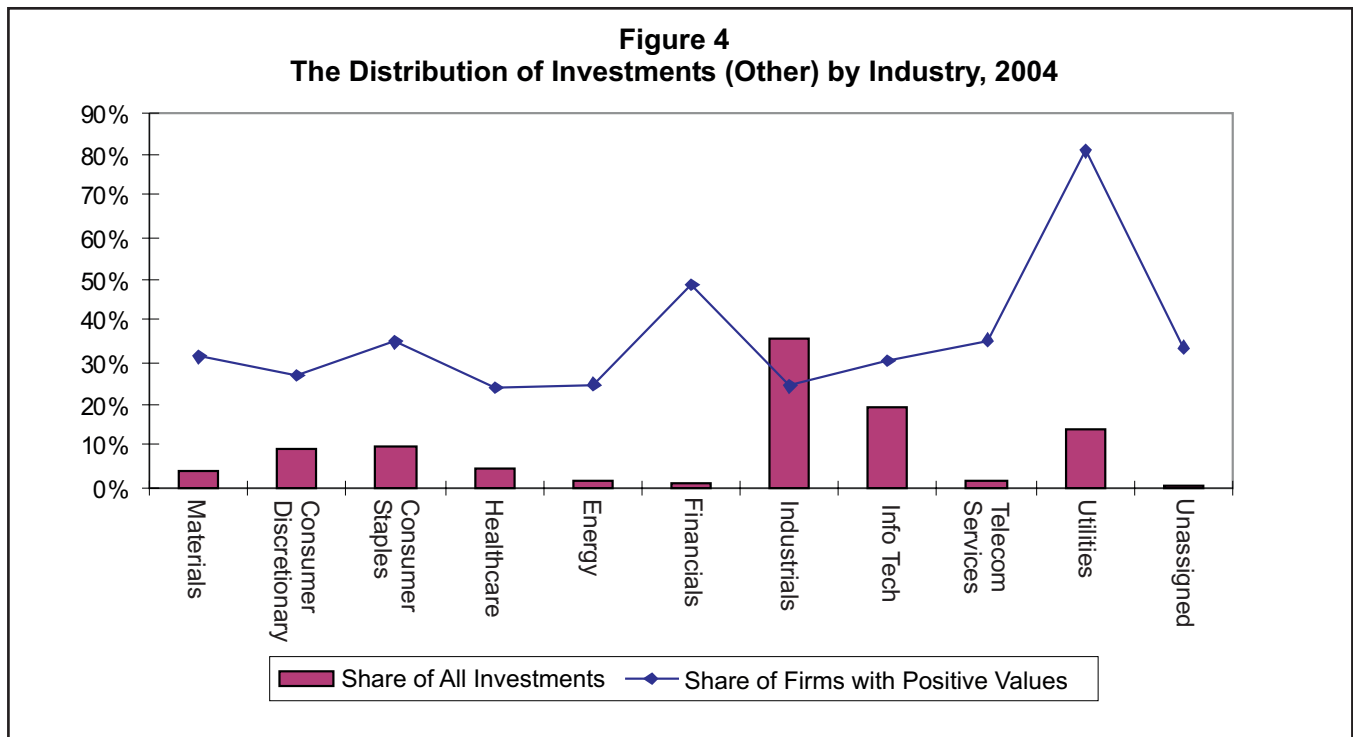
Other countries tax capital gains at the ordinary rate but allow net capital losses to offset ordinary income. That rule provides more immediate benefit to companies that realize a loss because they can reduce their taxable income by deducting the capital loss. Countries with that policy include Japan, Korea, Poland, Croatia, Russia, and Venezuela.

Some countries have established alternative tax rates for all capital gains, usually at a lower rate than the overall corporate tax rate. Those countries include Israel, Greece, and Zimbabwe. As a counterexample, Ireland has a special 20 percent tax rate for capital gains, but only a 12.5 percent general corporate tax rate. Instead of creating a separate rate, some countries, like Canada and South Africa, tax only 50 percent of capital gains at the normal corporate rate. There is a variation of that rule in Pakistan, where 75 percent of short-term gains are taxed as ordinary income and the other 25 percent are exempt from tax.

To keep some incentive for capital gains realization, however, tax rules allow for some beneficial uses of capital losses. Some of those uses are less beneficial to companies than others, such as the U.S. model that allows capital losses to be counted only against capital gains. The United Kingdom, Australia, Argentina, Brazil, and Sweden also tax gains at the overall corporate rate (subject to reinvestment incentives, as in the United Kingdom) and allow capital losses to count only against capital gains. All of those countries, with the exception of Argentina, are similar to the United States in that they allow for carryback or carryforward of unused capital losses. Corporations in those countries may therefore

<sup>5</sup>According to a recent report, the People's Republic of China plans to exempt foreign investors' yuan-based securities from capital gains tax to encourage new investments in domestic bonds and debt. See Rickman (2005).

**Figure 4**  
**The Distribution of Investments (Other) by Industry, 2004**



apply unused losses to previous or future gains, depending on the country-specific restrictions. No matter when the loss is applied, however, it may be netted only against a capital gain.

## VI. Distortions From Taxing Capital Gains

The realization-based nature of the capital gains tax prevents the reallocation of capital across investments. That so-called lock-in effect distorts investor choices because it creates a powerful incentive to defer realizations of gains. Investors may retain an appreciated position even when another investment may provide a superior expected return and lessen the investor's risk by diversifying his investments. In contrast, if an asset falls in value, investors may have an incentive to accelerate selling the asset to benefit from deducting the loss against other income (when allowed). Thus, realization-based taxation provides incentives for selective realizations by individuals. Those incentives operate at least as strongly at the corporate level, and additional distortions result from the unique aspects of corporate holdings in equities.

### A. Efficiency Consequences

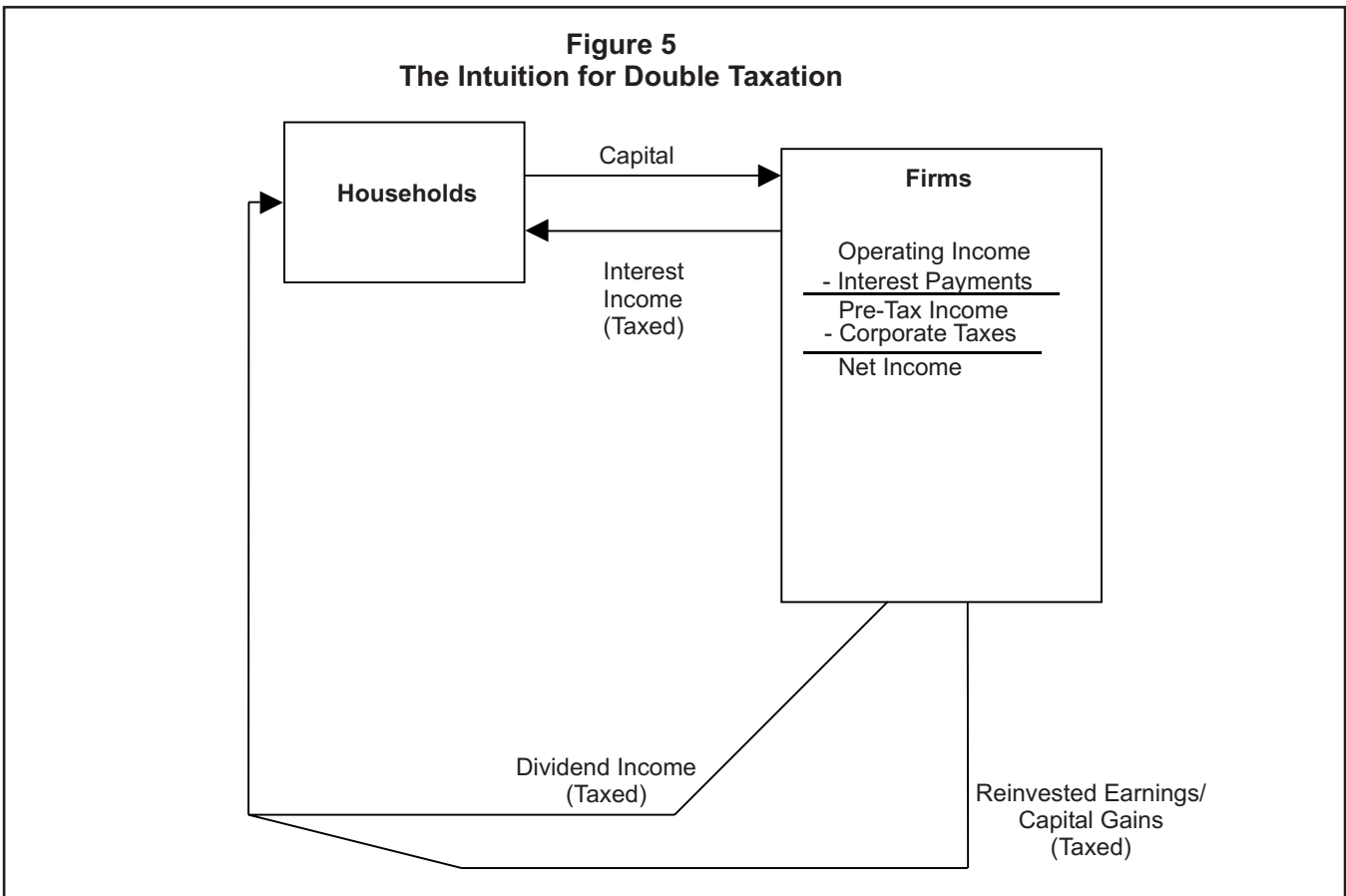
While the lock-in effects of realization-based capital gains taxation are distortionary, and have been understood to operate at the individual level, capital gains taxes are likely to be considerably more distortionary at the corporate level. Corporate investment often differs from the types of investments made by individuals. For individuals, the identity of who owns an asset rarely affects the asset's rate of return, at least for the portfolio investments often considered in discussing the lock-in effect. For corporations, the identity of an owner of corporate assets can often influence the productivity or

return on those assets.<sup>6</sup> Those returns generated from matching specific assets with specific owners add another dimension to the deadweight loss, or lost economic surplus, from corporate capital gains taxation. For example, consider a corporation that is considering selling a subsidiary to another firm. If the current owner has an unrealized capital gain in the subsidiary, the capital gains tax might impede the transaction, even when the potential acquirer has a higher rate of return from owning the subsidiary. When the realization-based capital gains tax discourages transactions, the social cost is the difference in the returns that could be earned by the two different owners.

In addition to the possibility of mismatching in the asset market, the patterns of corporate cross-holdings could be influenced by corporate capital gains taxation. La Porta et al. (1999) document the wide variety of corporate cross-ownership around the world and the prevalence of pyramidal ownership, to which the United States experience is a notable exception. Presumably, the tax on corporate capital gains is an important deterrent to cross-holdings in light of the DRD.<sup>7</sup> In addition to those effects on the patterns of ownership, corporate capital

<sup>6</sup>For the role of owner-specific productivity differences in determining optimal tax rules, see Desai and Hines (2003).

<sup>7</sup>Paul (2003) argues that the triple taxation embedded in corporate capital gains taxation has grown more important recently as U.S. corporations have entered into more relationships that involve intercorporate equity holdings. She also discusses how the repeal of the *General Utilities* doctrine in the Tax Reform Act of 1986 has increased the importance of corporate capital gains taxation.



gains taxes may shape corporate venture capital activity and the overall venture capital environment because of the interactions between corporate venture capital and venture capital more generally.<sup>8</sup>

Myriad capital market imperfections may also exacerbate the efficiency costs of corporate capital gains taxation. Without capital market imperfections, corporations can finance new projects by attracting new investors and there is no wedge between the costs of raising money by going to the external capital markets or by using internally generated funds. Various academic studies have confirmed the preference for internally generated funds because of imperfections such as informational asymmetries or agency concerns. With capital market imperfections, harvesting capital gains can be a preferred source of financing for new projects because they allow for financing without going to external capital markets. Given that corporate capital gain realizations constitute a significant fraction of corporate cash flow, corporate capital gains taxes serve to exacerbate the financing problem of firms that can otherwise access only costly external finance.

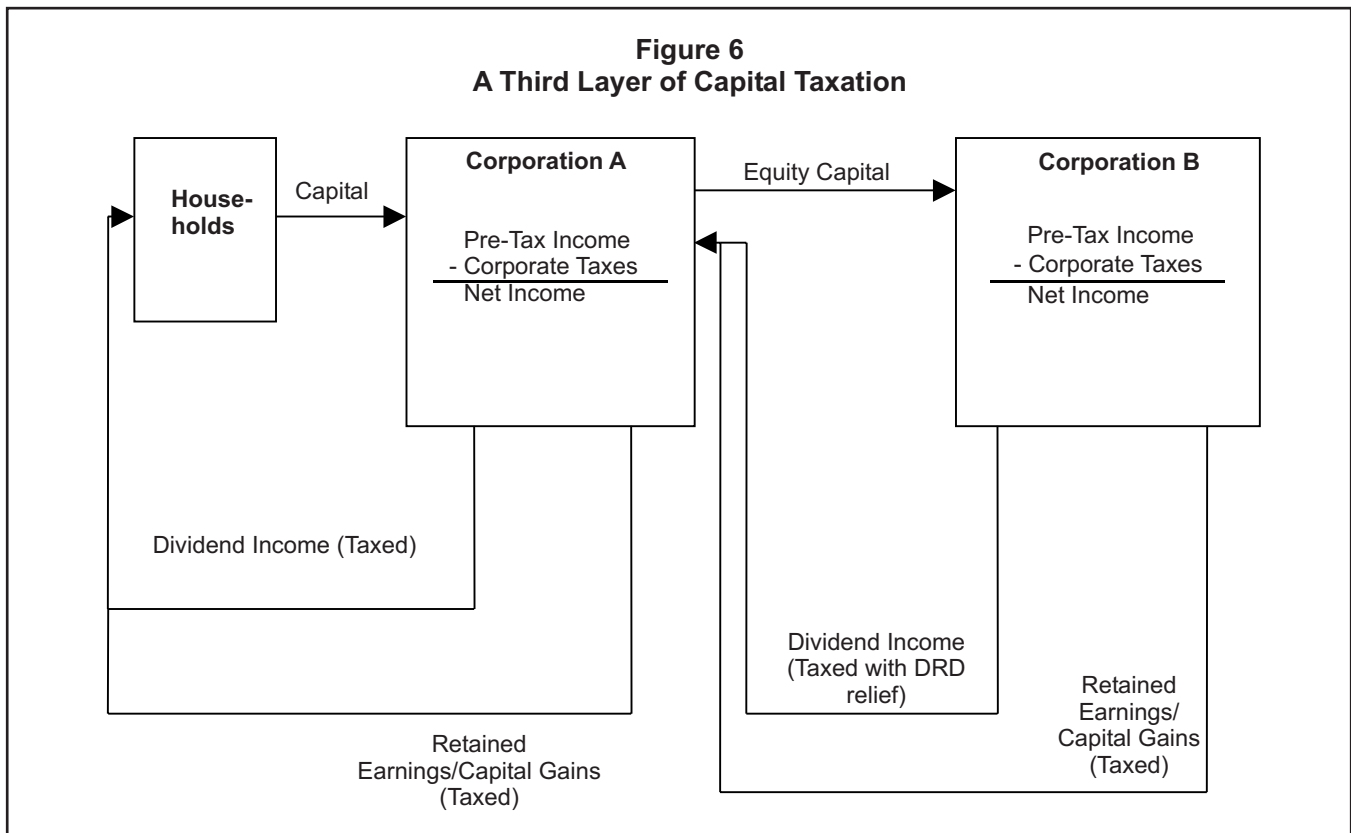
<sup>8</sup>See Gompers and Lerner (2002) and Gompers, Lerner, and Scharfstein (2003).

### B. Corporate Tax Planning Responses

In addition to those distortions to the patterns of asset holdings and their productivity, the corporate capital gains tax also motivates a variety of tax planning responses by corporations. In general, those tax planning responses lead to financial consequences without greatly changing the real activity of the firm. For example, some tax planning tactics may come into play during mergers and acquisitions. In some cases, it is possible to structure an acquisition in a way to defer the realization of capital gains taxes; a common feature in deferring the capital gains tax is that the “seller” accepts stock from the acquirer instead of cash.<sup>9</sup>

The realization-based nature of capital gains taxation also provides an incentive for investors to seek alternatives to selling their investments. One possibility is to enter into a hedging transaction that can reduce the risk of the position and possibly raise cash. Those hedging transactions may be relevant when a corporation obtains shares in another corporation as payment in a corporate

<sup>9</sup>See Scholes, Wolfson, Erickson, Maydew, and Shevlin (2002) for an overview of how capital gains taxes affect mergers and acquisitions.



reorganization.<sup>10</sup> Corporations can execute hedging transactions through either private deals with investment banks or by issuing exchangeable securities.

A third kind of tax planning strategy stemming from the treatment of corporate capital gains is “dividend stripping.” The DRD typically reduces the tax rate on intercorporate dividends by 70 percent, so a corporation facing a 35 percent tax rate on ordinary income faces a 10.5 percent tax rate on dividend income. However, capital losses are deductible against capital gains, so the tax rate at which capital losses are valued may still be 35 percent. The DRD makes corporations a natural clientele to invest in high-dividend yield stocks, such as preferred stock.<sup>11</sup> Also, those clientele effects can determine when a corporation sells stock. For a corporation considering selling shares near the ex-dividend day, the DRD provides an incentive for the corporation to delay the sale until after the ex-dividend day, because that delay will increase the dividend portion of the return and increase the after-tax return.

<sup>10</sup>For example, in 1996 Kerr-McGee acquired stock of Devon Energy in exchange for some oil fields and in 1999 Kerr-McGee issued securities that hedged some of the risk of holding Devon Energy stock (see Gentry and Schizer (2003) for more examples of those transactions).

<sup>11</sup>For evidence consistent with the formation of investor clienteles for dividends, see Dhaliwal, Erickson, and Trezevant (1999).

That discussion of potential avoidance techniques should not lead one to the conclusion that those techniques effectively ensure that the taxes are nondistortionary. In fact, the opposite is the case — the techniques reflect the variety of costly actions firms undertake to avoid corporate capital gains taxes. Despite the availability of those avoidance methods, corporations realized \$128 billion annually of net taxable gains over the 1998-2002 period, implying that avoidance was more costly than simply paying the tax for a large volume of gains.<sup>12</sup> As discussed below, estimates of the tax responsiveness of corporate capital gains realizations are high relative to the tax responsiveness of individual capital gains realizations, and those estimates provide the foundation for assessing the efficiency consequences of the taxes.

<sup>12</sup>Indeed, a full consideration of avoidance technologies by corporations likely increases the level of corporate capital gains realizations. As many commentators, including Bankman (1999), have noted, corporate tax shelters often generate and use capital losses. The purported growth in corporate tax shelters would mean that reported capital gains realizations may significantly understate the total value of corporate capital gains realizations.

## VII. Consequences of Alternate Treatments

Assessing the efficiency and revenue consequences of alternative tax treatments of corporate capital gains requires an estimate of the behavioral response of realization behavior to proposed changes. Those estimates can then be combined with fairly standard public finance intuitions (as in Auerbach (1988) and Eichner and Sinai (2000)) to provide estimates of the revenue and efficiency consequences of possible changes. In the following discussion, two possible changes to the current treatment of corporate capital gains are considered: repeal of the corporate capital gains tax and reduction of the relevant tax rate to 15 percent, to align it with individual tax rates.

The time-series analysis of realization behavior from 1963 to 1997 provided in Desai and Gentry (2004) serves as the foundation for that analysis.<sup>13</sup> In particular, the specification provided in column 6 of Table 3 of Desai and Gentry (2004) accounts for a variety of macroeconomic and capital market conditions and provides a coefficient of -3.92 on the corporate capital gains rate. That coefficient estimate corresponds to a tax elasticity of -1.13, which implies that a 10 percent reduction in the capital gains tax rate is associated with 11.3 percent greater capital gains realizations. Those additional realizations reflect that lower capital gains tax rates reduce the tax consequences of selling appreciated capital assets, thereby reducing the lock-in effect. An estimated elasticity of -1.13 stands at the high end of the range of elasticities derived for individual capital gains realizations (see Eichner and Sinai 2000)). It is logical that corporate capital gains realizations would be more sensitive to tax rates than would individual capital gains realizations, given the greater sophistication of corporate tax planning. Still, it is worth reconsidering the Desai and Gentry (2004) estimate before applying it to produce estimates of revenue and efficiency consequences of potential reforms.

Specifically, the -1.13 elasticity is identified from behavioral responses to changes over time in the taxation of corporate capital gains. Hence, that estimate may incorporate the effects of temporary responsiveness to tax rate changes that are not reflective of the permanent responses that properly serve as the foundation of estimates required for efficiency and revenue analysis. Also, those time-series estimates typically exceed corresponding estimates produced by cross-sectional specifications that compare the realization behavior of taxpayers in the same year facing differing capital gains tax rates. For example, Eichner and Sinai (2000) offer evidence that permanent responses are two-thirds as large as the time-series estimates for individual capital gains realizations. Hence, instead of taking the measured tax elasticity of -1.13 to represent the long-term responsiveness of corporate capital gains realizations to tax rate changes, it is probably more appropriate to use a figure that is only two-thirds as large. Consequently, the analysis that fol-

<sup>13</sup>The data on which the Desai and Gentry analysis is based is annual data drawn from the IRS and is described above.

lows uses a long-run realization elasticity of -0.75 to evaluate the effect of tax changes on efficiency and tax revenue.

The summary results of those calculations are described in Table 1 on the next page. In addition to a baseline set of calculations associated with an elasticity of -0.75, the table considers alternative elasticities of -0.50 and -0.90. Total long-term capital gains realizations by corporations have varied over the last five years of available data (from 1998 to 2002) from as much as \$174 billion in 2000 to \$76 billion in 2002. Using the five-year average of \$128 billion of realizations per year, the top panel of the table considers the level of forgone realizations associated with the current taxation of corporate capital gains at a 35 percent tax rate.

Forgone realizations represent the realizations that are deterred by the current system of taxation, the estimated value of which rises as the magnitude of the realization elasticity rises.<sup>14</sup> The efficiency cost (deadweight loss) associated with the taxation of capital gains is calculated as the product of the tax wedge (35 percent in the case of a repeal), forgone realizations (\$116.6 billion in the base case) and one-half.<sup>15</sup> For the baseline case, the current system of corporate capital gains taxation generates \$20.4 billion a year in efficiency losses from the lock-in effect.

Repeal of the corporate capital gains tax is most easily considered. Repeal of that tax would create an additional \$116 billion per year of capital gains realizations and would be associated with efficiency gains that correspond to the deadweight losses of the current system: \$20.4 billion per year.

As the bottom panel indicates, reducing the corporate capital gains tax to 15 percent would stimulate \$66 billion per year of additional capital gains realizations.<sup>16</sup> That alternative would reduce, but not eliminate, deadweight losses associated with lock-in effects. Accordingly, the efficiency gain of such a transition is the difference between current deadweight losses and the deadweight losses under the alternative system. For the baseline elasticity of 0.75, that efficiency gain is \$16.7 billion a year.

<sup>14</sup>Revenue and efficiency effects are calculated for different elasticities by linearizing realization responses around the point at which realizations are \$128 billion per year. Thus, the \$116.6 billion greater realizations associated with repeal of corporate capital gains taxes with a -0.75 elasticity corresponds to  $(-3.92) \times (2/3) \times (35\%) \times (\$128 \text{ billion})$ , where the 3.92 represents the coefficient estimate from the baseline regressions in Desai and Gentry (2004).

<sup>15</sup>The formula for calculating the efficiency cost of a tax provision is premultiplied by one-half because the formula essentially measures the area of a triangle representing potential economic surplus from value-enhancing transactions that do not take place because they become unprofitable due to the associated taxes. Auerbach and Hines (2002) review the theory and practice of measuring deadweight losses due to taxation.

<sup>16</sup>That calculation corresponds to  $(-3.92) \times (2/3) \times (20\%) \times (\$128 \text{ billion})$ , in which 20 percent is used because a new capital gains tax rate of 20 percent would represent a tax rate reduction of 20 percent.

**Table 1**  
**The Efficiency Consequences of Alternative Treatments of Corporate Capital Gains**

	<b>Estimated Elasticity</b>	<b>Foregone Realizations</b>	<b>Deadweight Losses</b>		
Existing Treatment	0.50	77.7	13.6		
	0.75	116.6	20.4		
	0.90	139.9	24.5		
	<b>Estimated Elasticity</b>	<b>Increased Realizations</b>	<b>Deadweight Losses</b>	<b>Efficiency Gain</b>	<b>Revenue Loss</b>
Repeal of Corporate Capital Gains Taxes	0.50	77.7	0.0	13.6	-44.8
	0.75	116.6	0.0	20.4	-44.8
	0.90	139.9	0.0	24.5	-44.8
Reduction to 15% Tax Rate	0.50	44.4	2.5	11.1	-18.9
	0.75	66.6	3.7	16.7	-15.6
	0.90	79.9	4.5	20.0	-13.6

What are the revenue consequences of those changed realizations?<sup>17</sup> The revenue consequences of corporate capital gains tax reductions are easily separated into lost revenues from reduced rates on realizations that would have occurred in the absence of tax reductions, and increased revenues from realizations that took place because of the tax reductions. The net calculations imply that reducing the corporate capital gains tax rate to 15 percent would reduce total tax collections annually by \$15.6 billion, whereas the overall elimination of corporate capital gains would reduce tax collections by \$44.8 billion. The \$44.8 billion corresponds to the product of the dollar value of realizations (\$128 billion) and the tax rate reduction when corporate capital gains taxes are eliminated (35 percent). Similarly, \$15.6 billion corresponds to the sum of two amounts: the loss in revenue equal to the product of current realizations (\$128 billion) and the tax rate reduction under that scenario (20 percent), and the gain in revenues equal to the product of new realizations under that scenario (\$66.6 billion) and the new tax rate (15 percent).

How are those efficiency consequences translated into gains that are more easily understood? The share of income accruing to labor through wages and salaries and benefits (relative to capital) has demonstrated limited variation over the last half-century and has reliably

averaged 70 percent.<sup>18</sup> It is appropriate to apply that distribution to the efficiency gains associated with corporate capital gains tax reductions, because those efficiency gains represent greater business productivity that is distributed to factors of production. As such, the efficiency gains of \$16.7 billion and \$20.4 billion would correspond to increased labor income of \$11.7 billion and \$14.3 billion, respectively. Those annual gains result from reduced distortions to corporate financing and investment decisions and the enhanced productivity arising from the reallocation of assets.

The previous calculations consider permanent changes to the tax treatment of corporate capital gains. How would those calculations change if the anticipated policy change were a reduced tax rate for a temporary period (as in the case of the section 965 repatriation tax break under the American Jobs Creation Act of 2004 and the Homeland Reinvestment Act)? Such a temporary change would engender a larger increase in realizations during the window than under a permanent change, because corporations would accelerate realizations to benefit from the temporary relief.<sup>19</sup> That increased relative level of realizations would stimulate greater revenues than forecast under the baseline case of permanent changes. During the window of reduced taxation, foregone revenue on expected realizations would be the same as under a permanent change while additional revenues from new realizations would be greater than the baseline case, combining to reduce the tax revenue cost of the tax relief.

### VIII. Conclusions

The prevailing taxation of corporate capital gains on realization creates an additional layer of taxation on the equity holdings of corporations. Equity income, which is already subject to a double layer of taxation, is further penalized when held through corporations and earned in

<sup>17</sup>To perform those calculations, it is critical to separately identify marginal tax rates and average tax rates, particularly in the individual capital gains setting, as emphasized by Auerbach (1988). Marginal tax rates — the tax rates on the last dollars of income — influence realization behavior, whereas average tax rates influence total tax obligations. Average and marginal tax rates differ in the individual income tax largely because of the progressivity of the tax system, so a low-income taxpayer whose capital gains realizations are just sufficient to push her into the top tax bracket will nonetheless face a somewhat lower average tax rate on capital gains, because many of the gains are taxed according to lower brackets. While the corporate income tax has a progressive schedule, the vast majority of corporate income, and corporate capital gains, are earned by corporations paying the top statutory tax rate, and for whom average and marginal tax rates are nearly identical.

<sup>18</sup>See Poterba (1998) for further elaboration on the history of capital and labor income shares in the United States.

<sup>19</sup>For evidence on the greater responsiveness to temporary changes, see Burman, Clausing, and O'Hare (1994).

the form of capital gains. The unique nature of corporate holdings, their interactions with financing frictions, and the greater responsiveness of corporations to taxes create additional distortions relative to the distortions usually analyzed with respect to individual capital gains. Unrealized corporate capital gains are increasing and other countries appear to have provided relief from that additional layer of taxation.

Reduced taxation of corporate capital gains would induce large additional realizations of capital gains that would facilitate reallocation of capital to more productive uses. The sizable estimated efficiency gains from alternative treatments of corporate capital gains — from \$17 to \$20 billion — reflect those potential gains. For a reduction to a 15 percent tax on corporate capital gains, the ratio of efficiency gains to revenue losses is particularly attractive. The rising level of unrealized corporate capital gains, the relatively generous treatment provided by many other countries, and the large potential efficiency gains of alternative treatments suggest that a reconsideration of the corporate capital gains tax rules is long overdue.

## Appendix A

### The Tax Treatment of Corporate Capital Gains<sup>20</sup>

In determining the tax burden on corporate capital gains, three elements are critical: the definition of capital gains income for corporations; the applicable tax rate on corporate capital gains income; and the rules for netting capital gains with other sources of income, including how capital gains and losses interact with loss carryforward rules. This appendix addresses each of those elements in turn and then puts them in historical perspective.<sup>21</sup>

#### A. Definition of Capital Gains

Capital gains or losses arise from the sale of capital assets. Capital assets are defined as all assets *except*: (1) inventory; (2) accounts or notes receivable through the ordinary course of business; (3) real or depreciable property used in a business; (4) copyright, literary, musical, or artistic compositions held by the creator; and (5) some publications of the U.S. government.<sup>22</sup> The major categories of capital assets include: (1) investment assets, such as stocks and bonds; (2) assets (including land) held for long-term investment rather than commercial purposes; (3) self-created patents (see section 1235); and (4) goodwill and going-concern value created by a firm.

<sup>20</sup>Drawn from Desai and Gentry (2004).

<sup>21</sup>The discussion of the tax rules for corporate capital gains focuses on the regular corporate income tax without considering the effects of the alternative minimum tax. In general, under current tax rules, capital gains realizations do not generate preference items for the AMT. However, for the sale of depreciable assets, the AMT uses slower depreciation schedules that tend to result in smaller gains (or larger losses) from the sale of those assets. That difference in depreciation schedules tends to reduce the tentative AMT tax liability for a corporation that sells depreciable assets.

<sup>22</sup>IRC section 1221.

In addition to the sale of capital assets, capital gains can arise from the sale of real or depreciable property (so-called section 1231 assets) under some circumstances. If those assets are sold for a loss (for example, the sales price is less than the basis after adjusting for depreciation), the loss is considered ordinary in character. If those assets are sold for a gain relative to the adjusted basis, the character of the income depends on the recapture rules. To the extent that the gain arises from deductions for previous depreciation, the gain is considered ordinary income; however, for gains in excess of the amount of previous depreciation, the gain is considered capital in character. The logic behind the recapture rules that classify gains associated with previous depreciation as ordinary income is that the firm has previously deducted the depreciation allowance from ordinary income, but selling the asset for more than its adjusted basis suggests that the depreciation allowances were taken faster than the asset actually depreciated.<sup>23</sup>

A critical element of the definition of a capital gain is that it depends on an observable transaction, typically the sale of an asset. The realization-based nature of capital gains taxation creates numerous tax planning incentives. It also complicates measuring the annual effective tax rate on capital gains, because the holding period influences the present value of the tax liability associated with owning the asset. When statutory tax rates do not increase over time, the ability to defer the realization of gains reduces the tax burden on the investment.

#### B. Tax Rates on Corporate Capital Gains

Unlike individuals who face lower tax rates on capital gains income than on ordinary income, U.S. corporations do not receive preferential tax rates on realized capital gains. Net realized capital gains are added to ordinary income in computing the firm's taxable income.<sup>24</sup> Given that corporations do not receive a preferential tax rate on capital gains income relative to ordinary income, the distinction between capital income and ordinary income is often not critical for a firm's tax liability. However, as discussed below, the character of income affects the types of income that can be netted against other types of income and the rules for how firms with net losses can use losses to offset previous or future income.

#### C. Capital Gains, Losses, and Ordinary Income

Much of the complexity of taxing corporate capital gains arises from the rules associated with matching different types of capital gains and losses (for example,

<sup>23</sup>The recapture rules are especially important when depreciation allowances for tax purposes are accelerated relative to economic depreciation and when capital gains income faces a lower tax rate than ordinary income. Both of those conditions held before 1986 and created incentives for firms to "churn" assets by depreciating new assets and then selling them for a gain. For an analysis of those incentives and the role of the recapture rules, see Gordon, Hines, and Summers (1987).

<sup>24</sup>Technically, for historical reasons, corporations have the option of adding capital gains to ordinary income or facing an alternate tax rate of 35 percent, which is the same as the current top corporate marginal tax rate.

short-term versus long-term), pooling different types of income, and carrying losses forward and backward. The general rule is that ordinary income and losses, capital gains and losses, and gains or losses on section 1231 assets are aggregated separately. Within capital gains, taxpayers separately aggregate short-term (defined as having a holding period of less than one year) capital gains and losses and long-term capital gains and losses (including any capital gains from the disposition of section 1231 assets). If one of the holding period baskets results in a net gain and the other holding period basket results in a net loss, the net loss in one basket can be used to offset the net gain in the other basket.

After completing that two-step netting process, a net capital gain is included in taxable income; however, corporations are not allowed to use a net capital loss to offset ordinary income.<sup>25</sup> Instead, corporations with net capital losses must apply the carryback and carryforward rules. Current law allows capital losses to be carried back to offset net capital gains in the previous three years or carried forward to offset net capital gains in the subsequent five years.<sup>26</sup> Because the tax law does not allow for an interest calculation to compensate for the time value of money, carrying losses forward is less valuable than an immediate tax refund or deduction against ordinary income (assuming the firm's statutory tax rate is constant over time).

In general, the netting rules give corporations a preference for capital gains income over ordinary income but ordinary losses over capital losses. Capital gains have an advantage over ordinary income in their ability to offset capital losses. In contrast, ordinary losses are preferable to capital losses since they can offset ordinary income or capital gains income while capital losses can only offset capital gains via the netting rules for capital gains.

#### D. Corporate Capital Gains Tax Policy Over Time

Tax rules governing corporate capital gains have changed over time in a variety of ways. One major change is whether corporate capital gains face a preferential rate relative to ordinary income. Before the Tax Reform Act of 1986, corporations could base their tax liability on having net capital gains (that is, net long-term capital gains in excess of net short-term losses) taxed at an alternate tax rate. The corporation would pay the minimum of its tax liability including net capital gains as ordinary income and using the alternate tax rate. In 1986, that alternate tax rate was 28 percent while the maximum tax rate on ordinary income was 46 percent. Between 1954 and 1986, the alternate tax rate varied between 25 percent and 30 percent.

It is worth noting two things about the alternate tax rate system. First, because the same alternate rate is

applied to all firms, corporations with relatively low income might prefer the ordinary income tax rate to the alternate tax rate because of the graduated corporate tax rate schedule. Second, because the definition of net capital gains uses the distinction between long- and short-term capital gains, the holding period distinction was more important before 1986 than after 1986, with corporations preferring to realize long-term capital gains rather than short-term capital gains, to qualify for the lower alternate tax rate.<sup>27</sup>

#### References

- Atkins, Allen and Edward Dyl, 1997, "Turnover Costs and Holding Periods for Common Stocks," *Journal of Finance* 52:309-325.
- Auerbach, Alan, 1988, "Capital Gains Taxation in the United States: Realizations, Revenue, and Rhetoric," *Brookings Papers on Economic Activity* No. 2, 595-631.
- Auerbach, Alan J. and James R. Hines Jr., 2002, "Taxation and Economic Efficiency," in Alan J. Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, volume 3 (Amsterdam: North-Holland), 1347-1421.
- Bankman, Joseph, 1999, "The New Market in Corporate Tax Shelters," *Tax Notes*, June 21, 1999, p. 1775.
- Burman, Leonard E., Kimberly A. Clausing and John F. O'Hare, 1994, "Tax Reform and Realizations of Capital Gains in 1986," *National Tax Journal* 47, No. 1: 1-18.
- Desai, Mihir A. and William M. Gentry, 2004, "The Character and Determinants of Corporate Capital Gains," in James Poterba, ed., *Tax Policy and the Economy* 18 (Cambridge, MA: MIT Press), 1-36.
- Desai, Mihir A. and James R. Hines Jr., 2003, "Evaluating International Tax Reform," *National Tax Journal* 56, no. 3: 487-502.
- Dhaliwal, Dan S., Merle Erickson, and Robert Trezevant, 1999, "A Test of the Theory of Tax Clienteles for Dividend Policies," *National Tax Journal* 52 issue 2, 179-194.
- Eichner, Matthew and Todd Sinai, 2000, "Capital Gains Tax Realizations and Tax Rates: New Evidence from Time Series," *National Tax Journal* 53 issue 3 part 2, 663-682.

<sup>27</sup>As evidence that the holding period distinction affected behavior, consider the relationship between the difference between the top ordinary income tax rate and the long-term capital gains tax rate and the ratio of net short-term gains to net long-term gains (taken from the Corporate Statistics of Income data described below). From 1954 to 1986 the difference between the ordinary income tax rate and the capital gains tax rate for corporations ranged from 18 percentage points to 27.8 percentage points and the annual ratio of short-term to long-term gains averaged 0.057. From 1988 to 1998 there was no difference in the tax rates and the ratio of short-term to long-term gains was 0.20. Thus, when it was more advantageous to recognize long-term capital gains instead of short-term gains (that is, during the earlier years), short-term gains were a much smaller percentage of total realizations than when firms were indifferent to the holding period.

<sup>25</sup>In contrast, individuals have a limited opportunity to offset ordinary income with capital losses.

<sup>26</sup>In contrast, individuals who exceed the annual limit on using capital losses to offset ordinary income have an unlimited number of years to carryforward capital losses to offset future capital gains. Also, the time limits on corporate carryovers for capital gains differ from those for operating losses. Operating losses can be carried back 2 years or carried forward 20 years.

## COMMENTARY / SPECIAL REPORT

- Gentry, William M. and David M. Schizer, 2003, "Frictions and Tax-Motivated Hedging: An Empirical Exploration of Publicly-Traded Exchangeable Securities," *National Tax Journal* 56 issue 1, 167-195.
- Gompers, Paul and Josh Lerner, 2002, "The Determinants of Corporate Venture Capital Success: Organizational Structure, Incentives and Complementarities," in Randall Morck, *Concentrated Corporate Ownership* (Chicago: University of Chicago Press).
- Gompers, Paul, Josh Lerner, and David Scharfstein, 2003, "Entrepreneurial Spawning: Public Corporations and the Genesis of New Ventures, 1986-1999," NBER Working Paper No. 9816.
- Gordon, Roger H., James R. Hines, Jr., and Lawrence H. Summers, 1987, "Notes on the Tax Treatment of Structures," in Martin Feldstein, ed., *The Effects of Taxation on Capital Accumulation* (Chicago: University of Chicago Press).
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer, 1999, "Corporate Ownership around the World," *Journal of Finance* 54, 471-517.
- Paul, Deborah L., 2003, "Triple Taxation," *The Tax Lawyer* 56, 571-610.
- Poterba, James, 1998, "The Rate of Return to Corporate Capital and Factor Shares: New Estimates Using Revised National Income Accounts and Capital Stock Data," *Carnegie-Rochester Conference Series on Public Policy* 48, June issue, 211-246.
- PricewaterhouseCoopers, 2004, *Corporate Taxes 2004-2005: Worldwide Summaries* (Hoboken, NJ: John Wiley & Sons, Inc.).
- Rickman, Johnathan, 2005, "China to End Capital Gains Tax on Securities for Foreign Investors," *Doc 2005-25179*, 2005 WTD 240-2.
- Scholes, Myron S., Mark A. Wolfson, Merle Erickson, Edward L. Maydew, and Terry Shevlin, 2002, *Taxes and Business Strategy: A Planning Approach* (Upper Saddle River, NJ : Prentice Hall).