

# Equity Tax and Shelter

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This article expands [Levin, Tax Notes 97] and is available at <http://www.cs.bu.edu/faculty/lnd/civic/eqtx.html>

## Abstract

Taxes have major costs beyond the collected revenue: deadweight from distorted incentives, compliance and enforcement costs, etc. A simple market mechanism, the *Equity Tax*, avoids these problems for the trickiest cases: corporate, dividend, and capital gains taxes. It exploits the ability of the share prices to reflect the expected **true** annual return (as perceived by investors, not as defined by law) and works only for publicly held corporations. Since going or staying public cannot be forced, and for some constitutional reasons too, the conversion to the system must be a voluntary contract. Repeated reconversions would be costly (all capital gains are realized) and thus rare. The converts and their shareholders pay no income, dividend, or capital gain taxes. Instead, they give the IRS, say, 2% of stock per year to auction promptly. Debts are the lender's assets: its status, not the debtor's, determines their equity- or income-tax treatment. This system looks too simple to be right. However, it does have no loopholes (thus lowering the revenue-neutral tax rate), no compliance costs, requires little regulation, and leaves all business decisions tax neutral. The equity tax enlarges the pre-tax profit since this is what the taxpayers maximize, not a different after-tax net.

## 1 Introduction

Casual readers may skip this section which does not discuss the mechanism at hand, only puts it in a context of problems faced by other approaches.

Due to its limited scope, this article ignores many important issues of taxation. Such are matters, often discussed in the context of tax reform, that concern the tax spending process more than the tax levies – for instance the benefit principle, or the incentive of democratic governments to use taxation for transfers from groups with greater ability to pay to groups with greater ability to vote. I ignore special externalities (harm or benefit to others, specific to particular economic activities) which might call for special taxes, tax breaks, or other remedies. I do not discuss the (seemingly small) incidence effects of the reform and

pay limited attention to the transition problems.

The following introduction is also simplistic in being oblivious to the popular models and their delicate, if not uniformly realistic, assumptions. Much of their complexities come ultimately, if sometimes indirectly, from treating men differently than all other resources. I can afford to ignore these distinctions due to my care in avoiding all issues related to the taxation of human capital. Besides, I cannot benefit from studying distortive effects of taxes (see, e.g., [Sandmo]): equity tax has none except for the total capital the sector absorbs at given tax rates. This alleviation of the distortive effects of general taxes on corporations and investors is my main goal. It is prominent in economic literature and lately in political media, though the proposals typically introduce greater distortions than those they claim to remove.

### 1.1 Corporate Income Tax Problems

Corporate income is spent in various ways: one part (Expenses) is consumed by the needs of producing the current taxed income; another (Dividends) is distributed among the shareholders; the third (Reinvestment) is invested in growth, renovation, debt repayment, stock repurchase, etc.; the Masked part is a hidden reinvestment, treated as expenses due to the subtleties of the tax law and depreciation rules. Most tax systems tax Dividends to the shareholder and spare the Expenses. The present U.S. law also taxes Dividends and Reinvestment to the corporation. The Reinvestment and Masked parts are accumulated in the stock value; the present system, as well as some new proposals, may tax them eventually when they are realized as capital gains.

The income tax is distortive. The laws, however complicated, cannot adequately expose Masked income; it remains, whether large, small, or negative. The incentive to maximize it stands behind many otherwise detrimental business decisions and probably behind double taxation of capital gains, gifts, and estates. It may also motivate the double taxation of dividends without which the double taxation of capital gains would promote divestment thorough higher dividends to avoid stock price appreciation. This distortion reduces net profits and tax revenue, convolutes accounting and decision making.

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## 1.2 Capital Gains and Dividends

The awkward double taxation can be avoided in many ways, e.g., by adding the taxable corporate income to the inflation-adjusted share cost basis, deducting the dividends from the latter and taxing only their excess. Various proposals are actively studied (see, e.g., [Graetz, Warren]).

This would not remove disincentive to realize gains or any problems of corporate income tax. If the corporate tax is dropped instead, the dividends/gains disincentive becomes the main deadweight and fairness problem. The dividend and capital gain taxes may differ drastically for firms of similar size and operation (and, thus, of similar share in consumption of public goods) depending on their dividend policy and stock trade frequency. This frequency determines how often the nominal tax rate is compounded, which has a major effect on the effective tax rate.

Suppose a stock portfolio gains 10% per year and is taxed annually at 30% of gain, i.e., 3% of value. It will grow at a 7% rate, ending up ten times smaller than if taxed 30% after 95 years of 10% growth. The strong disincentive for moving capital among investors and corporations harms them with no public purpose.

Dividend and capital gains taxes are also almost voluntary. Nothing forces companies to pay dividends and many do not. They can spend all income (say, by buying their own stock) and let the investors choose when to realize it by selling shares. Much of the stock may avoid trade for generations.

## 1.3 Radical Recipes

The oldest proposed remedy to the tax-caused distortions is to reject taxation altogether along with all other forms of coercion. This extreme libertarian idea is far from even the libertarian mainstream (see [Boaz] for a good collection of libertarian sources). I will mention its much discussed faults since similar elements are present in more popular proposals. The freedom from coercion, far from being a natural right (and quite unknown in nature), is not free. Thus, private services must replace public goods such as defense from extralegal and foreign would-be “tax collectors”. The decentralization of power would raise many obvious issues, unimportant here. Another aspect, however, is fundamental.

Unprotected economic power, like un-refrigerated food, creates major externalities in and of itself. Not only is it hard to deny defenseless neighbors the free ride on one’s defense arrangements, it is also hard to prevent them from increasing the pay-off to the conqueror and, consequently, the cost of an effective

deterrent. The sudden and unprotected affluence of “new Russian businessmen” breeds racket structures which also endanger their neighbors and public order. Kuwaiti oil tempts foreign aggression endangering non-owners of oil and world peace. General taxes remedy such externalities through coercive funding of common defense, public order, and other public goods. This coercion is both justified as a defense against negligently harmful neighbors and violates no natural freedoms, since the freedom from coercion does not come free. The argument can even be stretched to justify public provision of other public goods when demanded by efficiency: the conquest pay-off and the cost of deterrent depend on the value of the best possible use of the resources, including the optimal level of publicly provided goods.

Many popular ideas about non-distortive taxation are mythical. Lump sum taxes are an example. One cannot assign lump sums arbitrarily. E.g., taxes cannot exceed what a taxpayer has or even come close to that, lest he runs away or shoots the collector. So, one must use some rational method for assigning the lump sums. Clever taxpayers will guess it beforehand and distort their behavior for tax advantage. There are myths of inelastically supplied resources, such as land area, or head count. As a tax base, they are supposedly immune to distortions: nobody would commit suicide or shrink the Earth’s surface to escape a tax. Such ideas are misleading: one cannot collect taxes from unused land, unemployed people, or postponed children; meanwhile overtaxing can render these resources quite elastic. In fact, it is easy to believe that in a long run all resources have great elasticity. Such tax systems avoid distortion in allocation of untaxed resources at the expense of an extreme distortion in the allocation between taxed and untaxed types.

## 1.4 Consumption Taxes

A less radical idea of similar nature is presently popular. It would scrap the income tax system in favor of one of the several forms of consumption taxes, such as value-added, sales, flat, etc. These taxes exempt all non-human resources from their base which consists entirely of the cost of labor (beside pre-existing capital). Their distinct aspect is the elimination of tax on reinvested income. (Investing labor income also defers its taxation until the proceeds are withdrawn for consumption.) Thus, companies reinvesting all income grow tax-free, subsidized by other taxpayers through free public services.

Consumption taxes too remove the distortions in allocation of untaxed resources (investment in non-human capital) at the price of extreme distortion of

the choice between investment (in non-human capital) and consumption (i.e., investment in human capital). It is hard to guess why this distortion is seen as acceptable. Perhaps the pressure toward a smaller (and less educated) but richer population seems attractive. Or perhaps human capital is perceived as a more evenly distributed base of taxation, less deviant from taxpayers' representation in the budget process. Widespread confusion may also play a role.

#### 1.4.1 Progressivity

Some forms, such as value-added or sales taxes, have an additional problem: inaccurate valuation of labor tax base. Labor is a peculiar resource. Human mind admits only very inefficient external control. Besides, organized humanity claims collective ownership of basic human rights and freedoms and outlaws their transfer. Due to this public element in the otherwise private human capital, it can be measured and taxed only indirectly through the income it generates. Even this income is hard to determine since a part of one's earnings is spent on sustaining the original capital against hunger, physical and psychological fatigue, illness, aging (by raising two kids), etc. Another part is used for investment in capital, both human (through better education, bigger families, etc.) and non-human. I designate assets to taxpayers loosely, including in this part gifts, i.e., investments in assets the taxpayer has interest in but not a control over. Yet another part is wasted on various indulgences. It still may contribute to the earner's value to the extent that indulgences can be externally suppressed, freeing this part for investment.

The structure of basic human needs has a degree of uniformity, enabling progressive taxation of earnings to address this income ambiguity with relative grace. Proportional taxes are most adequate for unearned income. For earned income, however, they include in their base what is really an operating cost, containing a sort of a head tax element. In the long run, when head count becomes elastic, such taxes are too distortive to be used for general budget purposes. (A benefit argument may justify their specialized use, e.g., financing social safety nets with FICA.) This problem is addressed to some extent in [Hall, Rabushka] through its 0-tax bracket.

### 1.5 Property Taxes

Another, rarely advocated, type of partial taxes is based on wealth. They do just the opposite: spare labor and target non-human capital. Since the idea of pressing for larger but poorer population seems

unattractive, a possible motive may be to further shift the burden away from the electoral majority.

Unlike labor, wealth can be taxed based on either its market value or the generated income. The difference is not significant: investors, seeking the best return, price commercial property according to its annual income potential including value appreciation. Taxing the price or income, the whole iceberg or just its tip at a tenfold rate, is the same.

Some assets such as a family home or a private business produce fruits that are hard to separate from those of the owner's labor, rendering separate taxation of labor and wealth difficult. Combined, labor and wealth taxes form an income tax, based on all income whatever the source. Then, neither human uniformity nor market value of wealth can help to assess their economic power for a graceful taxation.

## 2 A Different Mechanism

### 2.1 Consistent Valuation is Impossible.

The long term elasticity of resources has a notable exception: the resource the taxpayer maximizes. Based on it, a tax with a less than 100% marginal rate would be non-distortionary.<sup>1</sup> Let us call this maximized resource the value of a taxpayer's assets.<sup>2</sup> We can treat it as the market value for alienable assets (which taxpayers can sell if somebody else values them more) and ignore the difficulties of valuating human assets discussed in section 1.4.1.

Since tax needs to be collected periodically, it would help if taxpayers' goals were consistent, say, for one and two years periods. However, here lies a **fundamental** difficulty, full understanding of which has not yet spread in the economic literature. Let me illustrate it with an example. In playing chess the first idea that comes to mind is to understand how to compute the value of each position, and to choose each move in a way that maximizes this value. The value must be consistent across a move, i.e. agree with the best value of the next position one move can achieve. Such consistent valuation algorithms do ex-

<sup>1</sup>This observation requires some assumptions about the taxpayer: any aspect of a tax can distort the behavior of an erratic taxpayer; in fact, a paternalistic distortion would be a temptation to the taxing power in such a case.

<sup>2</sup>Consumption is often added as a separate term of utility. This should not be done here since human assets are included. Most consumption serves to maintain, restore, and grow human capital and so, adding it explicitly would amount to counting it twice. Utility may also include wasteful consumption, such as drug use, but we may treat it instead as negative income on human weaknesses. All this is irrelevant anyway for the equity tax which ignores human assets.

ist, but as [Fraenkel, Lichtenstein] proved, must take computation time that is exponential in the size of the chess board they treat as variable. Exponent is quite a dramatic bound: the entire known Universe contains far fewer atoms than ten to the number of letters in this sentence. Note that this problem is unrelated to the sufficiently recognized and studied issue of the stochastic veil.

Life is more complex than chess and taxpayers cannot use valuation methods that powerful. So, they must be inconsistent in their valuations as is amply evident from the stock market behavior. How then can the Law value assets in a way consistent with the motives of rational taxpayers (if such can be defined at all)? In fact, it cannot, which may explain why a non-distortionary tax system has not been achieved yet. What this article suggests, is that for some assets such valuation is not necessary.

## 2.2 In-kind Taxation

If tax liability is expressed in-kind, rather than in national currency units, it could avoid the need for any distortive valuation methods. The use of a non-market mechanism for translation of in-kind assets into the currency **is** the needless source of distortion.

An example of an in-kind tax is military draft, if we ignore that it singles out healthy human males from all other assets. Draft, however, involves slavery and thus creates a far greater inefficiency than tax-caused distortions. This inefficiency prevents in-kind taxation of human capital, which is not too bad since income taxes can handle salaries reasonably well. Beside labor, the earned income tax covers indirectly the earners' personal property which supports their ability to work. Only commercial property remains a candidate for in-kind taxation. However, its diversity, indivisibility, and difficulty of distinguishing from personal property create major problems.

On some backgrounds, addition of a commercial property tax would smooth, rather than create, the distortive distinction between commercial property and other assets. An example would be a consumption tax background, e.g., [Hall, Rabushka] type, which defines commercial property and exempts investment in it from taxation. To be eligible, the property must yield no significant personal benefit beside taxable income. The diversity and indivisibility of property can be handled as follows.

The owner posts the property price and is taxed, say, 2% of it per year. He also faces a 2.5% chance per year that the property is auctioned. The posted price is the minimum bid and is returned to the owner; the IRS gets the remaining proceeds. (The extra .5% in

the auction rate encourages accurate pricing, offsets auction costs, and can be used to reward the second highest Vickrey bidder who loses the bid but sets the payment.) Taxpayers would face the auction of their commercial property typically once in a lifetime and could minimize the risk by accurate pricing. This stochastic tax may be too volatile for the US. It is interesting as a thought experiment and may provide a convenient complement to consumption taxes for countries where administrative structures are too rough to allow a smooth function of income taxes. It has similarities with the Swiss land tax system. However, Swiss authorities have the discretion which properties to take and how to dispose of them; this is not simply a matter of chance and auction and so is open to significant variation or even abuse.

## 2.3 Equity Tax

One major part of the economy, the corporate sector, yields itself to in-kind taxation, the equity tax, quite gracefully. The conversion to the system is a voluntary contract. The converts and their shareholders pay no income, dividend, or capital gain taxes. Instead, they give the IRS, say, 2% of stock per year to auction. The effect is roughly similar to lifting the corporate income tax in exchange for somehow assuring the annual realization of capital gains on all stock. A few particularities need to be mentioned.

- The IRS accumulates the shares at a continuous but, to encourage prompt sale, not compound rate. It receives distributions on but cannot vote its shares: the taxpayer acquires its own shares or prints new ones for the auction and transfers them to the winners; the IRS receives only the proceeds. The auction timing and procedure may be made more or less automatic to minimize the IRS's influence on the market.
- The tax applies to equity which fluctuates in value along with its issuer. Other securities, such as bonds, depreciate depending primarily on the contract terms and global economic parameters. They are easy to handle by either income- or equity- tax, whichever applies to their *owner*. More creative securities can be issued by third parties as derivatives.
- An equity-taxed corporation may own shares of another equity-taxed company, directly or through shares of income-taxed intermediaries. To avoid double-taxation, the IRS waives the corresponding fraction of the company's tax, crediting it to the shareholder. The income-tax

code may provide a similar credit in the case when the owned company is income-taxed; then it must use a very conservative method of allocating the income to the period of ownership.

- Since equity-taxed companies cannot accumulate untaxed gains, the gift and estate taxes too should spare dividends and gains of their shares and apply only to the cost basis. (Ideally, these taxes might exempt all wealth that had been fully taxed while accumulated.)
- The greater freedom of equity taxed firms calls for stricter protection against abuses from their major shareholders. Attracting multinationals would also require some protection from multiple taxation by different jurisdictions.
- The 2% rate is just an example. The actual tax rates may vary with economic conditions to accommodate general constraints, e.g., to keep public debt below public assets. However, income and equity taxes must avoid significant predictable difference in their overall burdens.

## 2.4 Conversion

Suppose the income tax rate is 20%. A company re-converting to income tax gives the IRS put options for 20% of its shares at a price which sets the new cost basis. A company converting to the equity tax system realizes its capital gains. It issues new shares, comprising 20% of all shares and the IRS auctions a part of them. The other part is returned to the old shareholders as a credit to offset, at the auction price, the second taxation of the cost basis. This basis includes, in constant dollars, the share's purchase price and all after-tax per-share corporate income reinvested after the share's acquisition.

The auction bids contain the upper limit for the share price and the total dollar amount of the purchase. When the bids are unsealed, the shares are distributed for the price at which the demand and supply meet. The cost-basis credit is treated as an auction bid with infinite share price limit.

Assume I have 2,000 shares bought for \$75 each (prices in constant dollars) and going now at \$100. Since my purchase, the company reinvested \$20 of after-tax income per share. My cost basis is  $$(75+20) \times 2,000 = \$190,000$  with 20% tax credit of \$38,000. The company prints me 500 new shares which is 20% of the new total of 2500. They would sell for  $\$100 \times (100\%-20\%) = \$80$  per share. I shall keep  $\$38,000/\$80 = 475$  new shares; the new owners will pay the IRS \$2,000 for the remaining 25.

## 3 Effects

### 3.1 The Advantage

Let us define the corporate net return as the stock price growth plus the dividends minus the resulting stockholders' tax liability. I assume the companies and investors act rationally maximizing this return. Its near future expectation drives the investors and determines the share prices. Under the equity tax, the net and pre-tax (net plus all general taxes) returns are proportional: maximizing one, maximizes both. I assume special externalities are offset by special liabilities or otherwise do not affect my conclusions. Then maximization of each company's pre-tax return maximizes the one of the sector.

Under most other tax systems maximizations of net and pre-tax returns are in conflict. Taxes cannot be based directly on the taxpayer's return as this would invite games with the share prices. The sector's total net return, however, can be easily monitored and kept in a monotone correspondence with the total tax revenue. I assume this correspondence is set independently of the tax system and taxpayers' actions. Since the total tax would not be lowered without lowering the net return, companies are thrown into a competition to shift the tax onto each other at the expense of lower pre-tax return. This loss of efficiency makes the sector worse off than under the equity tax.

### 3.2 Transition

The equity-taxed sector has a uniform tax *burden*, i.e., the ratio of tax to either return or the stock price reflecting the expected return. The burden of some income-taxed companies, however, is significantly lower than average. Such *favoured* companies (e.g., start-ups) would stay under the income tax despite the efficiency loss. The others would flock to the equity tax, escaping both the loss and the higher burden. The income tax laws would be easier to fine-tune to the diminished sector, making its tax burden flatter and further diminishing the favored layer. Above this layer, the income tax will retain primarily businesses that cannot go public.

This approach sets the equity and income tax rates to equalize the sectors' burdens. A smoother transition would be achieved if these rates are introduced gradually, starting from the pre-reform income tax rate and the equity tax rate that would be revenue-neutral once the bulk of initial conversions is completed. Even these rates would lower the burden imbalance: the efficiency bonus would raise the converts' price, lowering their burden at the same rev-

enue level. While not as equitable or stimulating, this rates leave no losers: the willing converts must think themselves better off; the others pay the same tax and the IRS still collects the same revenue.

### 3.3 Volatility

A small difference between the equity and income taxes lies in the effects of volatility. Shares with the same expected return but lower volatility may be higher priced, though proliferation of diversified mutual funds diminishes this effect. Thus, some low volatility companies may have an incentive to stay out of the equity tax, possibly counterbalanced by their lower ability to mask reinvested income as deductible production expenses. Another effect is that the share price reflects the expected, not actual return. So, the equity tax leaves its subjects fully exposed to their fortune, while the income tax makes them share part of the volatility with the public.

### 3.4 Dangers of Evolution.

An issue with any new tax is its possible evolution. Can the equity tax start as a voluntary replacement for a wealth-based part of income tax and end up its mandatory addition, stripped of the income tax shelter feature? This seems unlikely. A smaller obstacle is the lack of motives. The equity tax leaves no reason for corporate, dividend, or capital gains taxes. The amount of revenue collected is just a matter of rates, not of eclectic additions. A serious rate imbalance (creating, in effect, a separate wealth tax) would be a more real danger if the equity tax was mandatory. Such a mandate, though, might require a constitutional amendment, as income tax did.

A greater safeguard is that corporations cannot be forced to become or stay public and meet various requirements needed for the equity tax to work. So, a mandatory version of the equity tax would be a tax simply on the **status** of publicly traded corporations. This status could not bear much tax since corporations would just change it. The damage to economy would be great and the revenue small. In some Finnish town the tax classification of a building depended greatly on its plumbing facilities. So, people just used the woods, avoiding the larger tax!

## Conclusion

Fundamental reasons preclude objective valuation of assets or income they generate. Resulting distortions can be avoided if tax liability is expressed in-kind,

leaving valuation to the market. Human and, closely related, personal assets are hard to tax in-kind. Thus, only commercial sectors of the economy are eligible for the tax options discussed here. These instruments are interesting at least as a thought experiment and may have practical applications as well.

The equity tax leaves out labor markets, though their limited diversity mitigates the difficulties of taxation. This tax also, of course, leaves alone the exempt sectors. Less fortunately, unlike its rougher stochastic variation, it cannot add grace to the taxation of private business. However, it frees the publicly traded sector from the tax games. This body of “democratic capitalism” thus should grow more attractive and absorb an even greater part of economic life. This “attractive distortion” is purely positive, without cost to other sectors.

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