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THE UNIVERSITY OF CHICAGO LAW SCHOOL

NEW VIEW INTEGRATION

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**THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO**

August 2017

New Equity Integration

Forthcoming, 71 Tax Law Review (Fall 2017)

David A. Weisbach[†]

August 3, 2017

Abstract

This paper examines the design of corporate integration systems, comparing integration limited to equity issued after enactment (New Equity Integration or NEI) to integration that applies to all equity (complete integration). It shows that NEI achieves all of the efficiency benefits of complete integration at a fraction of the cost. NEI, unlike complete integration, is, moreover, supported by both the traditional view and the new view of the effects of dividend taxation. From an efficiency perspective, NEI is strictly better than complete integration.

The problem NEI systems face that complete integration systems do not is distinguishing new equity from old and preventing churning, transactions designed to allow old equity to get the integration benefits given to new equity. Churning, I argue, is like any other type of avoidance. Few systems completely stop avoidance, and we generally try to limit avoidance rather than allow it freely, which is what complete integration effectively allows. To understand the viability of new equity from old, the paper considers three NEI systems: an explicit transition tax, a tracing method described in the American Law Institute's 1982 and 1989 corporate tax reports, and a set of methods based on the economics of consumption taxes. Although all three present trade-offs and administrative problems, all three are feasible. As a result, studies of integration should focus on NEI rather than complete integration.

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The double-level tax on corporate earnings is thought to discourage the use of the corporate form, to encourage corporations to retain earnings, and to encourage the use of debt financing in place of equity financing.¹ Eliminating or reducing these distortions by eliminating one of the two levels of taxes, a policy known as corporate integration, is one of the central components of many tax reform proposals.²

Examinations of corporate integration tend to take a dichotomous view of the available policies: they take the view that we should either have what I will call

¹ See DEPARTMENT OF THE TREASURY, INTEGRATION OF THE INDIVIDUAL AND CORPORATE TAX SYSTEMS, TAXING BUSINESS INCOME ONCE (1992), p. vii.

² Major proposals for corporate integration include DEPARTMENT OF THE TREASURY, TAX REFORM FOR FAIRNESS, SIMPLICITY AND ECONOMIC GROWTH, THE TREASURY DEPARTMENT REPORT TO THE PRESIDENT (1984); DEPARTMENT OF THE TREASURY, *supra* note 2; DEPARTMENT OF THE TREASURY, A RECOMMENDATION FOR INTEGRATION OF THE INDIVIDUAL AND CORPORATE TAX SYSTEMS (1992); AMERICAN LAW INSTITUTE, FEDERAL INCOME TAX PROJECT: INTEGRATION OF THE INDIVIDUAL AND CORPORATE INCOME TAXES, REPORTER'S STUDY OF CORPORATE TAX INTEGRATION (1993). In addition, President George W. Bush proposed integrating the corporate tax in 2003. For a discussion of the Bush proposal, see R. Glenn Hubbard, *Economic Effects of the 2003 Partial Integration Proposal in the United States*, 12 INT. TAX PUBLIC FINANCE 97–108 (2005).

There are a large number of academic studies of corporate integration. These include George F. Break, *Integrating Corporate and Personal Income Taxes: The Charter Commission Proposals Tax Simplification and Reform*, 34 LAW CONTEMP. PROBL. 726–735 (1969); Charles E. McLure Jr, *Integration of the Personal and Corporate Income Taxes: The Missing Element in Recent Tax Reform Proposals*, 88 HARV. LAW REV. 532–582 (1975); Martin Feldstein & Daniel Frisch, *Corporate tax integration: The estimated effects on capital accumulation and tax distribution of two integration proposals*, 30 NATL. TAX J. 37–52 (1977); Alvin Warren, *The relation and integration of individual and corporate income taxes*, 94 HARV. LAW REV. 717–800 (1981); Alan J. Auerbach, *Tax Integration and the “New View” of the Corporate Tax: A 1980'S Perspective*, 74 PROC. ANNU. CONF., TAX. NATL. TAX ASSOC. 21–27 (1981); CHARLES BALLARD ET AL., INTEGRATION OF THE CORPORATE AND PERSONAL INCOME TAXES 153–170 (1985); R. Glenn Hubbard, *Corporate Tax Integration: A View From the Treasury Department*, 7 J. ECON. PERSPECT. 115–132 (1993); Michael J Graetz & Alvin Warren, *Integration of Corporate and Shareholder Taxes*, 69 NATL. TAX J. 677–700 (2016). In addition, the Tax Law Review published a symposium on corporate integration in its spring 1992 issue.

complete integration or none.³ Complete integration is an integration system that applies to equity existing at the time of enactment (existing equity or old equity) and to equity issued after the time of enactment (new equity). As will be explained below, complete integration is thought to be premised on empirical support for a model of the effects of the corporate tax known as the Traditional View instead of an alternative model, known as the New View. If the Traditional View holds, the efficiency gains from complete integration are thought to be substantial, while if the New View holds, they are modest. Because of the considerable revenue costs, complete integration is only desirable with the efficiency gains that come with the Traditional View. If instead, the New View holds, integration may not be desirable because the revenue costs of eliminating the double-level tax might exceed the efficiency gains.

My goal here is to reexamine the arguments for integration, focusing on the implications of the Traditional and New Views. My core conclusion is that what I will call New Equity Integration or NEI, which is integration applied only to equity issued after the date of enactment, is preferable to either complete integration or no integration. NEI achieves *all* of the efficiency gains of complete integration, is supported by *both* the New View and the Traditional View, and would only cost a fraction of the cost of complete integration.

The central problem with NEI is that it requires distinguishing new equity from old. New and old equity in the same class of shares cannot be distinguished by observable features. And even if there were a method of distinguishing new and old equity – suppose that the law required new equity to be of a different and identifiable class – corporations could redeem their old equity and issue new equity with the same economic rights. A corporation that does this would not have changed its capital structure, its investments, or anything else that might matter –

³ As will be discussed, the American Law Institute 1982 and 1989 reports are important exceptions. AMERICAN LAW INSTITUTE, FEDERAL INCOME TAX PROJECT SUBCHAPTER C: PROPOSALS ON CORPORATE ACQUISITIONS AND DISTRIBUTIONS AND REPORTER'S STUDY ON CORPORATION DISTRIBUTIONS (1982); AMERICAN LAW INSTITUTE, FEDERAL INCOME TAX PROJECT: REPORTER'S STUDY DRAFT (1989).

it would have simply moved pieces of paper around. It would, however, argue that it has new equity eligible for the benefits of NEI.

That taxpayers will engage in transactions to allow old equity to get new equity treatment, which I will call churning, reduces the benefits of NEI. The prospect of churning may mean that NEI systems need elaborate rules to prevent it. Churning that remains notwithstanding these rules will increase the revenue cost of NEI and distort financial structures. Although it is lost in the fog of time, it seems that the reason that NEI has not received significant attention is that the problems of churning are thought to be so difficult that they cannot be overcome.⁴ As a result, perhaps complete integration is a better option than NEI.

Churning, I will argue, however, should be analyzed and treated like other tax avoidance problems. Any time the tax law has to draw a line, taxpayers will seek to structure transactions to be on the favorable side of the line, generating economic distortions and revenue losses. Our general approach to this sort of tax avoidance is to try to limit it. Only rarely do we say that a particular tax avoidance problem is so severe that it is better to just allow it rather than incur the costs of trying to prevent it.⁵ Yet complete integration does exactly that. It automatically grants the benefits of churning to old equity. It is, effectively, NEI plus free churning. While allowing free churning might be the right choice, it is not the standard approach to line drawing, and, at a minimum, we need to at least analyze the costs of churning and anti-churning rules before deciding.

To understand the costs of churning, we need to consider methods of limiting integration to new equity. I will examine three: (1) a method based on a suggestion by Alan Auerbach in a 1990 paper to combine complete integration with an explicit tax on existing equity that equals, in present value, the tax that

⁴ Alan Auerbach makes this argument in Alan J. Auerbach, *Taxation and corporate financial policy*, 3 HANDB. PUBLIC ECON. 1251–1292, 1262 (2002).

⁵ See David A. Weisbach, *Formalism in the Tax Law*, 66 UNIV. CHIC. LAW REV. 860–886 (1999); David A. Weisbach, *Ten Truths about Tax Shelters Symposium on Corporate Tax Shelters: Part I*, 55 TAX LAW REV. 215–254 (2001); David A. Weisbach, *An Economic Analysis of Anti-Tax Avoidance Doctrines*, 4 AM. LAW ECON. REV. 88–115 (2002).

would have been imposed had the dividend tax been retained on that equity;⁶ (2) a tracing mechanism proposed by William Andrews in a 1982 and a 1989 American Law Institute study, a version of which was used in Sweden for more than 30 years and Finland for almost 20;⁷ and (3) a set of methods based on the economics of cash-flow taxes and the transition to a consumption tax.⁸ I will conclude that none of these methods is without flaws but that any of them could be made to work. I conclude that NEI is likely superior to complete integration even once we consider churning and implementation costs. Studies of corporate integration should focus on NEI rather than complete integration.

This paper has five parts. To understand the comparison between NEI and complete integration, we need a clear understanding of the economic distortions caused by the current corporate tax system and the complete integration proposals to fix them. Parts 1 and 2 provide this background, for the most part reviewing existing literature. Part 1 examines the distortions caused by current law. Part 2 considers complete integration methods, focusing on the most prominent methods that have been proposed or have been used in other countries.

Part 3 takes up new equity integration. It makes two claims. First, Part 3 shows that NEI can achieve all of the efficiency benefits of complete integration at a lower cost. While this claim is not novel,⁹ it seems to be widely forgotten,

⁶ Alan J Auerbach, *Debt, Equity, and the Taxation of Corporate Cash Flows*, in DEBT, TAXES, AND CORPORATE RESTRUCTURING 91–125 (John Shoven & Joel Waldfoget eds., 1990).

⁷ AMERICAN LAW INSTITUTE, *supra* note 4; AMERICAN LAW INSTITUTE, *supra* note 4. The Swedish and Finnish systems are described in Mervyn A. King & Don Fullerton, *Sweden*, in THE TAXATION OF INCOME FROM CAPITAL: A COMPARATIVE STUDY OF THE UNITED STATES, THE UNITED KINGDOM, SWEDEN, AND GERMANY 87–148 (Mervyn A. King & Don Fullerton eds., 1984); Krister Andersson et al., *Corporate Tax Policy in the Nordic Countries*, in TAX POLICY IN THE NORDIC COUNTRIES 72–137 (Peter Birch Sørensen ed., 1998).

⁸ While a consumption tax approach is, to my knowledge, largely novel, a brief discussion of this approach can be found in the 1982 ALI report. AMERICAN LAW INSTITUTE, *supra* note 4 at 364–365.

⁹ E.g., Auerbach, *supra* note 3; Auerbach, *supra* note 5; Auerbach, *supra* note 7.

ignored, and sometimes disputed, including by some of the major studies on integration.¹⁰ The second claim is that churning should be treated like other forms of avoidance: merely because most NEI methods will allow some churning does not mean we should have complete integration which amounts to free churning. Part 4 considers the three NEI methods mentioned above. Part 5 concludes.

1. Background: Defects in current law

The goal of this section is to analyze the distortions created by the corporate tax system. To do this, I will compare the tax rates on different ways of investing. Differential tax rates on different investments create incentives to avoid high tax investments and to make low tax investments, creating inefficiencies. Part 1.1 describes the taxes on different ways of investing, and Part 1.2 analyzes how these taxes alter incentives.

1.1 Effective tax rates on forms of investment in current law

There are three ways corporations can invest: through retained earnings, by borrowing, and by issuing new stock. We want to compare the tax rate on these investments to the tax rate on investments made outside of the corporate sector.

The matter is complex because the tax in each of these cases depends on the type of investor. As we will see, one of the central questions in designing an integrated corporate tax system is the extent to which we can, or should, match tax rates on corporate investment to the tax rates on different types of investors. Different integration proposals give different answers.

¹⁰ The Treasury Department discussion of new equity integration seems to argue that its merit depends on a belief that the new view of corporation taxation is correct. See DEPARTMENT OF THE TREASURY, *supra* note 2 at 109. As I will discuss, this argument is not correct. NEI is supported by both the new view and the traditional view. In addition, the 1993 ALI report on corporate integration considered and rejected NEI in favor of complete integration. *Supra* note 3, pp. 205-209. I discuss the arguments made by the ALI in note 44.

Although there are many types of investors in corporations, most of them are intermediaries (such as other corporations, financial institutions, and partnerships). If we trace investments through to their ultimate owners, we can think of there as being three types of investors in corporations: taxable individuals (taxable at progressive rates but for the most part at the highest marginal rate), tax-exempt entities, (including pension funds, retirement accounts, and charitable endowments), and foreigners (from various home countries, taxable under their home country regimes).

Determining the proportion of each type of investor is not straightforward because we have to trace flows through intermediaries to their ultimate owners. Estimates vary.¹¹ The proportion of individual investors seems to be somewhere between 25% and 50%, with tax-exempt and foreigners splitting the rest. The exact numbers are not important for the analysis below, however, so I will use as a proxy, an assumption that there are roughly $\frac{1}{3}$ of each type of investor, which is roughly in line with recent estimates.

Our goal is to determine the tax rate on four different types of investments – investments in new equity, in debt, via retained earnings, and outside the corporate sector – for each of three different types of investors – taxable individuals, tax-exempt entities, and foreigners.

To do this, I will start by considering a taxable individual investor, giving a numerical example and then providing a general formula for each type of investment. After going through all four investments in the individual case, I will discuss how the results change for tax-exempt and foreign investors.

¹¹ See Joseph Rosenberg, *Corporate Dividends Paid and Received, 2003-2009*, TAX NOTES 1475 (2012); Steven Rosenthal & Lydia Austin, *The Dwindling Share of U.S. Corporate Stock*, 151 TAX NOTES 923–934 (2016).

1.1.1 Taxable investor

Non-corporate investment.

Suppose that a taxable investor makes a \$100 investment directly (or through a pass-through entity such as a partnership) and that the investment will return \$110 in one year (or 10% for n years). The pre-tax return is \$10. If the tax rate is 40%, the investor pays a \$4 tax, leaving him with \$6 of gain and \$106 in his pocket. The 40% tax rate reduces the pre-tax return from 10% to 6%.

In the general case, with an arbitrary rate of return r , a tax rate of t , and an investment that lasts for an arbitrary number of periods, n , the rate of return is:¹²

$$\text{Non-corporate investment: } (1 + r(1 - t))^n .$$

New Equity.

Suppose that instead of investing an asset directly, the investor contributes \$100 to a corporation in exchange for new stock and the corporation makes the investment in the asset. If the corporate tax rate is also 40%, after one year, the corporation, having earned \$10, would owe \$4 of tax, leaving it with a return of \$6 and \$106 of cash. If the corporation distributes the \$106 to the investor, the investor is taxed on the \$6 of dividend income. (The return of the original \$100 investment is not taxed). If dividends are taxed as ordinary income, the investor would pay a 40% tax on the \$6 or \$2.40. He would be left with \$3.60 in after-tax earnings, giving him a 3.6% rate of return.

The combination of the corporate and individual taxes reduces the 10% pre-tax return to 3.6%, creating an effective tax rate of 64%. In notation, the return

¹² Note that the formula in the text assumes current taxation of the return rather than deferral of tax until the final period. If instead the investor can defer taxation until period n , when the investment is cashed out, the return would be $(1 + r)^n (1 - t) + t$.

has gone from r to $r(1-d)(1-c)$, where c is the corporate tax rate and d is the dividend tax rate. The effective tax rate is $(1-r(1-d)(1-c))$, or 64%.

To write down the general formula for the return to new equity, we have to make an assumption about the pattern of dividend payments. In its analysis for its 1993 integration study, the American Law Institute assumed for new equity that returns in each period are distributed, generating a dividend tax, and the after-tax portion is contributed back to the corporation and reinvested.¹³ In this case, the after-tax return is the same as for the one-year case because in each period the return faces both a corporate and individual tax. Algebraically, the return is

$$\text{New equity, immediate distribution: } (1+r(1-c)(1-d))^n.$$

If instead, the corporation retains the earnings and pays them out after n years, individuals would not pay a dividend tax in the interim. If the individual does not sell his stock, so that there is no interim capital gains tax,¹⁴ the return is

$$\text{New equity, retention: } (1+r(1-c))^n(1-d)+d.$$

The return in the retention case is uniformly higher than the distribution case (other than when $n = 1$, when the two are equal). If an investor is going to finance an n -period project using new equity, it makes sense to defer the dividend tax until period n . One way to think about this is that, as we will see, there is a penalty for using new equity. Paying a dividend and reinvesting in each period is akin to paying the new equity penalty in each period. If an investment is to last for n years, it does not make sense to distribute the earnings during an intermediate

¹³ AMERICAN LAW INSTITUTE, *supra* note 3, p. 24 (table 1, line 2) and 27 (Table 2, line 3).

¹⁴ Computing the effective capital gains tax is complex because capital gains on sales are eventually offset by capital losses after dividends are paid. For an examination of the interaction of dividends and capital gains taxes, see David A. Weisbach, *Capital Gains Taxation and Corporate Investment*, 70 NATL. TAX J. 621-642 (2017).

period and have the shareholder contribute them back to the corporation. Therefore, when computing the return to issuing new equity, I will assume earnings are retained for the duration of a project that the new equity funds.¹⁵

Debt.

Investments in corporations can also be made by lending money to the corporation. Suppose that the investor lends \$100 to the corporation, and the corporation invests the money at a 10% rate of return. The corporation will once again earn \$110 and have \$10 of income. If the interest rate on the debt is 10%, the corporation will owe the investor \$10 of interest and be able to deduct that payment. As a result, the corporation will have no net income and pay no taxes. The investor will have \$10 of interest income, and owe \$4 of taxes, leaving him with a \$6 or 6% after tax return. Using the tax rates we have been assuming, the tax rate on debt investments is 40% or t . If we let the tax rate on interest income be t_d (which could be different than the tax rate applicable to other types of income), we get

$$\text{Debt: } (1 + r(1 - t_d))^n.$$

Retained earnings.

Suppose that the corporation has \$100 of retained earnings that it can choose to invest at a 10% pre-tax return or to distribute to its shareholders, who can also invest it at a 10% return. If the corporation invests the \$100, in one year, it will have \$110 before taxes and \$106 after paying taxes on its \$10 of gain.

¹⁵ An advantage of the ALI approach is that it makes the pattern for taxation of new equity more similar to the pattern assumed for outside investment. It is likely that outside investments have different tax patterns depending on the applicable tax rules and the cash flows that come from the investment. Similarly, corporations may pay current dividends on new equity for non-tax reasons, which means that the return on some new equity will be taxed immediately. Although the choice of the tax patterns matter for estimates of the size of the distortions from the corporate tax, it does not matter for the discussion here: either way, we can see the existence of the distortion. Therefore, to a great extent, these choices are immaterial for the analysis.

After one year, the corporation can distribute \$106 to its shareholders. Because this is a distribution of retained earnings, the shareholders will be taxed on the entire amount.¹⁶ They will have \$106 of dividend income. After paying a 40% tax on the dividend, they are left with \$63.60.

Compare that to an immediate distribution of the \$100 of retained earnings. The shareholders will have an immediate \$100 dividend and will be left with \$60 after paying the dividend tax. If they invest it at a 10% pre-tax return, they are left with \$66 in one year. They have to pay a tax of \$2.40 on the \$6 of earnings, leaving them with \$63.60 in after-tax returns.

The shareholders are left with the same amount regardless of whether the corporation invests the money and distributes the after-tax returns in the future or whether the corporation distributes the money and lets the shareholders invest it. The reason the amounts are the same is that the amount of the distribution, and therefore, the size of the tax on the distribution, grows over time at the after-tax rate of return. The shareholders are indifferent to paying a tax on a \$100 dividend today or on \$106 next year because \$106 is the future value of \$100 at the 6% after-tax rate of return.

We can express this relationship algebraically. Suppose that the corporation has \$1 of after-tax cash that it can invest at a pre-tax rate of return of r . If it invests it for n periods, it will have $\$1(1+r(1-c))^n$. When it distributes this amount to the shareholder, the shareholder will pay a dividend tax at rate d , leaving him with $\$1(1-d)(1+t(1-c))^n$. If instead the corporation distributes \$1 immediately, the investor can invest $\$1(1-d)$. After n periods, he has $\$1(1-d)(1+t(1-t))^n$. That is

¹⁶ In the new equity case, the shareholders will have contributed after-tax dollars to the corporation, get a basis in his stock of \$100, and, therefore will not be taxed on \$100 of the \$106 distribution. In the retained earnings case, whatever the shareholder's original contribution, there will be a dividend tax on the retained earnings when distributed.

Retained Earnings:

$$\text{Immediate distribution: } (1-d)(1+r(1-t))^n$$

$$\text{Future distribution: } (1+r(1-c))^n(1-d)$$

Note that we can see from the algebraic expressions that the equality result in the numerical example (i.e., the investor was left with \$63.60 in both cases) depended on an assumption that the corporate tax rate and the individual tax rate were the same. If the two differ, the after-tax return to retaining the earnings and to immediately distributing them would not be the same.

Summary. We can summarize these results with the following table.

Table 1: Investment returns for taxable investor

Investment choice	After-tax return
1. Non-corporate	$(1+r(1-t))^n$
2. New equity	$(1+r(1-c))^n(1-d) + d$
3. Debt	$(1+r(1-t_d))^n$
4. Retained earnings, corporate investment	$(1+r(1-c))^n(1-d)$
5. Retained earnings, immediate distribution	$(1-d)(1+r(1-t))^n$

1.1.2 Tax-exempt investors

Tax-exempt investors do not pay tax on dividends. Nevertheless, because the corporate tax is based on corporate income regardless of the identity of the shareholder, their investments in stock are still subject to the corporate tax. Therefore, their returns for investing in new equity (line 2) or for retained earnings where the corporation makes the investment (line 4) can be expressed by setting $d = 0$ but leaving the corporate tax rate, c , the same. Tax-exempts also do not pay tax on interest income. Therefore, their return for investing in corporate debt can be expressed by setting $t_d = 0$ in line 3.

Their treatment of alternative investments (line 1 and line 5) is more complex. If they invest directly in a trade or business that is not related to their exempt purpose, they are subject to the unrelated business income tax or UBIT. This tax is at the same rate as the corporate tax. If they invest indirectly, such as through a partnership, they can still be subject to UBIT unless the investment meets strict requirements. To the extent that outside investments are subject to UBIT, the expressions for line 1 and line 5 in Table 1 are correct, setting t equal to c . To the extent that investments are not subject to UBIT, the tax rate in lines 1 and 5 should be zero.

It is not clear whether the marginal investment by a tax-exempt is subject to UBIT. Very little UBIT is collected, which might seem to indicate that the tax is unimportant.¹⁷ For administrative reasons relating primarily to ease of filing, however, I am told that tax-exempt investors often structure investments through corporate shells and have that shell pay the corporate tax on its income instead of the tax-exempt investor paying UBIT. Therefore, that very little UBIT is paid does not mean that marginal investments by tax-exempts are not effectively subject to tax.

Because it is uncertain, I present the results for both possibilities, that UBIT applies and that it does not. Using these values gives the following set of returns for tax-exempts, we get

¹⁷ According to a recent report from the Urban-Brookings Tax Policy Center, tax-exempt entities paid about \$10.3 billion in UBIT tax in 2008 but had total income of \$1.35 trillion, which means that more than 99% of their income was not subject to UBIT. Katherine Toran, *The Unrelated Business Income Tax*, URBAN INSTITUTE (2016), <https://perma.cc/CH22-GLSM>.

Table 2: Investment returns for tax-exempt investors

Investment choice	After-tax return
1. Non-corporate	$(1+r)^n$ or $(1+r(1-c))^n$
2. New equity	$(1+r(1-c))^n$
3. Debt	$(1+r)^n$
4. Retained earnings, corporate investment	$(1+r(1-c))^n$
5. Retained earnings, immediate distribution	$(1+r)^n$ or $(1+r(1-c))^n$

1.1.3 Foreign investors

Foreigners will be subject to their home country taxation at rate f on outside investments (line 1). Foreign investors in U.S. debt (line 3), including corporate debt, are, for the most part, not taxed by the United States on the receipt of interest payments.¹⁸ They will, however, be subject to home country tax at rate f_d .

If a foreigner invests in U.S. stock, any dividends paid to the foreigner are subject to a 30% withholding tax, w .¹⁹ The withholding tax rate is often reduced by treaty to 15% or even 5%.²⁰ There might also be a residual foreign tax. If the withholding tax can be credited against the residual foreign tax, the tax rate on dividends would be the greater of f or w . For notational simplicity in the table below, I use w for that rate, effectively assuming no residual foreign tax. This gives us the results for new equity (line 2) and retained earnings (lines 4 and 5).

¹⁸ I.R.C. § 871(h).

¹⁹ I.R.C. § 1441.

²⁰ Internal Revenue Service, Table 1: Withholding Tax Rates on Income Other Than Personal Service Income Under Chapter 3, Internal Revenue Code, and Income Tax Treaties (2016), www.irs.gov/PUP/individuals/international/Tax_Treaty_Table_1.pdf.

Table 3: Investment returns for foreign investors (no residual foreign tax)

Investment choice	After-tax return
1. Non-corporate	$(1 + r(1 - f))^n$
2. New equity	$(1 + r(1 - c))^n (1 - w) + w$
3. Debt	$(1 + r(1 - f_d))^n$
4. Retained earnings, corporate investment	$(1 + r(1 - c))^n (1 - w)$
5. Retained earnings, immediate distribution	$(1 - w)(1 + r(1 - f))^n$

1.2 Distortions

These taxes create a number of economic distortions, which I review here. I start by assuming, counterfactually, that all investors are taxable. This allows me to establish the basic economics in a simple setting. I then relax that assumption and consider how those results change when we add tax-exempt and foreign investors.

1.2.1 Taxable Investors

The literature has traditionally pointed to three types of distortions from current law: (i) the incentive to invest outside the corporate sector; (ii) the incentive to invest in corporations via debt rather than new equity (resulting in corporations that have too much leverage); and (iii) the incentive for corporations to retain earnings. Consider each in turn.

The incentive to invest outside the corporate sector. To see how taxes affect the incentive to invest outside the corporate sector, compare line 1 (return to non-corporate investment) to line 2 (return to new equity) in Table 1. As can be seen, unless $d = 0$, there are no values of t , c , and d , where lines 1 and 2 are equal for all values of n . Therefore, under current law, taxes will distort the incentives to invest in new equity or outside the corporate sector.

To understand the direction of the effects, suppose that the corporate and outside investor tax rates are the same ($t = c$). In this case, as long as d is positive,

new equity investments have a lower after-tax return than investments made outside the corporate sector because of the tax on dividends. As a result, if $c = t$, there is an incentive to make investments outside the corporate sector, such as in partnerships or directly. The same is true if c is greater than t .

On the other hand, if the corporate tax rate, c , is sufficiently below tax rate on outside investments, t , there could be an incentive to invest in corporations rather than through other vehicles. In effect, corporations become vehicles to defer tax.

The values of t , c , and d , that create this incentive depends on the length of the investment n and on the pre-tax rate of return, r . To illustrate, under current law, investors are taxed at about 40% on outside investments, corporations are taxed at 35%, and dividends are taxed at about 20%. Using these numbers, there is an incentive to invest outside the corporate sector for all but the longest of investments: for a 10% pre-tax rate of return, investing through a corporation is preferable only for investments of 45 years or longer. If the corporate rate were reduced to 30% (holding other rates constant), investing through a corporation would be preferable for investments that last 14 years or longer. If the corporate rate were 25%, corporate investments would be preferred for all investments longer than one year.

The incentive for corporations to use debt. Suppose that an investor would like to invest in the corporate sector, and can do so by investing either in debt or in new equity. To understand this choice, compare lines 2 and 3, which give the after-tax return to new equity and to debt respectively. Once again, these will not be equal for all values of n . The analysis is the same as immediately above, substituting the tax rate on debt investments, t_d , for the tax rate on other investments, t . Depending on parameter values, corporations may have an incentive to either over or under-leverage.

The incentive to distribute or invest retained earnings: The discussion above assumed that an investor had money outside a corporation and was considering whether to invest it in the corporate sector or elsewhere, and if in a corporation, in its debt or its stock. Consider now the case where a corporation itself has after-tax earnings and is considering whether to distribute the earnings to its shareholder or

whether to retain the earnings and invest the money itself. This choice can be examined by comparing lines 4 and 5.

To simplify the analysis, assume for now that the corporate and investor rates are the same, $t = c$. In this case, line 4 will always be equal to line 5, which means that the after-tax return to distributing and retaining earnings is unaffected by taxes. Regardless of the tax rate on dividends, there is no tax incentive to distribute retained earnings.²¹ One way this conclusion is often stated is that we can think of the dividend tax as a toll charge for distributing earnings from a corporation. Because corporate earnings grow at the after-tax rate of return, the present value of the toll charge is the same regardless of when paid.

If we relax the assumption that the corporate tax rate and the tax rate on outside investments are the same (allowing $t \neq c$), there will be an incentive to retain or distribute earnings. The reason is that the after-tax rates of return inside and outside the corporation are not the same: $r(1-t) \neq r(1-c)$. The dividend tax rate, however, does not alter this incentive. Instead, the incentive to retain or distribute earnings arises because of the difference between the shareholder and corporate rates.

The conclusion that the dividend tax has no effect on the timing of distributions of retained earnings is known as the New View, after a series of papers in the late 1970's and early 1980's which established this result.²² It holds for any tax rate on dividends as long as the tax rate does not change. (If the tax rate changes, there is an incentive to distribute earnings when the rate is low.)

²¹ If the shareholders sell their stock during the period that earnings are retained, the resulting capital gains tax may mean that the return on retained earnings is lower than on distributed earnings.

²² See, e.g., Mervyn A. King, *Taxation and the Cost of Capital*, 41 REV. ECON. STUD. 21 (1974); Alan J. Auerbach, *Wealth Maximization and the Cost of Capital*, 93 Q. J. ECON. 433 (1979); David F. Bradford, *The incidence and allocation effects of a tax on corporate distributions*, 15 J. PUBLIC ECON. 1-22 (1981).

Under the New View, if the corporate and individual rates are the same, the choice of the corporation to invest or distribute retained earnings is not distorted.

To the extent that the New View holds, there is no benefit to reducing the dividend tax. The dividend tax does not distort corporate investment choices but raises revenue. With respect to existing corporate equity, it is lump sum.

Moreover, reducing the dividend tax results in windfall gains to existing shareholders. To see why, consider the price of the stock of a corporation that has \$100 of retained earnings. If the dividend tax rate is 40%, the corporation's stock would be valued only at \$60 because whenever the retained earnings are distributed, they will bear a tax. The most that a shareholder can get out of the corporation is \$60 or the present value of \$60. The New View, for this reason, is sometimes called the tax capitalization view. Future dividend taxes are capitalized into the share price.

If the tax rate on dividends were reduced to 10%, the value of the stock would go up to \$90 because the shareholder would be able to keep \$90 out of the \$100 distribution. If the distribution were in a future year, the shareholder would be able to keep the future value of \$90. While the stock price would go up, the corporation's decision whether to invest or distribute the retained earnings would not change (as long as the new tax rate were viewed as permanent). Lowering the tax rate on dividends on existing equity, which is what most integration plans would do, results in a windfall gain to shareholders without generating efficiency benefits.²³

The major alternative to the New View is the Traditional View.²⁴ The Traditional View emphasizes that corporate investments may need to be financed with new equity. To the extent that corporations finance investments with new

²³ See AMERICAN LAW INSTITUTE, *supra* note 3 at 33–36.

²⁴ Arnold C. Harberger, *The Incidence of the Corporation Income Tax*, 70 J. POLIT. ECON. 215–215 (1962); M. S. Feldstein, *Corporate Taxation and Dividend Behaviour*, 37 REV. ECON. STUD. 57–72 (1970); JAMES M. POTERBA & LAWRENCE H. SUMMERS, THE ECONOMIC EFFECTS OF DIVIDEND TAXATION (1984), <http://www.nber.org/papers/w1353>.

equity, the dividend tax does distort investment choices. Recall that if the corporate and individual rates are the same ($c = t$), new equity is disadvantaged relative to outside investments if the dividend tax rate, d , is positive. Corporations using new equity to finance investments need to earn a higher rate of return to offset the additional tax these investments bear, or equivalently, they will forego investments that they would otherwise make if they could use retained earnings or debt.

Moreover, even if a corporation currently has retained earnings sufficient to cover current needs, if it anticipates that it might need new equity in the future, it will have an incentive to retain earnings. The reason to retain earnings is to reduce future new equity issuances and the resulting tax penalty. Therefore, even if current projects are financed out of retained earnings, the double-level tax might distort corporate behavior.

To the extent that the Traditional View holds, integration may lead to substantial efficiency gains. The double-level tax discourages the use of new equity. If new equity is an important source of funds, the double-level tax discourages desirable corporate investments. To avoid this problem, corporations have an incentive to finance projects with debt and to retain earnings, distorting corporate capital structures. We have too few corporate investments, too much corporate debt, and corporations unduly retain earnings. Eliminating the double-level tax reduces or eliminates these distortions.

Even if the New View better describes corporate financing than the traditional view, the corporate tax may distort investment incentives. If the corporate rate is not equal to the tax rate on outside investments, there will be an incentive to retain or to distribute earnings. Moreover, even if the marginal source of funds generally is retained earnings, some investments will need new funds. For example, new ventures will not have retained earnings and large new projects by existing ventures may need additional funds. To the extent retained earnings are not sufficient to finance new projects, there will be an incentive to avoid using new equity. Instead, new projects might be financed with debt or made outside the corporate sector. There are, therefore, some distortions even under the New View, but if the marginal source of funds for most projects is retained earnings, these distortions may be small.

Summary: We can summarize the implications for corporate tax policy as follows. For taxable investors, the choice between (1) keeping the double-level tax and (2) eliminating the double-level tax for all equity, likely depends on which view better describes the effects of dividend taxes. If the Traditional View is largely correct, eliminating the double-level tax may be desirable because the distortions from the double tax are high. If the New View is correct, the distortions from dividend taxes are small, so retaining current law may be preferable. In particular, to the extent the New View is correct, lowering the dividend tax leads to windfall gains to existing shareholders, gains which reduce tax revenues but have no efficiency benefits. Therefore, the extent to which each view holds is thought to determine the extent to which integration is desirable.

The distinction between these views is the marginal source of funds for corporate investment. The New View emphasizes the case where corporations fund projects from retained earnings while the Traditional View emphasizes the use of new equity. Analysts have tried to distinguish between the new and traditional views by looking at the response of dividend payments to taxation. Under the New View, dividends should not be responsive to permanent changes in the dividend tax rate. Instead, these changes are capitalized into the value of the stock. Under the Traditional View, lowering the dividend tax rate should lead to an increase in dividends because lowering the rate reduces the distortions from issuing new equity.

There have been a large number of attempts to examine these effects, many focusing on the 2003 dividend tax cut.²⁵ The evidence so far is ambiguous.

²⁵ Recent work includes ALAN J. AUERBACH & KEVIN A. HASSETT, *THE 2003 DIVIDEND TAX CUTS AND THE VALUE OF THE FIRM: AN EVENT STUDY* (2005), <http://www.nber.org/papers/w11449>; Alan Auerbach & Kevin A. Hassett, *Dividend Taxes and Firm Valuation: New Evidence*, 96 AM. ECON. REV. 119–123 (2006); Alan J. Auerbach et al., *The 2003 Dividend Tax Cuts and the Value of the Firm: An Event Study*, in *TAXING CORPORATE INCOME IN THE 21ST CENTURY* 93–126 (2007); Danny Yagan, *Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut*, 105 AM. ECON. REV. 3531–3563 (2015); Dhammika Dharmapala, *The Impact of Taxes on Dividends and Corporate Financial Policy: Lessons from the 2000s*, *TAX POLICY LESSONS 2000S 1999* (2009); Zhonglan Dai et al., *Capital Gains Taxes and Asset Prices: Capitalization or Lock-in?*, 63 J. FINANCE 709–742 (2008); Raj Chetty & Emmanuel Saez,

Realistically, each view probably describes some portion of firms. For example, new firms will often need equity to get started or to finance growth. Mature firms may have sufficient cash flow to finance new projects out of retained earnings.

1.2.2 General case: multiple types of investors

To understand the more general case, start by examining the incentives if the investor is tax exempt and if the investor is foreign, each taking on its own. After outlining these effects, we can consider the effects when all three types of investors are present.

Tax-exempt investors

Suppose that the investor is tax-exempt. To understand the effects, we need to know whether marginal alternative investment is subject to UBIT. Suppose, to start, that UBIT does not apply to marginal alternative investments.

In this case, an examination of Table 2 shows that there is an incentive to avoid any use of the corporate form other than through a debt instrument. The reason is that equity investments in corporations bear the corporate tax while investments elsewhere and debt investments in corporations do not. As a result, there is an incentive for corporations to distribute retained earnings and for exempt investors not to invest in new corporate equity.

If the marginal investment bears UBIT, the incentives are different. In this case, all investments other than in debt have the same after-tax rate of return. Tax-exempts have incentives to purchase too much debt but there are no other distortions.

Foreign investors

The analysis for foreign investors is similar, replacing the usual tax on dividends with withholding taxes. To the extent of the withholding tax (including whether they are credited against foreign country taxes otherwise due), there is a distortion in the choice between new equity, debt, and other investments. Foreign investors have an incentive to invest outside the U.S. corporate sector and, if they invest in the U.S. corporate sector, to invest in debt rather than equity. This may affect the cost of capital and the financial structure of U.S. corporations.

The analysis of the incentive to distribute or retain earnings is similar to the analysis above. The withholding tax will not distort this incentive as long as it will be imposed at the same rate regardless of when earnings are distributed. Differential tax rates on the growth of the investment, however, will distort this choice. Given that each country will have a different tax rate, f , the U.S. corporate tax rate cannot be equal to the foreign tax rate for all investors simultaneously.

Equilibrium effects

Suppose now that all three types of investors are present. The question is how corporations set their investment policy and how investors choose their portfolios in equilibrium.

The literature has not yet come to firm conclusions about the effects. Attempting a complete analysis of equilibrium effects of taxes on corporate investment and capital structures is well beyond the scope of this inquiry. Instead, I will consider the direction such an analysis is likely to go. I break the analysis into five steps.

First, prices should adjust to reduce opportunities to make profits as corporations adjust their capital structures and dividend policies and as investors adjust their portfolios. The best known example of this is the Miller equilibrium.²⁶ Miller argued that if there is a tax advantage to debt (thereby threatening the

²⁶ Merton H. Miller, *Debt and Taxes*, 32 J. FINANCE 261–275 (1977).

Modigliani and Miller capital structure indifference theorem), corporations will issue additional debt, driving up their borrowing rates, until indifference between debt and equity is restored. Any tax advantage for debt is bid away.

What this means is that on the margin there is no advantage to debt, but companies have too much leverage. That is, the price adjustments do not eliminate the distortions caused by the different returns seen in Tables 1 through 3. Instead, the price adjustments eliminate the opportunity to make profits, effectively capitalizing the distortions into the price of various investments. We will have over-leverage, excess retained earnings (in a traditional view equilibrium), and so forth.

Second, there are too many different types of investors and investments for price adjustments to eliminate profits in any simple manner. To see this, consider one (among many) hypothetical mechanisms for a corporation to finance a project. Suppose that the corporation has \$1 of retained earnings and has a project that costs \$1. The project lasts for n periods, after which, the proceeds will be distributed. To allow for equilibrium effects, allow the rate of return on debt to be different than the rate of return on stock. In particular, let the rate of return demanded by investors to purchase corporate debt be ρ , with ρ not necessarily equal to r .

The corporation can finance the project with its retained earnings. If it does so, a taxable shareholder's n -period after-tax return will be $(1 + r(1 - c))^n (1 - d)$. Alternatively, it can finance the project by issuing new debt. To keep the overall size of the corporation the same in the two cases, assume that if it issues new debt, it distributes the \$1 of retained and the shareholder lends the after-tax proceeds back to the corporation which invests in the project.²⁷ In this case, a taxable shareholder will have $(1 - d)(1 + \rho(1 - t_d))^n$. If equilibrium pressures cause these

²⁷ Note that the size of the investment in the two cases differs because in the case with the immediate distribution, the investment is made with after-tax dollars while in the case where the project is financed with retained earnings, it is made with pre-tax dollars.

two returns to be equalized, we need the return on debt to adjust so that $\rho(1-t_d) = r(1-c)$.

Suppose now that there are also tax-exempt investors. If the investment is financed with retained earnings, it will bear the corporate tax. If the investment is financed with debt, it will not bear any tax. For the returns to be equalized, we need $\rho = r(1-c)$. But this equality cannot hold if the equilibrium condition for taxable investors just described is met. That is, given the multiple different kinds of investments and investors, there is no set of tax rates that makes all investors indifferent across all investments in any simple manner.

Third, in this circumstance – where returns cannot be equalized across all investors and investments – the equilibrium will likely be a result of the relative risk of different investments and the costs of concentration in particular types of assets.²⁸ In particular, a given investment may be profitable for a given investor, but as they purchase more of this investment, they reduce the diversification of their portfolio. They will purchase more until the additional returns are offset by the increased risk due to the loss of diversification.

Fourth, in this equilibrium, all investors are marginal, in the sense that they balance the concentration of their portfolio in tax-favored assets with risk. Changes to returns or to tax rates cause all investors to adjust their portfolios. An implication is that the required rate of return for corporate investments depends on

²⁸ Work includes Michael Brennan, *Taxes, Market Valuation, and Corporate Financial Policy*, 23 NATL. TAX J. 417–427 (1970); Robert H. Litzenberger & Krishna Ramaswamy, *The effect of personal taxes and dividends on capital asset prices*, 7 J. FINANC. ECON. 163–195 (1979); Roger H. Gordon & David F. Bradford, *Taxation and the stock market valuation of capital gains and dividends*, 14 J. PUBLIC ECON. 109–136 (1980); Alan J. Auerbach & Mervyn A. King, *Taxation, Portfolio Choice, and Debt-Equity Ratios: A General Equilibrium Model*, 98 Q. J. ECON. 587–609 (1983); STEPHEN R. BOND, MICHAEL P. DEVEREUX & ALEXANDER KLEMM, THE EFFECTS OF DIVIDEND TAXES ON EQUITY PRICES: A RE-EXAMINATION OF THE 1997 U.K. TAX REFORM (2007), <https://papers.ssrn.com/abstract=1033204> (last visited Jul 18, 2017); Mihir A. Desai & Dhammika Dharmapala, *Dividend Taxes and International Portfolio Choice*, 93 REV. ECON. STAT. 266–284 (2010).

the tax rates of all investors. The relevant tax rate, it turns out, is the weighted average tax rate of all investors, weighted by the wealth of each investor.

Finally, if the relevant tax rate is the global average tax rate, integration may have few benefits. Integration would, for the most part, reduce dividend taxes on U.S. investors. Because U.S. investors hold only a modest portion of global wealth, however, the effect of reducing taxes on U.S. investors on the global average tax rate would be modest. The implication is that the efficiency benefits of integration may not be worth the cost.²⁹

When I turn to NEI in Part 3, I will argue that the implication of this conclusion is that if we pursue integration notwithstanding the possibly modest benefits, it is even more important that we carefully target the efficiency gains and minimize the cost. NEI better targets the efficiency gains and has a lower cost than complete integration, which means that conditional on integration, these equilibrium considerations will provide further support for NEI over complete integration.

2. Complete integration solutions

In this section, I describe the most prominent complete integration systems and their core features. The goal of these systems is to impose a tax on income from corporate investments in a way that eliminates or at least minimizes the distortions outlined above.

The key design issue arises because income from corporate investment is reflected both at the corporate level, through ordinary corporate operations, and the shareholder level through changes in stock price and distributions. Unless stock is taxed on a mark-to-market basis, however, trying to tax the income at the shareholder level (rather than the corporate level) creates deferral problems

²⁹ An additional implication is that source-based taxes get shifted to immobile factors, such as labor. This means that source-based taxes, such as the corporate-level tax, might be inefficient. See Roger H Gordon, *Taxation of investment and savings in a world economy*, AM. ECON. REV. 1086–1102 (1986); Alan J. Auerbach, Michael P. Devereux & Helen Simpson, *Taxing Corporate Income*, in MIRRLEES REVIEW, REFORMING THE TAX SYSTEM FOR THE 21ST CENTURY (2008).

because the shareholders can hold rather than sell their stock, deferring their tax. Most integration methods, therefore, have an initial remittance of tax at the corporate level based on corporate income. Because the income has been taxed at the corporate level, most integration systems reduce or eliminate the dividend tax. The key difference in integration systems is how or whether they coordinate the ultimate tax imposed at the shareholder level with the remittance of tax at the corporate level.

2.1 Dividend exclusion.

If all investors faced the same tax rate on outside investments, integration would be relatively straightforward. Simply set the corporate tax rate to be equal to the tax rate on outside investments, ($c = t$), and set the dividend rate to be zero, ($d = 0$). This system is known as a dividend exclusion system because dividends are excluded from income. The tax on corporate investments is remitted by corporations. With this system, taxpayers face the same tax rate regardless of where they invest. If they invest outside the corporation, they face a tax rate of t and if they invest in stock, they face a tax rate of $c = t$.

To illustrate, in our running example, when the individual contributes \$100 to the corporation, he would get a \$100 basis in his stock. The corporation would pay \$4 of tax on the \$10 of earnings, leaving it with \$106 to distribute. The shareholder would receive the \$6 of after-corporate-tax earnings without paying an additional tax on the dividend. He would treat the remaining \$100 as a return of basis. This is the same result the investor would get for investments outside the corporate sector.³⁰

³⁰ Dividend exclusion does not tax investments made through corporate stock exactly the same way as investments made directly are taxed even if the statutory tax rate is the same. The reason is that the tax system has a complex set of rules for how taxes on different investments are computed and how those taxes interact. Dividend exclusion systems tax some investments at the corporate level and others at the individual level, which means those interactions may not work the same way as if all investments were taxed at individual level. The simplest example is losses: in a dividend exclusion system, losses in the corporate sector cannot be used against gains outside the corporate sector and vice versa. A broader reform considered by the Treasury, known as the

All investors do not, however, face the same tax rate on outside investments. This means that a dividend exclusion system cannot tax corporate investments the same way outside investments are taxed for all investors at the same time. For example, if taxable investors have a tax rate outside investments of 40% and tax-exempts have a tax rate of 0%, the corporate tax rate under a dividend exclusion system has to be both 40% and 0% simultaneously to eliminate distortions.

The Treasury Department in 1992 and the Bush administration in 2003 argued that a dividend exclusion system was the best complete integration system notwithstanding this problem. The theory was, in part, that the simplicity of a dividend exclusion system outweighs the costs of a more accurate system because a dividend exclusion system might be able to get the rates relatively close to what they should be. In particular, the Treasury believed that tax-exempts faced UBIT on their investments and that the traditional view better fit the data. With these beliefs and if we set $c = t$ and $d = 0$, the system is close to neutral for taxable investors (which can be seen by comparing the first three lines of Table 1). Tax-exempts would have a preference for holding debt, but otherwise would be indifferent. Choices by foreign investors would be distorted but the Treasury was writing in 1992 when capital was less mobile and foreign investment less important than it is now. As a result, the Treasury concluded that the efficiency losses from these distortions were modest. Because, under their assumptions, a dividend exclusion system could come relatively close, they reasoned that the

Comprehensive Business Income Tax, would have taxed all business income under a uniform, business-level tax and would have come much closer to a uniform tax on all investments.

Treasury's dividend exclusion system also did not exclude all dividends. Treasury was concerned about the distribution of economic returns that had not been previously taxed at the corporate level. It believed that these returns should be taxed at the shareholder level or they would escape tax altogether. To ensure that the return on these investments was eventually taxed, the Treasury proposed an accounting system which kept track of which distributions were out of previously taxed income and which were not. These considerations are outside the scope of the present inquiry.

simplicity of the dividend exclusion system outweighed the efficiency costs of the rate differentials that such a system imposes.³¹

With a dividend, remittance of the tax is at the corporate level and there is no additional reconciliation of tax to shareholder attributes. Most alternative integration systems continue to have corporate-level remittance but add, on top, some sort of shareholder-level reconciliation.

2.2 Dividend deduction.

The simplest system that taxes corporate income at shareholder rates is what is known as a “dividend deduction” system.³² Under a dividend deduction system, corporations pay tax on their income, as under current law. When they distribute earnings to shareholders, they deduct the distribution and shareholders include it at their tax rate.

To illustrate using our running example, when the corporation earns \$10, it would owe tax on its \$10 of gain. When it distributes the earnings, however, it gets a \$10 deduction, so the corporation would have no net income and pay no tax. The shareholder has \$10 of dividend income, which is taxed at the shareholder rate. As a result, there is an initial corporate-level remittance of tax, which, when a dividend is paid, is offset by a deduction at the corporate level, and simultaneously, there is a corresponding inclusion at the shareholder level.

Note that this system does not quite tax corporate earnings at the shareholder rate because retained earnings are taxed at the corporate rate during the period of

³¹ The Treasury also argued that tax-exempt investors should continue to face a corporate level tax on their equity investments on the theory that business income should be taxed once. It is not readily apparent, however, why taxing business income once is a desirable goal and how that goal relates to minimizing distortions from the corporate tax. I do not adopt the Treasury’s “taxing business income once” approach here and instead focus on minimizing the economic distortions caused by the current structure of the corporate tax.

³² The Treasury Department proposed a divided deduction system as part of its 1984 tax reform study. See DEPARTMENT OF THE TREASURY, *supra* note 2.

retention. To see this, consider \$1 of earnings that are retained for n periods. These grow at $(1+r(1-c))^n$. When this amount is distributed, it is deducted by the corporation at rate c and included by the shareholder at rate d , resulting in a value to the shareholder of $(1+r(1-c))^n \left(\frac{1-d}{1-c}\right)$. If the amount were distributed immediately, the value at time n to the shareholder would be $\left(\frac{1-d}{1-c}\right)(1+r(1-t))^n$. Unless the corporate and shareholder rates are the same, the two will not be equal. The two rates, however, cannot be equal for all shareholders because there is only a single corporate rate and multiple shareholder rates (multiple shareholder rates, after all, are the reason for using a dividend deduction system rather than a dividend exclusion system). A particularly important case is investments by tax-exempts, where (if marginal investments are not subject to UBIT), $t = 0$. In this case, retained earnings grow at the after-corporate tax rate while distributed earnings grow at the pre-tax rate.

Because they do not fully reconcile the tax on corporate income with shareholder attributes, dividend deduction systems should be seen as trying to strike a balance between the benefits of corporate remittance of tax and matching the tax rate on corporate investments to other investments. There is a reconciliation of tax rates at the shareholder level but the reconciliation is only approximate. They do more than dividend exclusion systems do but do not fully reconcile the corporate remittance with shareholder attributes.

2.3 Dividend deduction with withholding.

A problem with dividend deduction systems is that they ultimately rely on shareholders to remit tax. The deduction on distribution offsets the corporate remittance. Shareholders have to then separately send checks to the government based on the dividends that they receive. This separate shareholder remittance might generate high compliance and administrative costs.

“Dividend deduction with withholding” systems partially fix this problem by requiring corporations to withhold the dividend tax and remit it to the government on the shareholders’ behalf. Shareholders would then claim a credit on their returns for the taxes paid on their behalf. The concept is similar to employer

withholding on wages: employers remit wage taxes on behalf of their employees who then claim a credit on their tax return for these payments.

To illustrate, in our example, in a dividend deduction system, a corporation that earns \$10 and distributes it, would claim a \$10 deduction, so it would owe no corporate tax. Under a dividend deduction plus withholding system, it would be required to withhold taxes on the dividend. The corporation earns \$10, deducts \$10, and owes no corporate tax, and it remits \$4 of withholding taxes on the shareholders' behalf. The shareholder gets a \$6 dividend but would be treated as having \$10 of dividend income, with \$4 of it withheld and paid to the government. If the shareholder is in the 40% bracket, he would owe \$4 in tax. Just like with wage withholding, he would receive a form telling him that taxes have been withheld and he would show that amount on his return as taxes paid. He would therefore owe no additional taxes. If instead, the shareholder were in the 50% bracket, he would owe \$5 of taxes on the dividend. The corporation would have remitted \$4, so he would owe an additional \$1. And if the shareholder were tax-exempt, it would owe no taxes. The corporation would have paid \$4, so in theory, the shareholder would be entitled to a \$4 refund.

This system mimics a dividend deduction system with the enforcement advantages of withholding. An important difference between dividend deduction and dividend deduction with withholding is that with the latter, the government can adjust the allowable credit for the withheld taxes depending on the type of taxpayer. In the example above, the government could choose whether to allow a refundable credit to the tax-exempt shareholder. If, for whatever reason, it wants tax-exempts' investments in corporate stock to bear tax, it can limit the ability of tax exempts to claim a credit for the withheld tax, either denying the credit entirely or in part.

Note that like with a dividend deduction system, a dividend deduction with withholding system only partially reconciles the tax on corporate investments with the tax on outside investments. The tax on retained earnings is once again $\left(\frac{1-d}{1-c}\right)(1+r(1-c))^n$. Even if $d = c$, the return on retained earnings will not be the same as on outside investments for all investors simultaneously because the corporate rate cannot be set equal to the outside rate for different types of investors.

2.4 Credit imputation.

The dividend deduction with withholding system is not, to my knowledge, currently used anywhere in the world. It is, however, identical in substance, although with different labels, to a system that was once widely used in OECD countries, known as the credit imputation system. In a credit imputation system, the corporation pays tax on its income and cannot (nominally) deduct dividends. Shareholders are taxed on dividends, but they can claim a credit against their taxes for their share of the corporate tax. The net effect is to convert the corporate tax into a withholding system.

To illustrate, in our example, the corporation would earn \$10 and pay a tax of \$4. It would have only \$6 to distribute. The shareholder would be treated as receiving a dividend of \$10 (\$6 of cash and \$4 of tax paid on the shareholder's behalf) and would owe tax on this amount. He would, however, get a credit for the \$4 of taxes paid by the corporation. If the shareholder's tax rate is 40%, he would owe \$4 of tax on the \$10 dividend but because of the credit for the corporate tax, would owe no additional taxes. As with the dividend deduction with withholding system, tax-exempt and foreign shareholders could be allowed, or not, to claim credits for their share of the corporate tax.

The difference between the dividend deduction with withholding system and the imputation credit system is just labelling. In the dividend deduction with withholding system, there are three line entries at the corporate level: the corporate tax, the offsetting deduction, and the withholding. If all are at the same 40% rate, on \$10 of corporate income, there is a \$4 tax, a \$4 deduction, and \$4 of withholding, netting to a \$4 payment to the government. With the imputation credit system, there is just one line entry at the corporate level: the \$4 of corporate tax. The shareholder treatment is identical: the shareholder in both cases gets \$6 in cash and is treated as receiving a \$10 dividend and having \$4 of tax paid on his behalf.

The ALI proposed a credit imputation system in 1993.³³ European countries used them widely until earlier this century.³⁴ They largely repealed these system

³³ AMERICAN LAW INSTITUTE, *supra* note 3 at 50–52.

because of decisions by the European Court of Justice unrelated to the merits. Some non-European OECD countries such as Australia still use credit imputation systems.³⁵

In 2015, a working group of the Senate Finance Committee recommended a dividend deduction with withholding system instead of a credit imputation system. Their theory was that using different labels would result in different behavior. Under the dividend deduction with withholding system there is, nominally, no (or far less depending on the size of dividends versus corporate income) corporate tax. The corporate tax of \$4 in our example is reduced by the dividend deduction worth \$4 so the corporation pays no “corporate income tax.” Instead of a corporate income tax, the corporation remits a “withholding tax” on its shareholders’ behalf. The theory that this matters was, apparently, that the accountants will treat the two systems differently and allow corporations to report no, or lower, corporate taxes for accounting purposes under the deduction/withholding system than the credit imputation system. Moreover, they believed that the markets will believe the accountants that the systems are different, namely that the dividend deduction with withholding system lowers corporate taxes while a credit imputation system does not. They apparently had a poor view of accountants and of markets.

The four systems described above (dividend exclusion, dividend deduction, dividend deduction with withholding, and credit imputation) all have an initial remittance of tax by corporations based on a computation of taxable income at the corporate level. The alternative is to tax shareholders on their share of corporate income directly rather than taxing corporations themselves.

³⁴ Michael J. Graetz & Alvin C. Jr. Warren, *Income Tax Discrimination and the Political and Economic of Europe*, 115 YALE LAW J. 1186–1255 (2005).

³⁵ Canada, Chile, Mexico, and New Zealand also use full credit imputation systems, while Korea uses a partial credit imputation system. Kyle Pomerleau, *Eliminating Double Taxation through Corporate Integration*, TAX FOUNDATION, http://taxfoundation.org/article/eliminating-double-taxation-through-corporate-integration#_ftnref12 (last visited Aug 23, 2016).

If corporations are not themselves taxed, the system has to have a way of requiring shareholders to include corporate income on a current basis. If not, corporations would effectively act like retirement accounts because they would allow tax-free build-up until income is eventually distributed. The two primary ways of requiring shareholders to include corporate income are the shareholder allocation system and the shareholder mark-to-market system.

2.5 Pass-through or shareholder allocation.

Corporations could be taxed under a partnership model or what is sometimes called shareholder allocation. Under a shareholder allocation system, corporations would allocate their income to their shareholders, who would then be liable for the resulting tax exactly like partners are liable for taxes on partnership income. By taxing the income at the shareholder level, a shareholder allocation system ensures that the income is taxed in much the same way it would be if it were earned outside of a corporation. Notwithstanding the accuracy it would provide, shareholder allocation systems are widely viewed as unadministrable in the publicly-held corporation context, and have never been seriously proposed.³⁶

2.6 Shareholder mark-to-market.

Rather than allocating corporate income to shareholders, shareholders could be required to pay tax currently on corporate earnings as measured by the change in the value of their stock.³⁷ The change in value of their stock is, at least for publicly traded corporations, easier to measure than corporate income and is arguably a better measure of shareholder income.

³⁶ See, e.g., DEPARTMENT OF THE TREASURY, *supra* note 2 at 27.

³⁷ A number of scholars have proposed shareholder mark-to-market systems. See Joseph M. Dodge, *Combined Mark-to-Market and Pass-through Corporate-Shareholder Integration Proposal*, A, 50 TAX REV 265 (1994); David A. Weisbach, *A Partial Mark-to-Market Tax System*, 53 TAX REV 95 (1999); ERIC J. TODER & ALAN D. VIARD, MAJOR SURGERY NEEDED: A CALL FOR STRUCTURAL REFORM OF THE U.S. CORPORATE INCOME TAX (2014), <http://papers.ssrn.com/abstract=2426657> (last visited Mar 18, 2016).

To illustrate how this system works, the shareholder in our running example invests \$100 in the corporation which earns \$110 in one year. Under a shareholder mark-to-market system, there is no corporate tax, so the corporation has \$110 in after-tax earnings. The value of the stock would go up to \$110. The shareholder would have \$10 of gain even if the stock is not sold or the \$10 of earnings distributed. The shareholder would owe \$4 of tax, leaving him with a net return of \$106, which is the same as the return available outside of the corporate sector or through corporate debt. Dividends would be taxable in this system, although because they reduce the value of stock, they would also generate a mark-to-market loss.

The key weakness of shareholder mark-to-market is that it is purely a shareholder system. There is no corporate remittance of tax. Collecting tax at the shareholder level may be much more difficult than collecting tax at the corporate level. Moreover, a shareholder mark-to-market system makes it difficult to adjust the treatment of tax-exempt or foreign shareholders for their investments in U.S. corporations. Without a special rule (and for foreign investors, some sort of collection mechanism), tax-exempt and foreign shareholders would not be taxed under a mark-to-market system, which means that their investments in U.S. equity would be tax free. This might be the right policy, but if it is not, a shareholder mark-to-market system makes it difficult to impose a different policy.

3. New equity integration

With this background, we can turn to an examination of new equity integration. In this part I will examine the efficiency properties of NEI and discuss how we should analyze the problem of churning. In the next part, I consider the design of NEI systems.

3.1. The Efficiency Effects of NEI

Consider the distortions from the corporate tax identified in Part 1. For convenience, Table 1 is reproduced here. By setting the values for the various taxes, t , c , t_d , and d , the table can represent the returns for an arbitrary type of investor (for example, letting $d = 0$ for tax-exempt investors and $d = w$ for foreign investors).

Table 1 (reproduced): Investment returns

Investment choice	After-tax return
1. Non-corporate	$(1 + r(1 - t))^n$
2. New equity	$(1 + r(1 - c))^n (1 - d) + d$
3. Debt	$(1 + r(1 - t_d))^n$
4. Retained earnings, corporate investment	$(1 + r(1 - c))^n (1 - d)$
5. Retained earnings, immediate distribution	$(1 - d)(1 + r(1 - t))^n$

Suppose now that we have a method of exempting dividends attributable to investments made with new equity and only new equity. What this means is that the dividend tax in line 2 is set to 0 but the dividend tax in lines 4 and 5 is unchanged from current law. As was discussed above, in a world with different types of investors, setting c equal to t may be complex, but let us assume for now that we have adopted one of the methods discussed above to achieve or mostly achieve that.

With this system, lines 1, 2 and 3 now produce the same economic return, so there is no tax incentive to change investment choices among non-corporate investments, new equity, and debt. Moreover, lines 4 and 5 are the same (or close to, depending on how close c is to t), so there is no incentive to distribute or retain earnings. The results are presented in Table 4, assuming that $t = c = t_d$.

Table 4: New Equity Integration

Investment choice	After-tax return
1. Non-corporate	$(1 + r(1 - t))^n$
2. New equity	$(1 + r(1 - t))^n$
3. Debt	$(1 + r(1 - t))^n$
4. Retained earnings, corporate investment	$(1 + r(1 - t))^n (1 - d)$
5. Retained earnings, immediate distribution	$(1 - d)(1 + r(1 - t))^n$

Note, most centrally, that the elimination of the disincentive to issue new equity (making line 2 equal line 1) means that even if the Traditional View holds, the corporate tax does not distort investments. The Traditional View is based on the premise that corporate investments are financed through new equity, so eliminating the disincentive to issue new equity directly addresses that concern. In addition, if corporate projects might be financed with new equity in the future, there would be, without integration, an incentive to retain earnings to avoid the additional tax cost from new equity. But if the extra tax cost on new equity is eliminated, so is the incentive to retain earnings.

Therefore, even under the Traditional View, integration for new equity and only new equity eliminates the distortions from the corporate tax. That is, regardless of whether the marginal source of funds is new equity or retained earnings, if dividends attributable to new equity are exempt from tax, corporate investment is not distorted. If the marginal source of funds is new equity, setting lines 1, 2 and 3 equal eliminates the distortion. If the marginal source of funds is retained earnings, setting lines 4 and 5 equal eliminates the distortion even if d is left as is.

NEI achieves these efficiency benefits at a lower cost than complete integration. Although a precise estimate of the cost difference is beyond the scope of the analysis here, we can get a sense of the order of magnitude through some simple calculations.

Gross new equity issuances in the United States are about \$150 billion per year.³⁸ That stock will pay dividends which are currently taxed but which would be exempt under NEI. Because the value of a share of stock is the present value of the dividends (and other) payments on the stock, we know that the present value of dividends on new equity is also \$150 billion per year. Suppose, as assumed above, that $\frac{1}{3}$ of these shares – \$50 billion – are held by taxable individuals. The current tax rate on dividends is 20%, so the annual tax cost of eliminating that tax under NEI would be about \$10 billion.

The present value cost of NEI is the present value of \$10 billion per year. For simplicity, assume an infinite horizon, so that the present value is just the annual flow divided by the discount rate. At an 8% discount rate,³⁹ the present value cost of NEI is \$125 billion.

Compare this to the complete integration proposal made by the Treasury Department in 1992. That proposal exempted dividends on all stock, whether new or old. Using the same reasoning, the present value of dividends on existing stock is its value. The current capitalization of the US stock market is \$27 trillion.⁴⁰ At a 20% tax rate on $\frac{1}{3}$ of investors, the present value tax to be received on existing equity is \$1.8 trillion. The total cost of complete integration is the cost of integration for existing equity (\$1.8 trillion) plus the cost of integration for new equity (\$125 billion), for a total of \$1.9 trillion. This is more than 15 times greater than the cost of NEI.

³⁸ <https://www.federalreserve.gov/econresdata/releases/corpsecure/current.htm> (visited May 11, 2017). In both 2014 and 2015, equity issuances were \$175 billion and in 2016, they were down to \$138 billion.

³⁹ The discount rate should reflect the expected return on equities, which is not known. Even determining a historic return is not straightforward because the value can vary widely depending on the starting and stopping dates. For a discussion, see John Y. Campbell & Samuel B. Thompson, *Predicting Excess Stock Returns Out of Sample: Can Anything Beat the Historical Average?*, 21 REV. FINANC. STUD. 1509–1531 (2008).

⁴⁰ <http://data.worldbank.org/indicator/CM.MKT.LCAP.CD?locations=US> (visited August 2, 2017).

There are numerous ways that this calculation is crude and possibly wrong, although many refinements would affect both NEI and complete integration and, therefore, may not affect the ratio of costs very much. I did not account for basis in the calculation: I treated the \$150 billion of present value dividends on new stock as fully taxable but in fact, only the return above the initial purchase price would be taxed. But I also did not account for basis in the existing \$27 trillion of stock. Adjusting for basis may change the ratio somewhat but would not likely change the qualitative result because it was omitted from both the numerator and denominator. In addition, the Treasury proposal did not exempt all dividends. Instead, it had a complex procedure for exempting some but not all dividends based on whether the dividends were paid out of income previously taxed in the United States. But this system would apply to NEI as well which means that these choices also affect both the numerator and the denominator.

I also did not account for share repurchases when estimating the cost of NEI. Instead, I used gross equity issuances. If share repurchases reduce the benefits of integration (as in some of the systems discussed below), the estimate should have been based on net new equity. In recent years, this has often been low or zero, which would correspondingly reduce the cost of NEI but not complete integration.⁴¹

Regardless of refinements, the core point will remain because it is driven by a simple fact: there is a vastly larger base of existing equity than new equity, which means that the cost of complete integration will be correspondingly greater than the cost of NEI. A choice to have complete integration is a choice to give a massive windfall to existing shareholders, reducing tax receipts with no efficiency benefits.

The argument for NEI is an example of a more general problem, which is determining when tax changes (or other legal changes) should be retroactive, either fully or in the limited sense of applying to future income from existing

⁴¹ <https://www.federalreserve.gov/econres/notes/feds-notes/equity-issuance-and-retirement-by-nonfinancial-corporations-20170616.htm> (visited August 2, 2017).

investments.⁴² On the one hand, if we want to remove a distortion or to create an investment incentive, it makes sense to do so only for new investments because existing investments are sunk. If someone has already built a building, lowering his tax rate to induce him to build it is not a good idea. It reduces tax revenue without having the desired behavioral effect. The horse is already out of the barn, if you will.

On the other hand, some argue that tax and legal changes should be retroactive or apply to existing investments because people will anticipate forthcoming changes. If the individual anticipates a lower tax rate on future income from his building, he will be more likely to build it now. Retroactivity effectively extends the benefits of current changes in the law to the past because of this anticipation. If the changes are desirable, retroactivity, at least in the limited sense of applying tax changes to future income from existing investments, may also be desirable.

It is possible that if NEI becomes a prominent alternative that there could be anticipation effects. Imagine, a year before legislation is passed, that the corporate sector widely anticipates that new equity will be taxed at a lower rate than existing equity. Applying NEI only to equity issued after enactment may freeze up markets in the period before enactment. Why form a new corporation today when your tax bill will be far lower if you wait and form it next year?

If this happens, it might be desirable to have an effective date for NEI that includes the time period where there are anticipation effects. It seems unlikely, however, that much, if any, of the \$27 trillion of current stock investments was made in anticipation of integration. Giving integration benefits to old equity would be a lump sum subsidy, akin to giving a tax benefit to build a building that was already built. And in the case of integration, the sums involved are large. It is hard to see how the arguments in favor of tax retroactivity alter the argument for

⁴² There is a substantial literature on transitions to new tax systems. See Michael Graetz, *Legal Transitions: The Case of Retroactivity in Income Tax Revision*, 126 UNIV. PA. LAW REV. 47 (1977); Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 HARV. LAW REV. 509–617 (1986).

NEI over complete integration except perhaps for a short period of time immediately before legislation is passed.

3.2 Equilibrium and International investors

As discussed in Part 1.2, the analysis of the distortions from the corporate tax may change once we take into account price adjustments. In particular, Part 1.2 considered the possibility that the required corporate return is based on the weighted average tax rate faced by investors. Because U.S. investors only hold a modest portion of global wealth, integration that reduces dividend taxes on U.S. investors would have only minor effects on the corporate cost of capital.

If this hypothesis is true, we may not want to integrate the corporate tax with the shareholder tax. Conditional on choosing to have integration, however, the case for NEI instead of complete integration is stronger. The reason why, is that the efficiency gains from integration would be modest. It would, therefore, be even more important that integration be targeted at the inefficiencies from the corporate tax and that the cost be kept low. Relative to complete integration, NEI does both: it directly targets the source of inefficiency and it costs much less than complete integration.

Said another way, nothing in the analysis of equilibrium effect indicates that it makes sense to lower taxes on existing equity. Doing so results in a windfall to investors without creating direct efficiency gains. The equilibrium analysis suggests that perhaps no integration plan is desirable, but conditional on believing the benefits of integration outweigh the costs, NEI better targets the benefits and minimizes the costs. If one is unsure about whether the benefits of integration outweigh its costs, it is especially important to keep the costs down.

3.3 Churning should be treated like other avoidance.

If NEI achieves all of the efficiency gains of complete integration at a fraction of the cost, the question is why most proposals are for complete integration systems. In fact, to my knowledge, the only NEI systems ever adopted

were the so-called Annell systems used by Sweden and Finland.⁴³ These systems, both adopted in the 1960's, allowed a deduction for dividends paid on new equity, which is close to what the American Law Institute proposed in 1982 and 1989. They were, however, abandoned in the late 1980's and early 1990's. Although understanding the reasons they abandoned the Annell systems would be helpful in evaluating NEI, I have been unable to find literature explaining the historical circumstances.

Outside of those examples, there is no experience with NEI, and few commentators have addressed the issue.⁴⁴ It seems that the reason that NEI has

⁴³ Andersson et al., *supra* note 8; King and Fullerton, *supra* note 8.

⁴⁴ An exception is the 1993 American Law Institute integration report, *supra* note 2, which considers and rejects NEI (part 8, pages 205-209). The ALI report did not, however, reject NEI because it would be too difficult to implement. The ALI offered four reasons. (There are actually five items in the ALI's list, but the fifth is that NEI could be adopted if desired.) First, the ALI notes that complete integration will not only produce windfall gains. It will also produce some windfall losses, depending on the choices that are made. This is true as far as it goes, but its implications for the choice between NEI and complete integration are unclear. Moreover, given the size of the windfall gains, there would have to be substantial losses to come close to offsetting the gains, and the ALI does not identify any losses of this magnitude. Second, the ALI argues that we could capture the windfall gains with an explicit tax on the gains. This is true and I consider the design of an explicit tax below. This argument is, however, an argument for NEI, not against it. Third, the ALI argues that windfalls could be eliminated if integration is part of an overall set of tax changes that keeps the burden of capital the same. This may also be correct, and when considering whether to adopt NEI or complete integration, we would have to consider the overall package of reforms. But this argument does not make clear why we would want to give windfall gains to shareholders and offset them by, presumably, non-lump sum taxes on capital more generally. Finally, the ALI argues that windfalls are a necessary part of any basic structural change to the tax law and are necessary to passage. This might be true, although it is not easy to know what sorts of tax reforms can pass at any given time.

The Treasury Department integration study contains a paragraph (p. 109) that argues that we should not adopt the American Law Institute 1989 NEI system because it believes that the traditional view better describes the economics of the corporate tax. (It contains a somewhat longer discussion that focuses on other aspects of the 1989 ALI report.) This claim does not make sense. As explained in the text, NEI is better than complete integration regardless of which view, the new or traditional, is correct.

been largely ignored is that it is thought to have administrative problems that are too difficult to solve. It is better to adopt complete integration notwithstanding its higher revenue costs because of the administrative problems with NEI.⁴⁵

The key administrative problem presented by NEI (but not complete integration) is distinguishing between new and old equity. This distinction may not be easy to make. New stock is fungible with old stock in the same class, so there will often be no way to distinguish the two by observable characteristics of the shares. Moreover, even if new shares could be distinguished from old shares – say a law required new shares to be identifiable – taxpayers will try to engage in churning – transactions that try to get new equity treatment for old equity. For example, if the distinction between new equity and old is a formal characteristic of the stock, such special identifying numbers, corporations can redeem old shares and issue new shares with the correct formal characteristics. All shares would then have the characteristics of new shares with no change in the actual economics. It is better, so the argument goes, to treat all equity the same than to incur the administrative costs of attempting an infeasible task.

To understand whether this argument is a good one, we need to look at the available methods of distinguishing old equity from new and evaluate their costs and the extent that they allow churning. Before turning to these methods, it is important to frame the inquiry properly.

Churning is a way of treating old equity as new equity for tax purposes. It is a way of getting a beneficial tax treatment given to a specified activity (issuing new equity) without actually engaging in that activity. It is like any other tax avoidance or tax sheltering activity. It seeks to shift tax treatment of a behavior to the favorable side of a line without truly changing the underlying behavior.

The costs and benefits of attempting to stop it should be analyzed the same way that we analyze attempts to stop other tax avoidance. The usual approach to tax avoidance is to attempt to devise rules that attempt to prevent it. We then

⁴⁵ This argument can be found in Auerbach, *supra* note 5 at 1262.

compare the cost of administering those rules with the revenue raised and the resulting economic distortions.⁴⁶

The logic for complete integration rather than NEI is that it is so costly to enforce the line between old equity and new that we should not bother to try. It is, effectively, a choice to allow free churning.

Only in rare cases, however, do we allow the equivalent of free churning – explicitly allowing sheltering rather than trying to stop it. The check-the-box rules are an example. Before check-the-box, the law attempted to make a distinction between corporations and partnerships. Taxpayers, however, were easily able to create entities which fell on whichever side of the line gave a better tax treatment. Notwithstanding a fairly long period of attempts, there seemed to be no way to police the line. While taxpayers were getting the treatment that they wanted, they had to pay lawyers and bankers to structure deals and the government had to pay staff to try to enforce the line. With the check-the-box rules, the government threw in the towel and simply made the treatment elective except in places such as public trading, where the line could easily be enforced. By making the treatment elective rather than trying to enforce a distinction that was impossible to enforce, we eliminated the structuring costs, without, at least in theory, changing the law as it was actually applied on the ground.⁴⁷

Perhaps churning to avoid the limits of new equity integration is like structuring entities to be either partnerships or corporations. It is simply so

⁴⁶ See Weisbach, *supra* note 6.

⁴⁷ It is important to distinguish arguments for eliminating a line in the tax law that does not make sense from arguments about enforcing a difficult line that does make sense. For example, the tax law cannot easily distinguish debt from equity, and there have been proposals over the years to treat the two the same. See, e.g., the proposal for a comprehensive business income tax put forward by the DEPARTMENT OF THE TREASURY, *supra* note 2. This is a different argument than the argument for complete integration, which is that a line that does make sense is too hard to enforce. Arguably, the check-the-box rules are an example of the former, eliminating a line that does not make sense, although they could be an example of the latter if there are good reasons for having different tax systems for different types of entities.

difficult to stop churning that we should give up and allow it freely. Note, however, that the check-the-box approach is a rare exception. In almost all cases, we instead try to enforce rules rather than to make avoidance easier.

The question, then, is what are the administrative costs of preventing churning? Is it worth bearing those costs to avoid the windfall gains that automatic churning would grant? To answer this question, we must examine NEI systems.

4. NEI Systems

To understand whether it is feasible to offer integration for new equity but not old equity, I will consider three NEI systems: (1) an explicit transition tax system; (2) a tracing system based on the 1982 and 1989 ALI reports; and (3) a cash-flow system for equity that relies on consumption tax economics.

4.1 *Explicit transition tax*

In a 1990 paper, Alan Auerbach noted if we combine a complete integration system with a one-time tax on existing equity, we get new equity integration.⁴⁸ The way that Auerbach describes it, complete integration creates windfall gains to existing equity because of the reduction in the dividend tax. The dividend tax was already capitalized into its price, so any reduction in the dividend tax increases its value without creating any beneficial incentives. We can eliminate that windfall by imposing an explicit tax equal to the windfall.

To illustrate using a dividend deduction system, suppose that a corporation with \$900 of existing equity issues \$100 of new equity. Complete integration through a dividend deduction system would allow a deduction for all dividends, both on the \$900 of old equity and the \$100 of new. If we combine this with a one-time tax on the present value of the tax dividends that would have been paid

⁴⁸ Alan J. Auerbach, *Debt, Equity, and the Taxation of Corporate Cash Flows*, in DEBT, TAXES, AND CORPORATE RESTRUCTURING 91, 115 (John Shoven & Joel Waldfoget eds., 1990).

on the \$900 of old equity, the net would, in present value, be a deduction only for the \$100 of new equity.

A key feature of this system is that it does not need to distinguish new equity from old equity. It uses a complete integration system. Moreover, it is not based on transactions, such as issuing new equity or redeeming old. As a result, churning would likely be limited under this system. And because it is an explicit tax, it would likely work with most complete integration systems. The explicit tax would be imposed separately from the integration system, effectively just running alongside the integrated corporate tax. As a result, we could choose the integration system that best matches other policy goals.

While simple in concept, there will be a number of complex implementation issues. The transition tax should be equal to the present value of the tax reduction on dividends on existing equity. Estimating this value is not straightforward, and collecting the tax may be difficult given its potential size.

An initial issue is determining the future dividends that will be paid on existing equity. Auerbach suggests that we use the corporation's earnings and profits account because only distributions paid out of earnings and profits are treated as dividends. The theory is that all earnings and profits will eventually be paid out as dividends and the current value of the account is a good measure of the present value of the future dividends.

In a commentary on Auerbach's paper, Bill Andrews argues that many corporations do not regularly update their earnings and profits accounts.⁴⁹ With the nimble dividend rule,⁵⁰ if a corporation has current earnings and profits, there is no need to compute accumulated earnings and profits, which means that many corporations may not need to compute their accumulated earnings and profits. The

⁴⁹ William D. Andrews, *Comment on Debt, Equity, and the Taxation of Corporate Cash Flows*, in *DEBT, TAXES, AND CORPORATE RESTRUCTURING* (John B. Shoven & Joel Waldfoegel eds., 1990).

⁵⁰ Section 316(a)

transition tax would, however, be based on accumulated earnings and profits. Determining the value of accumulated earnings and profits requires going back to the formation of the corporation which, for some corporations, could be a long time in the past. Auditing of the reported value would be difficult.

Leaving aside this problem, it is not clear that earnings and profits is the correct value. Consider a corporation that is formed with \$100 the day before we pass a new equity integration system that uses an explicit transition tax. The transition tax should be equal to the present value of the dividends on the \$100 of pre-existing equity. The corporation, however, has \$0 (or one day's worth of) earnings and profits. There would be no transition tax even though there is \$100 of old equity.

The value of the transition tax should be the present value of the reduction in tax on existing equity. In theory, if integration were a surprise, this would be measured by the change in the stock price on the effective date. As discussed above, a corporation with \$100 of earnings and with a 40% dividend tax, would be worth \$60 because that is the present value after-tax flows that can be received by owning the stock. If the dividend tax were reduced to 10%, its value would go up to \$90. The \$30 increase in value is the windfall that should be taxed under the explicit transition tax system.

This amount, however, may be hard to measure because integration would not be a surprise and because of the usual problems with making empirical estimates in a complex environment. A particular problem is that the transition tax that is expected to be imposed would affect the value of stock after enactment but what we want to know the value of the stock would be without the transition tax. In the example above, if the transition tax when the dividend tax rate is reduced to 10% was \$30, the value the stock would not change. But determining the \$30 tax required observing a change in the stock value.

An alternative to trying to observe the price change is to use a proxy formula. Suppose that the pre-enactment value of the company (based on the stock price) is V_1 . This value is the present value of after-tax distributions. If the present value of pre-tax distributions is x , the present value of after-tax distributions can be expressed as $V_1 = x(1 - d_1)$, where d_1 is the current dividend tax rate. We want to

know what the windfall gains would be from complete integration, which means that we want to know what the stock price would be if we enacted complete integration.

As noted, the observable stock value after NEI is enacted, however, does not reflect this windfall: the stock value is reduced by the transition tax, which is the value we are trying to calculate. Instead of directly observing this value, we have to infer it. If the dividend tax rate goes down to d_2 , using the same formula with the new dividend tax rate, we get a value of $V_2 = x(1 - d_2)$. We want to know $V_2 - V_1$. We cannot directly observe x or V_2 but we can express the desired value without reference to these values: $V_2 - V_1 = V_1 \frac{d_1 - d_2}{1 - d_1}$. All of the required values should be observable, at least for public companies: V_1 is the stock value prior to enactment, and d_1 and d_2 are the dividend tax rates.

This formula does not, however, account for shares held by tax-exempt investors or foreigners, who may not receive benefits of integration. We would have to adjust the formula for shares that do not receive tax benefit under the chosen complete integration system.

The adjustment will depend on the integration system that is used. For example, under a dividend exclusion system, taxable shareholders have their dividend tax reduced but tax exempt shareholders would not. Foreign shareholders would be somewhere in-between and it would depend on the extent to which withholding taxes are retained. The correct transition tax under a dividend exclusion system would require knowing the tax attributes of the ultimate shareholders of the corporation.

Other systems of integration may offer reduce taxes for all shares, even those held by tax-exempt and foreign shareholders. For example, Auerbach proposes the transition tax in combination with a dividend deduction system. In a simple dividend deduction system, a deduction is allowed for all dividends regardless of the type of shareholder. In this case, we would not need to know the makeup of the ultimate shareholders. In general, the information required to compute the transition tax, therefore, will depend on the policy choices in the accompanying complete integration system.

If we need to know the tax attributes of the ultimate shareholders of the corporation, it will greatly complicate the computation of the transition tax. As noted, tracing through dividends to their ultimate owners (and determining their tax liability) is not a straightforward exercise and estimates vary. Moreover, these estimates, as difficult as they are, are done on an aggregate basis. Different corporations may have different types of shareholders. An accurate transition tax for a given corporation would have to estimate the present value of future tax reductions on that corporation's shareholders. This level of detailed measurement is likely infeasible, which means that instead, we might have to use a sectoral or even a simple national-level estimate.⁵¹

Regardless of how the measurement is done, it would have to be based on a date in the recent past rather than after enactment (or introduction of the legislation). The reason is that if the date is known in advance, there would be an incentive for taxable shareholders to sell their stock to tax-exempt shareholders before the measurement date.

An additional issue with determining the amount of tax reduction under an integration system is that some distributions may be in the form of share repurchases and liquidations rather than dividends. Depending on the integration system chosen, repurchases and liquidation payments may be treated differently than dividends. For example, the Treasury 1992 dividend exclusion recommendation would have allowed shareholders to exclude dividends but not share repurchases, which would instead be treated as taxable sales.⁵² The American Law Institute 1993 imputation credit proposal, however, would allow credits for share repurchases and liquidation payments.⁵³

⁵¹ An alternative is that the burden of future dividend taxes is born equally by all shareholders because the taxes are capitalized into the stock price. If this is true, measuring shareholder types for each corporation would not be necessary, although an aggregate measurement would be.

⁵² DEPARTMENT OF THE TREASURY, *supra* note 2. (recommendation 4)

⁵³ AMERICAN LAW INSTITUTE, *supra* note 2. (proposal 7a)

If the system of integration does not offer tax reductions to share repurchases or to liquidation payments, these amounts would have to be subtracted from any formula used to estimate the change in stock value to compute the transition tax. These amounts, however, are effectively unknowable. We could perhaps try to infer future repurchase policy from past repurchases, but there is no guarantee that this would be remotely accurate. It is not clear how liquidation payments could be estimated.

A final issue is that the integration system may not offer tax reductions for all dividends. For example, the Treasury dividend exemption system would only exempt distributions from income that was previously taxed at the corporate level. Distributions of income that was not taxed, such as income protected by corporate tax preferences, would not be exempt. To the extent that dividends are not exempt, the transition tax has to be reduced. Once again, estimating this amount would not be straightforward.

To summarize, an explicit transition tax is simple in conception but estimates of the tax would be crude. Its value would depend on a number of policy choices made in the accompanying complete integration system. Nevertheless, although determining the tax would be complex and likely to be highly contested, once this is done, the system would be a complete integration system, which would mean that churning and other complexities of NEI would not be present. Moreover, inaccuracies, if they are not too severe, may have few if any efficiency effects because the transition tax is effectively lump sum. Therefore, a reasonable proxy may be sufficient.

4.2 Tracing and the 1982/1989 ALI proposals:

Bill Andrews, as reporter for the 1982 and 1989 ALI subchapter C studies, proposed a system of NEI that would allow a deduction for dividends on new and only new equity. The key idea is to estimate the total amount of new equity for a corporation and to allow a deduction for an imputed return on that amount, effectively treating the imputed return on new equity like interest expense. Because it involves tracing and imputing a return, this system is necessarily going to be crude, and will involve simplifications and line drawing.

Note that although Andrews proposed a pure dividend deduction system, the tracing mechanism could be combined with other forms of integration. For example, the system could be combined with a dividend withholding tax or equivalently, with an imputation credit system. It could also be combined with a dividend exclusion system by allowing only specified dividends to be excluded from income.

Andrews made a number of choices in designing his system. Analyzing the particular design choices he suggested, however, are less important than understanding the key elements that any such system would have to have.⁵⁴ Therefore, for the most part, I consider here a generic tracing system rather than his particular proposal.

The central element any such system is an account that tracks new equity. The simplest component of the account is the value of new stock, which for the most part would be the cash sales price of the stock. Stock issued for property or for services would be more difficult to value.

The account would have to be reduced for reductions in equity. For example, suppose that a corporation had \$100 of old equity. If it issued \$100 of new equity

⁵⁴ Andrews may not have been thinking about his system as an NEI system. We can see that in his commentary on Auerbach's proposed explicit transition tax. Andrews, *supra* note 50. On page 133, he states that his proposal was an attempt, in part, to distinguish between an interest-like return on amounts contributed to a corporation and the return on accumulated or retained earnings. He concludes "although many of the effects of the reporter's [Andrews's] proposals would be considerably like integration without windfalls, their origin and overall effects is much humbler: simply to let equity contributions be treated henceforth for income tax purposes the way borrowing has been treated all along."

Because of this difference in focus, Andrews's proposal would allow a deduction each year for an imputed return on contributed capital but this amount does not accrue and accumulate if the corporation does not pay dividends. Warren, in 1981, criticized the ALI for this aspect of the proposal. Warren, *supra* note 2. Moreover, Andrews's proposal does not reduce the account, called the Contributed Capital Account or CCA, by ordinary dividends. Instead, he would require the CCA to be reduced only by dividends above a specified return. An approach that designed to be a NEI system, would probably make different choices on these and other dimensions.

and then repurchased \$100 of stock, it should be treated as having no net new equity. All it has done is churn. Stock repurchases would be a clear example of a reduction in equity, but the account would have to have rules for dealing with dividends. Andrews would have reduced the account only for large dividends but all dividends reduce outstanding equity, so it might be better to reduce the account by dividends paid regardless of size.

Reductions in equity may also occur in mergers and acquisitions. For example, if one corporation purchases the stock of another for cash, cash will have left corporate solution, which means that there should be a reduction in the account. Rules would also be needed for how the account is split among subsidiaries because subsidiaries may have minority shareholders or may be spun off. For example, if a corporation has \$100 of assets, and contributes \$30 to a new subsidiary which it spins off, we would need to determine how much, if any, of the account shifts to the new subsidiary.

Finally, we would need rules for how the account adjusts over time. Presumably the account would increase in each period by the imputed return.

Once we have the account set up, the system needs to impute a return to the account, which means determining the appropriate interest rate. Because stock does not have a fixed return and because the stock of different companies will have different expected returns, any value will be just a guess. The question in choosing the value is whether a single value should be used for all corporations or whether we make an attempt to determine values for different corporations or different types of corporations. For example, asset pricing models could be used to adjust for the riskiness of different companies so that the imputed return better reflects their true cost of capital. If we do not do this, risky companies, which should have higher expected returns, would effectively bear a tax penalty.

Finally, the system would need a stacking rule to determine what portion of a dividend is paid on new equity and what portion is paid on old equity. To illustrate, if a corporation has \$900 of old equity and \$100 of new (as measured by the account), we need to decide what portion of each dividend is paid on the new. Pro ration may make sense but it would require us to not only determine the amount of new equity (which is tracked by the account) but also the amount of

old equity. Another possibility, which is what Andrews recommended, is to stack dividends first against new equity. Under this approach, dividends up to the imputed return on the \$100 of new equity would be eligible for integration benefits (such as being deductible). Any dividend above this amount would be treated as paid on old equity. This stacking rule seems arbitrary but it is also simple.

As can be seen from this description, a tracing system would be complex and would necessarily be crude. Almost any set of rules would leave some room for manipulation.

Beyond the complexities and inaccuracies of the system, and the resulting manipulation and avoidance, a key problem is that it would be effectively perpetual. That is, all of the complexities and the incentives to manipulate would be around for a very long time. An explicit transition tax, by contrast, is initially complex but then disappears. One possibility for a tracing system is to phase it out over time on the theory that over time, more and more equity will have been issued post-enactment, which would mean that the need for the system would go down.

4.3 Consumption tax approaches.

The basic idea behind a consumption-tax approach to NEI is that a cash-flow consumption tax imposes a one-time tax on existing capital and exempts future returns on all capital. This is exactly what we want for stock returns in an NEI system: we want to combine complete integration with a one-time transition tax. Rather than doing that explicitly, as discussed above, we can do it implicitly by taxing stock on a consumption basis. To explore this in more detail, I first lay out the familiar effects of a cash-flow consumption tax. Then I discuss two different ways of implementing a cash-flow tax for stock, one at the corporate level and one at the shareholder level.

4.3.1 Cash-flow tax basics.

A cash flow consumption tax allows an immediate (refundable) deduction for the cost of investments and imposes a tax on the proceeds from the sale of investments.⁵⁵ To see how this works, consider an investor who has \$100 of capital that he wishes to invest and he can get a return of \$110 in one year. Assume that the tax rate is 40%.

Suppose that a cash flow tax is already in place. The individual newly investing \$100 (say, from his salary) would claim an immediate deduction of the \$100. With a 40% tax rate, the deduction is worth \$40. When the investment is sold for \$110, the individual owes taxes on the \$110 of proceeds, so the tax is 40% of \$110, or \$44.⁵⁶

The tax of \$44 is precisely the future value of the \$40 tax savings from the deduction (computed using the rate of return on the available investment). The net present value of the tax savings and the tax is zero. Therefore, the investment is effectively tax-exempt. It is as if the government gave the investor, in the form of a deduction, an additional \$40 to invest on its behalf, and the government claims the return on that investment, in the form of taxes.

Now consider what happens to investments that are already in place at the time the cash-flow tax is imposed. Suppose that the day before the cash-flow tax is imposed, the individual invests the \$100. Because there was no cash-flow tax at the time of the investment, the individual could not deduct the \$100. The next day, the cash-flow tax is imposed. Next year, when the individual sells the

⁵⁵ See, e.g., NICHOLAS KALDOR, AN EXPENDITURE TAX 176–178 (1955); William D. Andrews, *Consumption-Type Or Cash Flow Personal Income Tax*, A, 87 HARV. LAW REV. 1113–1188 (1973); DAVID F. BRADFORD, *Transition to and Tax-Rate Flexibility in a Cash-Flow-Type Tax*, in TAXATION, WEALTH, AND SAVING (2000).

⁵⁶ This is simplified somewhat. The investor would have to invest the tax savings and when he does so, this generates another deduction and more savings. Eventually, the total investment is $\$x/(1-t)$ where $\$x$ is the initial, pre-tax investment and t is the tax rate. The same logic used in the simplified presentation in the text applies to the more complete case.

investment for \$110, he owes \$44 in taxes because of the cash flow tax. The net tax is \$44.

The tax of \$44 when the investment is sold is the same in present value terms as a tax of \$40 when the investment was made. Therefore, we can think of the cash-flow tax as imposing a tax on the value of existing investments at the time of enactment, collected (in future value terms) when the investments are sold.

As a final case, suppose that the investor makes the \$100 investment after enactment but now suppose that the investment has a higher than normal return, say a return of \$120 instead of \$110. That is, assume that the investment earns a 20% return when the normal return for investments of this level of riskiness is 10%. With a \$100 investment, the investor is able to earn \$10 of economic profits. The investor gets a \$40 deduction when he makes the investment and owes \$48 when he sells it. We can decompose the tax on sale as a \$44 tax on the normal \$110 return and a \$4 tax on the \$10 of additional profit. The \$44 tax is, in the present value terms, the same as the \$40 deduction, so these offset. The investor still owes the additional \$4: the \$10 of profit is fully taxed. That is, a cash-flow tax not only taxes transition capital. It also taxes any returns above the normal rate of return, which I will call economic profits or, simply, profits.⁵⁷

The goal is to use these economics to create an NEI system. There are a number of possibilities. I will explore two.

4.3.2 Corporate cash-flow tax on stock

Suppose that we allow corporations a deduction on the value of any stock that they issue after the date of enactment. Note that this means that they would get a deduction on the *receipt* of cash or property when they issue stock. At the same time, shift the dividend tax currently paid by shareholders to the corporate level: the corporation pays a tax on any distribution with respect to its stock (whether a dividend, repurchase, or liquidation payment) but shareholders are not taxed on the receipt of the distribution. This creates a cash-flow tax for stock at the

⁵⁷ These amounts are also sometimes called inframarginal returns.

corporate level, though with the tax reversed from the normal case: receipts generate a deduction while outlays generate a tax. The reversal is because the issuer of the securities (the corporation) is taxed instead of the purchaser. The issuer is simply standing in place of the investor, who would have the opposite flows and would, under a cash-flow system, be able to deduct cash outlays and been taxed on cash inflows.

For all stock issued after enactment, the economics of a cash-flow system ensure that the present value tax on stock investments is zero (other than the corporate tax itself). The tax paid on distributions equals the benefit of the deduction when the stock is issued. New equity does not bear a dividend tax under this system. Old equity, however, would not have received a deduction when issued. The distributions tax substitutes for the current dividend tax, so effectively that tax stays in place. The system removes the dividend tax on new equity but not old equity, as desired.

Those familiar with the Meade Commission report will recognize this system as what they called an S tax.⁵⁸ It is a cash-flow consumption tax on stock flows at the corporate level. In this case, however, we are combining an S tax with a corporate-level income tax because our goal is corporate integration. The Meade Commission considered a pure S tax because they were examining a wholesale shift to a consumption base.

We can also see this as a version of the Andrews/ALI tracing system. The tracing system allows a deduction for future distributions on new stock. A cash-flow system instead allows a deduction for the value of the stock up front. But because the value of the stock should be equal to the present value of future distributions, the two systems have (roughly) the same present value (leaving aside the inevitable inaccuracies in the ALI system).

The cash-flow system, however, is much simpler than the ALI system because we would not have to keep track of an account that measures new equity

⁵⁸ INSTITUTE FOR FISCAL STUDIES, *THE STRUCTURE AND REFORM OF DIRECT TAXATION* (1978).

and we would not need to determine an imputed return. A cash-flow system does both automatically and far more accurately than an explicit system would.

Note that the cash-flow system also has the potential to greatly simplify the taxation of corporate distributions. In a discussed in a separate section of the ALI report and as further explored in a paper by George Yin,⁵⁹ shifting the dividend tax to the corporate level could greatly simplify the tax rules governing distributions. It would eliminate the need for distinctions between distributions and redemptions and for the host of related rules that try to keep taxpayers from taking advantage of the basic rules. Instead, all distributions on corporate stock, regardless of form, would have the same tax.

The system is not entirely without complexities and economic issues, however. If it were seriously pursued, many would likely arise. Consider the following five.

First, note that there is an important economic difference between most integration proposals and this system. Most integration systems, whether NEI or complete, exempt the entire return to stock investments (with perhaps policy-based exceptions such as a decision to tax dividends that are paid out of income that has not been taxed at the corporate level). A corporate cash-flow system for stock exempts only the normal return. If stock earns an economic profit, the present value of the tax on distributions will exceed the benefit of the deduction when the stock is issued. Economic profits, therefore, would be taxed by the normal corporate tax and again by the distributions tax under a cash-flow system.

Second, when we remove the shareholder-level tax on dividends, it is not clear what to do about the shareholders' basis in their stock. Yin suggests that with a well-designed distributions tax we do not need to tax capital gains and would therefore not need to keep track of shareholder basis. Stock sales would be tax-free.

⁵⁹ AMERICAN LAW INSTITUTE, *supra* note 3; George K. Yin, *Different Approach to the Taxation of Corporate Distributions: Theory and Implementation of a Uniform Corporate-Level Distributions Tax*, A, 78 GEORGETOWN LAW J. 1837 (1989).

This would be a very substantial change (on top of integrating using an S-based tax, which would be a large change on its own). It is also not clear that it is necessary or appropriate. To the extent of shareholder basis, existing equity would not be taxed under current law.⁶⁰ Therefore, allowing a recovery of that basis is consistent with not giving a windfall to old equity.

The considerations regarding shareholder basis under a corporate cash-flow system for stock is similar to the considerations for regarding shareholder basis a dividend exemption system, such as that proposed by the Treasury in 1992. In both cases, shareholders are not tax in distributions but, if the basis and capital gains tax is retained, are taxed on sales. The Treasury decided to keep the basis/capital gains tax system under the dividend exemption system, and that same choice could apply here.⁶¹

Third, because the distributions tax is at the corporate level, it would be imposed on distributions to tax-exempts and foreigners. This is not a problem for new equity because the distributions tax on new equity has zero present value (other than for profits). The way exemption is achieved would be different: under current law tax-exempt investors are fully exempt from the tax on dividends while under a corporate-level cash-flow system for stock, their exemption would arise via the economics of a cash-flow tax. The exemption would, nevertheless be

⁶⁰ Dividends fully taxable and shareholders cannot use stock basis to reduce the taxable portion of dividends. Dividends, however, they reduce the value of stock so that when the stock is sold, shareholder basis is a greater percentage of value or may even produce a loss. For example, if a shareholder has basis in stock equal to its value, the shareholder does not bear any dividend tax notwithstanding that the basis cannot be used against dividends. Any tax on dividends is offset by a loss on the sale of the stock.

⁶¹ Note that when a shareholder sells stock back to the corporation in a stock repurchase, the shareholder would face a tax. This may seem inappropriate because the corporation would owe a distributions tax. But this is exactly what happens under the Treasury dividend exemption system. That system had neither a corporate level deduction for stock issuance nor a distributions tax. For new equity, however, those two taxes have present value of zero, which is what the Treasury system had. An alternative would be to exempt shareholders from capital gains taxes for repurchases, although doing so would introduce complexities because sales to different purchasers would generate different tax consequences.

preserved (other than for economic profits). Similar reasoning applies to foreign investors.

The more difficult issue is that the distributions tax would apply to distributions on old equity held by tax-exempts and foreigners. In effect, the transition tax under a corporate-level cash-flow tax on stock would be too broad because it would apply not only to distributions that would have been taxable under current law but also to distributions that would have been entirely or largely free from tax. Because the tax is at the corporate level, there is no straightforward way to adjust it to remove this tax.

On the one hand, this seems to make the tax vastly overbroad. Under my assumption that only $\frac{1}{3}$ of stock is ultimately held by taxable investors, the transition tax would be triple what it should be.

On the other hand, there may be few distorting effects because of this overly-broad transition tax. The investments are already sunk, so to some extent, such a tax would be lump sum. The set of arguments about whether such a tax would indeed be lump sum parallel the arguments about whether the tax on existing capital on imposition of a consumption tax would be lump sum. There is a large literature on the effects of this transition, with arguments going both ways.⁶²

To the extent that we do not want to impose this tax, corporations could be offered relief in a manner similar to the way that Auerbach's explicit transition tax was calculated. That is, Auerbach's explicit transition tax potentially required an estimate and an adjustment to the tax for shares held by exempts and foreigners. That same information could be used to provide a tax reduction under a corporate-level cash-flow tax on stock.

Fourth, there would be some potential avoidance transactions, and rules would be needed to combat them. The Meade Commission discusses a number of

⁶² Louis Kaplow, *Capital Levies and Transition to a Consumption Tax*, in INSTITUTIONAL FOUNDATIONS OF PUBLIC FINANCE, ECONOMIC AND LEGAL PERSPECTIVES 112–146 (Alan J. Auerbach & Daniel Shaviro eds., 2008).

them. One is that corporations could sell stock to one another to generate deductions without genuinely issuing new equity. The correct deduction is the net amount of stock issued by the corporate sector to the unincorporated sectors of the economy. As a result, the Meade Commission (p. 234) would not allow a deduction in these circumstances.

Another avoidance transaction highlighted by the Meade Commission (p. 241) is to leverage the company prior to enactment by issuing debt and redeeming stock. Then, after enactment, corporations could reverse the leverage by issuing new stock and repurchasing the debt. The stock repurchase prior to enactment would not be subject to the distributions tax but the stock issuance after would generate a deduction, effectively churning the stock. Rules would be needed to prevent this.

Fifth and finally, we would need to think about rules for subsidiary corporations and whether it makes sense for them to be on a cash-flow system for stock held by their parent corporation. Technically, such a system could work but it would be novel, and it would impose an additional layer of tax on economic profits and transition would be difficult.

To illustrate, suppose that a corporation purchases an asset for \$1. If it operated the asset itself, it would be taxed on any gains, including economic profits, at its rate. Suppose instead that it contributed the asset to a subsidiary. If the subsidiary were on a cash-flow system for its stock, the subsidiary would get a \$1 deduction. It would have a \$1 basis in the asset and would be taxed on any gains, including economic profits. When it distributes the proceeds to the parent, it would pay a distributions tax. If there are no profits, this distributions tax would, in present value terms, offset the deduction for the stock issuance, so the overall level of tax would be the same as without the cash-flow system. But if there were profits, the cash-flow system would impose a present value tax on the profits, a tax that would be on top of the income tax already paid by the subsidiary.

Moreover, there is no need to impose a transition tax on existing equity of subsidiary corporations, which would be one of the effects of imposing a cash-flow tax. The tax on existing equity is to prevent windfalls that would be

generated by lowering dividend taxation. But dividends of subsidiary corporations are not taxed under current law, so there is no need for a transition tax. Moreover, the tax could be positively harmful because it would tax businesses that organized using subsidiaries higher than similar businesses that organized using divisions.

As a result, it would make sense to keep the taxation of subsidiary corporations the same as it is under current law rather than putting them on a cash-flow system. Moreover, this logic likely applies to all stock held by corporations. The design question would be to what extent can corporations distinguish the taxation of distributions based on the type of shareholder, and, moreover, how do we deal with the transfer of stock between corporate and other shareholders. Although there are likely solutions, no solution is likely to be perfect.

4.3.3 Shareholder level cash-flow tax

An alternative is to impose the cash-flow system at the shareholder level. Shareholders would get a deduction for stock purchases and would be taxed on distributions. The basic economics would be the same as the tax at the corporate level: under a cash flow system, the normal return is exempt, profits are taxed, and old equity is taxed.

The key change would be who remits the tax. Unlike with corporate-level remittance, with shareholder-level remittance, the tax attributes of the shareholder determine the amount remitted. Taxable shareholders would be subject to the cash-flow tax and would have the results just described (exemption of the normal return, taxation of profits, and a tax on existing equity). Absent special rules, tax-exempt shareholders would not be subject to the cash-flow system because of their exemption. Similarly, foreign shareholders would likely be subject to the cash-flow system because they do not normally pay U.S. tax on stock sales. Therefore, tax-exempt and foreign shareholders would not have any change from current law, and their taxation would be as described in Tables 2 and 3 above. As a result, the tax on transition and on profits would fall only on taxable investors. If taxable and tax-exempt shareholders own $\frac{2}{3}$ of corporate tax, this would be a substantial difference in results compared to a corporate-level cash-flow system.

A second difference between the shareholder-level and corporate-level tax is the treatment of sales between investors. As discussed, with a corporate-level cash-flow system, we might be able to keep the capital gains tax and basis system for sales of stock, or we might possibly be able to eliminate the capital gains tax and basis system. With a shareholder-level cash-flow tax, we would have to tax stock sales on a cash-flow basis and eliminate the basis system. If we did not, there would be relatively simple arbitrages which take advantage of the differences between a cash-flow system and a basis system.

To illustrate, consider a tax-exempt investor, and suppose that we retained the basis system for taxable shareholders while also allowing them a deduction for stock purchases. If the tax-exempt were to purchase stock directly from a corporation, it would not get a deduction for the purchase and would not be taxed on distributions. To get the equivalent of a deduction for the purchase without a corresponding tax on distributions, a taxable shareholder could purchase the stock from the corporation and sell it to the tax-exempt. If there were basis, the taxable shareholder would get a deduction but would not be taxed on sale. The tax-exempt entity would then receive the distributions free of tax. We could not readily allow a deduction for stock purchases and at the same time use allow shareholders to get a cost basis in their stock.

To implement a pure cash-flow system for stock, we could eliminate all basis in stock, which is what is often contemplated (for all assets) on a switch to a consumption tax. This result would likely raise objections. A better approach might be to allow taxable shareholders to amortize their basis over time but to detach the basis from stock sales, treating sales on a cash-flow system. This approach would mean that shareholders would still get the benefit of their existing stock basis but at the same time would allow stock sales to be taxed under a cash-flow system.

Putting stock on a cash-flow system would mean that sales between different types of shareholders would have very different effects than they do under current law. To understand the effects of sales, we need to consider four possibilities (treating tax-exempts and foreigners the same for the purpose): sales from taxable shareholders to other taxable shareholders and to tax-exempt or foreign

shareholder, and sales from tax-exempt or foreign shareholder to similar shareholders and to taxable shareholders.

A sale from a taxable shareholder to another taxable shareholder would, under a cash-flow system, generate a tax on the full value of the stock to the seller and an offsetting deduction to the purchaser. There would be no net tax. In effect, the deduction attributable to the investment in the stock would be transferred to the purchaser. The seller, having gotten a deduction when he purchased the stock, would reverse that deduction by being taxed on the sale.

A sale from a taxable shareholder to a tax-exempt or foreign shareholder would generate a tax on the full value of the stock to the seller but no deduction for the purchaser. This makes sense because the seller would have gotten a deduction for his initial purchase, so we want tax his sale. We might think of the net tax on the sale as an exit tax: when the stock is shifted from a taxpayer to a non-taxpayer, we want to impose a tax so that gains do not escape the system.

Sales from foreign or tax-exempt shareholders to foreign or tax-exempt shareholders would not generate any tax because the seller would not be taxed on its receipt and the buyer could not claim a deduction. Finally, a sale from a tax-exempt or foreign shareholder to a taxable shareholder would generate a net deduction: the seller would not be taxed but the buyer would get a deduction. This is essentially the reverse of the exit tax: in this case, the stock moves into the taxable sector, so we need to allow a deduction because all sales proceeds or distributions on the stock will be taxable.

The analysis of corporate shareholders under a shareholder-level cash-flow system parallels the discussion of corporate shareholders under a corporate-level cash-flow system. For similar reasons, it would not likely make sense to put corporate shareholders under a cash-flow tax for their stock. In a shareholder-level system, however, the design considerations might be simpler because the tax treatment (no cash-flow tax) and the relevant attributes that determine that treatment (being a corporate shareholder) are determined at the same place.

4.4 Summary

The analysis of the three NEI systems was preliminary. It would take much more study before such a system could be implemented. The preliminary analysis shows that none of the systems are without problems. On the other hand, it also shows that there are potentially feasible NEI systems and NEI should not be dismissed out of hand in favor of complete integration.

5. Summary and conclusions

The efficiency benefits of corporate integration only require that integration be given to new equity, not old. This is true regardless of whether one thinks that the new view or the traditional view better describes the corporate tax. Leaving aside administrative considerations, new equity integration is strictly better than complete integration. It provides all of the efficiency benefits of complete integration at a fraction of the cost.

The key problem with NEI that it must distinguish new equity from old. I considered three possible systems for doing so: an explicit transition tax, a tracing system, and a cash-flow system (at either the corporate level or at the shareholder level). Each presents issues. The explicit transition tax would be relatively crude but has the advantage of being temporary and not interfering with the normal tax rules. The tracing system would be complex and difficult to implement and would also likely be crude. It would not accurately measure the returns to new equity but it would be workable. It has been used in the past. The two cash-flow systems would be novel and to some extent, unintuitive. There would be a substantial number of implementation issues. Of the three, the explicit transition tax would be the simplest and cleanest method of preventing windfalls to existing equity and, in my view, would be the best choice.

The policy question is whether the complexities of the NEI systems are worth their quite substantial cost savings. Although we do not know the answer without a much more detailed exploration of the issue, the answer, I believe, is potentially yes. As a result, future research should focus on NEI systems rather than complete integration systems.