THE CASE FOR TRADABLE TAX CREDITS

CLINTON G. WALLACE*

* J.D. Candidate, 2012, New York University School of Law; A.B., 2004, Princeton University. The author would like to thank Professor Joshua Blank for providing invaluable guidance on all sorts of school and career issues, including helping get this note started, editing and advising throughout the writing process; Rachel Beller, Daniel Friedman, Moshe Schwartz and the rest of the *Journal of Law & Business* editors who shepherded this project from start to finish; and Jenna Wallace, Raven McCrory, Bruce Wallace and Nick Wallace for thinking through these issues and providing thorough and conscientious editing. All errors are the author's own.

I.
INTRODUCTION

The federal tax system has long been a major tool for implementing social policy and shaping the nation's economy. The tax system influences decisions about investing and borrowing, owning a home, procuring health care services and insurance, supporting charitable organizations. There are numerous mechanisms used to implement policy through the Internal Revenue Code: special rates, deductions, credits, and so on.

In recent years, academics have provided much favorable analysis of refundable tax credits. However, academics have paid almost no attention to a similar device – the tradable tax credit. Tradable tax credits are a form of tax incentive designed to facilitate the exchange of the value of a tax credit between taxpaying entities. Such an exchange allows a taxpayer with no tax liability to sell a tax credit to a taxpayer with tax liability who can take advantage of the tax credit. The tradability thus allows the qualifying taxpaying entity to recognize the benefits of tax incentives for which it is eligible regardless of tax liability. In contrast, with a non-tradable tax credit, in order to take advantage of the incentive – and thus fulfill the government policy objective – a taxpaying entity must have tax liability against which to offset the credit amount. Refundable tax credits achieve the same effect as tradable tax credits,[1] but the refundable mechanism requires the government to make direct payments; tradable credits avoid direct expenditures by the government.

Although often controversial, implementing social and economic policy through the tax code makes sense in some situations. If the government wants to induce activities that create positive externalities,[2] the tax code provides an easy way, often

1. *See infra* Part III.A. A refundable tax credit involves the government making direct payments to a taxpayer if necessary so that the taxpayer receives the benefit of a credit regardless of tax liability.

2. *See* PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, ECONOMICS 36 (16th ed. 1995) ("Externalities (or spillover effects) occur when firms or

with minimal implementation costs, to reach many people. But traditional tax policy tools raise a host of problems. Deductions, which are not uniform across income levels, may be inefficient and inequitable.[3] For example, the home interest mortgage deduction is far more beneficial in absolute dollar terms to income earners in higher marginal tax brackets than it is to those in lower tax brackets.[4] Tax credits that are nonrefundable result in behavioral distortions and inequity by only being fully available to taxpayers with federal tax liability.[5] If the government decides to incentivize an activity by providing a $1,000 nonrefundable tax credit, only those taxpayers with at least $1,000 of tax liability will receive the full incentive; everyone else receives some lesser amount that may not be enough to spur the desired activity. Refundable tax credits require direct government payments that may be politically unpalatable.[6] For example, the Earned Income Tax Credit

---

people impose costs or benefits on others outside the marketplace."). Externalities thus "involve involuntary imposition of costs or benefits." *Id.* A positive externality provides a benefit to society, so the government may want to induce actions that yield positive externalities. One basic example of a positive externality is associated with the use of deodorant: the consumer of deodorant benefits from the product, and others around the consumer receive a benefit as well.

3. *See infra* Parts III.B & III.D. Deductions reduce reported gross income (above the line deductions reduce gross income which yields adjusted gross income; below the line deductions and exemptions reduce adjusted gross income to yield taxable income).

4. If a taxpayer has $50,000 of gross income and makes $5,000 of interest payments on a qualifying mortgage loan, the taxpayer can take a below the line deduction of $5,000, resulting in taxable income of $45,000. A taxpayer with $50,000 of income is in the 25% bracket, so the $5,000 deduction reduces his tax liability by $1,250. A taxpayer with $200,000 of income is in the 33% bracket, so if he makes the same $5,000 of interest payments the deduction would reduce his tax liability by $1,650.

5. In contrast to refundable tax credits, nonrefundable tax credits are limited by the tax liability of the beneficiary. For example, the Plug-In Electric Vehicle Credit, I.R.C. §§ 30 and 30D, provides a credit of $2,500 for the purchase of certain electric vehicles. Because the credit is nonrefundable, a taxpayer who has tax liability of $2,000 will only be able to take advantage of the tax credit to the extent of that tax liability. The incentive value of the $500 difference between the value of the credit and the taxpayer's tax liability disappears.

6. *See infra* Part III.C.

(EITC)[7] has raised the ire of fiscally conservative politicians who view the payments as handouts and are leery of fraud and abuse.[8]

The tradable tax credit arrangement has received little attention from policymakers or academics beyond narrow critiques of enacted provisions. Currently existing tradable tax credits include the Low-Income Housing Tax Credit (LIHTC)[9] and the New Markets Tax Credit (NMTC).[10] Additionally, the safe harbor leasing provisions, a complex form of tradable tax credit,[11] were enacted and quickly repealed in the early 1980s. Refundable tax credits, on the other hand, have wide support in academic circles.[12] This paper argues that the

7. The EITC is an anti-poverty program that provides income assistance to the working poor through a refundable tax credit. If the filer of a tax return qualifies for the EITC, the IRS will apply the credit to offset any tax liability, and then will make a payment to the taxpayer for the credit amount that exceeds tax liability. If the filer has zero tax liability, the IRS makes a direct payment to the filer for the amount of the credit as if it were the refund of excess tax amounts paid.

8. *See, e.g.*, 157 Cong. Rec. S4,626 (daily ed. July 18, 2011) (statement of Sen. Kyl) ("How fair is that, when the bottom 50 percent pay nothing and all of them receive benefits from the government and 30 percent of them receive an EITC benefit or payments back from the government in some other form, directly to them."); 149 Cong. Rec. H5,588 (daily ed. June 19, 2003) (statement of Rep. Portman) ("We now have a 30 percent error rate [with the EITC], we are told by GAO. It was 25 percent the last time I looked. Now they say it is 30 percent. Even 25 percent, that is wholly unacceptable. I think that is agreed to, I would hope, on both sides of the aisle. A 25, 30 percent error rate, we are talking about $10 billion a year is mispaid under the EITC .... I would love to hear the ideas from the other side of the aisle as to what they would do about this. I think this is one where if continue to ignore it [sic], continue to say no, we are going to tie the IRS's hands, even when they show flexibility as to how they are going to deal with it, what is going to happen? You are going to lose tremendous support for the EITC.").

9. *See infra* Part II.B.1.

10. *See infra* Part II.B.2.

11. *See infra* Part II.B.3.

12. *See* Lily L. Batchelder et al., *Efficiency and Tax Incentives: The Case for Refundable Tax Credits*, 59 Stan. L. Rev. 23 (2006); John M. de Figueiredo & Elizabeth Garrett, *Paying for Politics*, 78 S. Cal. L. Rev. 591, 595 (2005) (advocating for a refundable tax credit to encourage contributions to political campaigns); Jonathan Barry Forman, *Beyond President Bush's Child Tax Credit Proposal: Towards a Comprehensive System of Tax Credits to Help Low-Income Families with Children*, 38 Emory L.J. 661, 663 (1989) (proposing various refundable tax credits to benefit children in low-income families); Sean M. Stegmaier, *Tax Incentives for Higher Education in the Internal Revenue Code: Education*

federal government should make use of tradable tax credits to induce certain behaviors that create positive externalities because tradable tax credits, if properly structured and implemented, can offer benefits of efficiency, equity and political feasibility that are not available with other types of tax incentives.

The current political dynamics may facilitate the first broad-based tax reform effort in a quarter century; as such, serious reconsideration of the efficiency, equity and political feasibility of tax incentives is an important and timely undertaking. The generally cacophonous debate about whether and how to reform the Internal Revenue Code (I.R.C.) has found some harmony of late, with policymakers across the political spectrum agreeing in broad terms that the I.R.C. must be simplified and made more efficient, and soon.[13] However, there remains substantial disagreement among various factions of scholars, commentators and policymakers as to the goals of the tax system, and how it should accomplish those goals. Some argue that the tax system should be focused on levying taxes sufficient for government operations while maintaining minimal interference in economic activity. Others see the tax system as a way to achieve distributional goals. Still others believe that the I.R.C. provides fertile ground to promote policies that would otherwise be carried out via direct expenditures.

A central front in this ideological battle is the appropriateness and wisdom of "tax expenditures." Tax expenditures are special provisions in the I.R.C. that look similar to spending programs except that they are achieved by targeted reductions in revenues collected rather than through actual govern-

---

Tax Expenditure Reform and the Inclusion of Refundable Tax Credits, 37 Sw. U. L. Rev. 135 (2008) (advocating refundable tax credits as the most efficient way to incentivize pursuing higher education).

13. *See, e.g.*, Nat'l Comm'n on Fiscal Responsibility and Reform, The Moment of Truth: Report of the Nat'l Comm'n on Fiscal Responsibility and Reform (2010), *available at* http://www.fiscalcommission.gov/news; Bipartisan Policy Center Debt Reduction Task Force, Restoring America's Future: Reviving the Economy, Cutting Spending and Debt, and Creating a Simple, Pro-Growth Tax System (Nov. 2010), http://bipartisanpolicy.org/projects/debt-initiative/about. One common theme in proposals for decreasing complexity and increasing efficiency is to broaden the tax base, which could be achieved in part by removing tax expenditures.

ment outlays.[14] Deductions, exemptions and credits, including tradable tax credits, are all types of tax expenditures. A paradigmatic example of a tax expenditure is the deduction for interest payments on home mortgages.[15] These payments are a deviation from the normative income tax in that mortgage interest is a form of personal consumption, so should be included in income. Mortgage interest is the only type of interest payment that is deductible by individuals, and no other housing payments (for example, rent payments) are deductible. The home mortgage interest deduction creates a significant government incentive for people to take out mortgage loans to buy homes, rather than paying in full or renting, and creates an incentive for people to borrow for home purchases rather than for other types of purchases.

Most reasonable assessments of the prospects of so-called "fundamental tax reform" allow that the tax expenditures in the current code will, at least to some extent, persist.[16] This paper will not address the broader tax reform discussion, but rather will assume that the tax code will continue to be used to achieve policy objectives that might otherwise be carried out via direct expenditures. There is some general agreement across the policymaking spectrum as to how to structure tax incentives: exclusions, exemptions and deductions are appropriate tools to accurately measure income;[17] in contrast, tax

14. In technical terms, tax expenditures are deviations from the normative income tax that result in foregone governmental revenues. *See* STANLEY S. SURREY & PAUL R. MCDANIEL, TAX EXPENDITURES (1985).

15. For an example of how the home mortgage interest deduction works, see *supra* note 4.

16. For example, *compare* the George W. Bush administration panel, PRESIDENT'S ADVISORY PANEL ON FED. TAX REFORM, SIMPLE, FAIR, PRO-GROWTH: PROPOSALS TO FIX AMERICA'S TAX SYSTEM (2005), which suggested maintaining various exclusions, deductions, and credits, *with* the Obama panel, NATIONAL COMMISSION ON FISCAL RESPONSIBILITY AND REFORM, *supra* note 13, which does the same. Across the political spectrum, certain tax expenditures are accepted as an inexorable feature of the tax code. It is also worth noting that a variety of tax expenditures persisted through the 1986 tax reform efforts, despite coming under fire before and during that effort. *See* Edward A. Zelinsky, *Efficiency and Income Taxes: The Rehabilitation of Tax Incentives*, 64 Tex. L. Rev. 973, 976 (1986) ("A surprisingly large number of provisions considered tax expenditures by the Treasury have survived tax reform in whole or in part.").

17. The term "measure" is used in tax analysis because income should not necessarily include all accretions of wealth. For example, I.R.C.

credits are appropriate to incentivize behavior.[18] There is also general agreement on two further propositions.[19] First, that tax incentives should be structured to be efficient, minimizing deadweight loss from market interference,[20] and giving taxpayers the most bang for their buck. Second, that fairness is a key concern in creating tax expenditures, as it is with any tax provision.[21]

Professor Lily Batchelder, along with former IRS Commissioner Fred Goldberg and economist Peter Orszag (hereinafter "Batchelder") have argued that for efficiency reasons the default form for behavior-inducing tax incentives should be the refundable tax credit.[22] The Batchelder article makes the convincing case that refundable tax credits are the most efficient form of tax incentive.[23]

Batchelder assumes that elasticity of behavior (that is, the propensity of a taxpaying entity to change its behavior given a change in the cost of the behavior) and the level of marginal externalities (the positive externalities created by a change in

---

§ 62(a)(1) provides for an above the line deduction for certain business expenses because accretions of wealth should be reduced by the costs of producing that wealth and thus business expenses should not be included in taxable income if "meaured" appropriately.

18. *See* Brian H. Jenn, *The Case for Tax Credits*, 61 TAX LAW. 549, 556-58 (2008) (arguing that credits are preferable to deductions and exclusions to incentivize behavior); STANLEY S. SURREY, PATHWAYS TO TAX REFORM 134-36 (1974).

19. *See* LAURIE L. MALMAN ET AL., THE INDIVIDUAL TAX BASE: CASES, PROBLEMS AND POLICIES IN FEDERAL TAXATION 8 (2d ed. 2002).

20. Deadweight loss is defined as "the loss of economic welfare arising from distortions in prices and output such as those due to monopoly, taxation, tariffs or quota." SAMUELSON & NORDHAUS, *supra* note 2, at 198.

21. *See infra* Part III.D. There are two complementary (and somewhat overlapping) ways to gauge fairness of the federal income tax: vertical equity and horizontal equity. Vertical equity is an assessment of whether taxpayers with greater income pay greater amounts of tax. Horizontal equity is an assessment of whether taxpayers with the same amount of income pay the same amount of tax. *See generally* MICHAEL J. GRAETZ & DEBORAH H. SCHENK, FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 28-29 (6th ed. 2009).

22. Batchelder et al., *supra* note 12.

23. Batchelder has a narrow focus, seeking to determine "how to efficiently structure a tax incentive intended to encourage behavior generating positive externalities, assuming some type of tax incentive has been deemed appropriate". *Id.* at 26. Batchelder sets aside "concerns about institutional comparative advantage, political process, and. . . distributive justice". *Id.* at 31.

behavior) do not change with income level. As long as there is no evidence to alter those two assumptions, the authors find that uniform subsidies minimize the efficiency losses society bears from behavior distortions.

Credits and, in particular, refundable credits, Batchelder argues, ensure uniformity. Unlike deductions, credits do not result in cliff effects at points where marginal tax rates change.[24] For example, a credit is worth the same amount to a taxpayer in the 33% bracket as it is to a person in the 28% bracket; with deductions, taxpayers with different marginal tax rates will receive varying benefits. Thus a credit creates a uniform subsidy whereas a deduction does not. Similarly, refundability ensures uniformity without a cliff effect for taxpayers with zero tax liability. That is, where one taxpayer has zero tax liability and another has ample tax liability, the subsidy provided by a nonrefundable tax credit is not uniform between the two taxpayers. Refundability addresses that issue, providing the same subsidy to each regardless of tax liability. Refundable tax credits provide additional efficiency advantages beyond nonrefundable tax credits as well, by smoothing household income shocks and macroeconomic fluctuations.[25] Batchelder finds that efficiency justifies the use of uniform refundable tax credits as the form of tax expenditure to incentivize socially desirable behaviors. The authors' conclusion comports with the longstanding academic preference for refundable credits on equity and simplicity grounds described briefly above, and it has been widely referenced in academic circles.[26]

But this academic agreement as to the most efficient and equitable form of tax expenditure has not resonated with politicians and policymakers. Tax incentives remain an inscrutable

24. A "cliff effect" exists where a small economic difference results in a significant variation in tax treatment. For example, if a tax provision allowed that anyone with an income less than $100,000 can take a $1,000 deduction, but anyone with an income greater than $100,000 cannot, there would be a cliff effect at an income of around $100,000. Taxpayers on one side of the cliff (who are covered by the provision) would have a very different tax result than those on the other side of the cliff (who are not covered by the provision).

25. *See infra* Part III.B.1.ii.

26. *See, e.g.*, Figueiredo & Garrett, *supra* note 12; Miranda Perry Fleischer, *Generous to a Fault? Fair Shares and Charitable Giving*, 93 MINN. L. REV. 165 (2008); Forman, *supra* note 12; Ruth Mason, *Tax Expenditures and Global Labor Mobility*, 84 N.Y.U. L. REV. 1540 (2009); Stegmaier, *supra* note 12.

hodgepodge of the various forms of deviations from the normative income tax (deductions, exemptions, credits), with seemingly little regard for the efficiency or equity of one form versus another. At key moments when tax incentive provisions have been created or amended, factors aside from academic assessments of sound policy have driven the structure of the expenditure.[27] Alternative policy prescriptions are needed to bridge the gap between normative academic conclusions and political realities.

This paper makes the case that tradable credits can surpass the efficiency benefits of refundable tax credits detailed by Batchelder while also providing political advantages that refundable credits cannot offer, and while matching the fairness of refundable tax credits. This analysis suggests certain forms of government incentives should be enacted from within the tax code as tradable tax credits.

The remainder of this paper proceeds as follows: Part II provides an overview of previously enacted, currently existing and proposed tradable tax credits. Part III shows that tradable tax credits can exceed the efficiency benefits of refundable credits, and examines the features of tradable tax credits that can make them a desirable policy tool from fairness and political perspectives. Part IV briefly considers tradable tax credits in practice, including concerns about tradable credits and circumstances in which tradable credits can be a useful alternative to other forms of government intervention. Throughout the paper, other types of government incentives, most often

27. The structures of some of the largest existing tax expenditures are explained by happenstance, path dependency, and the power of the status quo in federal policymaking. For example, the exclusion for employer-based health insurance is described as a "historical accident" given that employer-based health insurance emerged as a method for employers to get around wage controls put in place during World War II, and the exclusion was enacted in response to this practice. *See* Laura D. Hermer, *Private Health Insurance in the United States: A Proposal for a More Functional System*, 6 Houst. J. Health L. & Pol'y 1, 10-11 (2005). Similarly, the home mortgage interest deduction is a holdover from the time when deductions were permitted for all interest on money borrowed for personal consumption. *See* William T. Mathias, *Curtailing the Economic Distortions of the Mortgage Interest Deduction*, 30 U. Mich. J.L. Reform 43, 45-48 (1996) (describing the historical backdrop to the 1986 tax reform act, which eliminated deductions for personal interest, but, in the interest of promoting home ownership, created an exception for interest on home mortgages).

refundable tax credits, are used as a point of comparison to highlight the relative advantages and disadvantages of tradable tax credits.

II.
BACKGROUND ON TRADABLE TAX CREDITS

A. *Defining the Tradable Tax Credit*

For the purposes of this paper, a tradable tax credit[28] is a tax credit that may be conferred on a taxpaying entity other than the entity that qualifies for the benefit, thus allowing the qualifying entity to monetize the benefit.[29] Tradable tax cred-

28. "Tradable tax credit" is the most frequently used term to describe the tax incentive mechanism that is the focus of this paper. Other literature has used the terms "transferable tax credit" and "investable tax credit." *See, e.g.*, Mihir Desai, Dhammika Dharmapala & Monica Singhal, *Investable Tax Credits: The Case of the Low Income Housing Tax Credit* (Harvard Kennedy Sch. Faculty Research Working Papers Series, Paper No. RWP08-035, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1150302.

29. *Cf.* Batchelder et al., *supra* note 12, at 33 ("For purposes of our discussion, a refundable tax credit has four elements. It is a tax credit that is: (1) located in the federal income tax code, (2) administered in whole or in part through the tax system, (3) intended to induce certain behavior, and (4) 'refundable,' meaning that it is paid in cash when a tax unit has no federal income tax liability to offset (although frequently the claimant will have positive tax liability when other federal, state, and local taxes are taken into account.)"). The focus here is on the federal tax code, although there are a number of state-level tradable tax credits, *see, e.g.*, THE PENNSYLVANIA ACCOUNTANT, *A Guide to Pennsylvania Transferable Tax Credits* 8-9 (Fall 2007) (describing state improvement zone tax credits, research and development tax credits and film tax credits, all of which are tradable); Paul Rothstein & Nathan Wineinger, *Transferable Tax Credits in Missouri: An Analytical Review*, REGIONAL ECONOMIC DEVELOPMENT 53 (Federal Reserve Bank of St. Louis 2007) (describing six transferable state tax credits, and noting that 30 tax credits are deemed transferable but may require further authorization by the state legislature). The policy rationales discussed here apply equally at the state level, and in particular the political dynamics discussed below may be of interest to state policymakers. Additionally, states often follow on federal tax policy. For example, the federal Earned Income Tax Credit has spawned numerous state versions of the program that use federal qualifying guidelines. TAX POLICY CENTER, *State EITC Based on the Federal EITC*, http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=293 (last visited April 15, 2011). Sixteen states have enacted state Low-Income Housing Tax Credits, discussed in Part II.B.1, since the federal credit was created. Desai et al., *supra* note 28, at 2 n.2. Similarly, shortly after the creation of the New Markets Tax Credit, discussed in Part II.B.2, Louisiana created a state-level

its are typically intended to induce behaviors that generate positive externalities. This paper will not address the wisdom of judgments regarding what behaviors should be induced or are induced by government incentives. Rather, it assumes that policymakers can identify certain activities that generate positive externalities, and that without some form of government intervention these externalities will not be internalized and welfare gains[30] will not be realized. When such externality-creating-behaviors exist, the most efficient government policy is to target incentives to entities whose behavior is most elastic and who will therefore create the greatest positive externalities for the least cost.[31] However Batchelder submits that "the most reasonable and parsimonious default assumptions are that underlying price elasticities and behavior do not vary systematically across income distribution. . . [and] in the absence of any other knowledge or evidence, [those] default assumptions provide the best practical guide for policymakers."[32] This paper proceeds on the same assumption.

B. *Examples of Existing or Previous Tradable Tax Credits*

There are a small number of tradable tax credits currently in effect, and others that were previously enacted but have been repealed. The Low-Income Housing Tax Credit (LIHTC) and the New Markets Tax Credit (NMTC) are the two existing tradable tax credits. The safe harbor leasing provisions of the early 1980s notoriously met a quick demise. Each is discussed in turn below.

NMTC. Michael J. Novogradac, *Update on the New Markets Tax Credit*, 12 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 447, 456 (Summer 2003).

30. Samuelson and Nordhaus observe that "[a]n economy is efficient when it provides its consumers with the most desired set of goods and services, given the resources and technology of the economy." SAMUELSON & NORDHAUS, *supra* note 2, at 185. This paper will assume such efficiency is the goal of policymakers. This outcome may be said to maximize welfare, which in this context refers to the overall utility achieved by an economy (rather than "welfare" in the sense of a social program). *See also infra* note 106 and accompanying discussion.

31. *See* Batchelder et al., *supra* note 12, at 27-28 n. 15, 16.

32. *Id.* at n.16.

1. *The Low-Income Housing Tax Credit*

The LIHTC is an incentive for the development of low-income housing. The LIHTC provides a credit of 70% of the eligible basis for new buildings, and 30% of the eligible basis of renovated or repurposed buildings.[33] The eligible basis is the amount the developer spends on depreciable construction costs.[34] The credit is provided to the developer over a ten-year period, generally starting when the housing units are completed and put into service.[35] The housing must serve a population that conforms to one of two statutory definitions of low-income: either 20 percent of the residential units must be rent-restricted and occupied by individuals whose income is 50 percent or less of median gross income in the area, or 40 percent of the units must be rent-restricted and occupied by individuals whose income is 60 percent or less of the median gross income in the area.[36] Additionally, the building must be subject to a "long-term commitment" to low-income housing.[37] This means that for a period of not less than 15 years (and perhaps more, at the discretion of the state housing authority), the building must serve the low-income population defined above.[38] Credits are allocated by the IRS on a state-by-state basis according to a formula within the I.R.C.,[39] with state housing agencies selecting developers and projects to which the credits are provided.[40]

---

33. I.R.C. § 42(b).

34. *See* DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, LIHTC BASICS: CALCULATING THE QUALIFIED BASIS, *available at* http://www.hud.gov/offices/cpd/affordablehousing/training/web/lihtc/calculating/qualifiedbasis.cfm (most, but not all depreciable constructions costs count towards the eligible basis).

35. I.R.C. § 42(f)(1).

36. I.R.C. § 42(g)(1).

37. I.R.C. § 42(h)(6).

38. I.R.C. § 42(h)(6)(D). *See also* Tracy A. Kaye, *Sheltering Social Policy in the Tax Code: the Low-Income Housing Credit*, 38 VILL. L. REV. 871, 878 n. 37 (1993) ("This extended low-income housing commitment is an agreement with respect to the property, recorded pursuant to state law as a restrictive covenant, that requires the appropriate percentage of the building to remain available as rent-restricted units for low-income occupancy. Individuals who meet the income limitation applicable to the building . . . have the right to enforce this agreement in state court.").

39. I.R.C. § 42(h)(3).

40. Desai et al., *supra* note 28, at 3, 5.

There are three provisions in the I.R.C. that work in conjunction to make LIHTCs tradable. First, as described above, the credits are provided to the owner of a qualifying building, and there are rules that allow the credits to survive transfers of ownership.[41] Second, partnership tax rules allow that tax credits may be allocated to partners based either on the "distributive share" of such credits, or as allocated by the partnership agreement.[42] Third, the rules which generally limit the use of partnerships to take advantage of losses and tax credits arising from "passive activities" are waived for LIHTCs.[43] Together, these provisions allow for partnership structures in which a developer is the general partner responsible for the project and investors are limited partners who can use the LIHTCs to offset unrelated tax liability.[44] Each investor then receives and can use the benefits of the tax credits in proportion to their stake in the partnership, and can sell their share of the partnership freely (subject to limitations in the partnership agreement).

Tradability is a key aspect of the LIHTC. Developers need capital at the outset in order to fund the building of the units, not spread over the ten year period once the building is in service during which the credit is made available from the gov-

41. I.R.C. § 42(d)(7) provides that any taxpayer who acquires a building that qualified for LIHTCs under the prior owner can collect credits in the amount that the prior owner would have been able to collect. Additionally, I.R.C. § 42(f)(4) allows for allocation between multiple parties if an interest in a building that qualifies for a credit is transferred: each party receives a portion, determined by the number of days of ownership during the tax year, of their share of the credit for the year. Note that when the LIHTC was initially enacted, tradability was significantly restricted because the recapture provisions were triggered by any transfer of ownership unless a bond sufficient to ensure future compliance (though this standard was never defined) was posted with the IRS. MITCHELL-DANFORTH TASK FORCE ON THE LOW-INCOME HOUSING TAX CREDIT, REPORT OF THE MITCHELL-DANFORTH TASK FORCE ON THE LOW-INCOME HOUSING TAX CREDIT 31 (1989).

42. I.R.C. §§ 704(a)-(b); Treas. Reg. § 1.704-1(b)(1)(i).

43. I.R.C. § 469(i)(6) (defining an "active participation" requirement for claiming losses and credits for rental real estate activity carried on through a partnership, whereby no losses or credits may be claimed if the taxpayer holds an interest of less than ten percent of the value; however credits determined under I.R.C. § 42 are specifically exempted).

44. *See* DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, LIHTC BASICS: SYNDICATION, *available at* http://www.hud.gov/offices/cpd/affordablehousing/training/web/lihtc/basics/syndication.cfm.

ernment.[45] Tradability allows investors to purchase rights to the LIHTCs yielded by a development, and the capital the investors provide is used to fund the construction of the housing project. Tradability is also important because many low-income housing developers are not-for-profit organizations that cannot take advantage of federal tax credits.[46]

The LIHTC was first enacted as a last minute addition to the Tax Reform Act of 1986, partially in response to then-recent cuts in direct subsidies for public housing.[47] In 1986, construction of federally funded multi-family units dropped below 20,000 for the first time in the history of the Department of Housing and Urban Development, following steep cuts in Section 8 New Construction funding at the urging of the Republican administration.[48] There is no indication in the congressional debates leading to enactment of the 1986 tax reform act as to why the LIHTC was added to the bill and who was behind it. It is theorized that, in addition to filling the gap in low-income housing, the LIHTC acted as a replacement of sorts for the tax shelters for individuals that had been eliminated by the passive loss provisions.[49]

Initially the credit was modest both in scope and longevity, and the tax benefits were intended flow to individual taxpayers rather than institutional investors. But in 1989, a bipartisan collaboration between Senators Danforth and Mitchell led to the reauthorization, expansion and extension of the LIHTC program.[50] The policymakers behind the LIHTC con-

---

45. *Id.*

46. *See generally* Megan J. Ballard, *Profiting from Poverty: The Competition Between For-Profit and Non-Profit Developers for Low-Income Housing Tax Credits*, 55 HASTINGS L.J. 211, 224 (2003). Indeed, Congress requires that ten percent of LIHTCs be allocated to projects carried out by nonprofit developers. I.R.C. § 42(h)(5)(A) (2009).

47. Doug Guthrie & Michael McQuarrie, *Privatization and the Social Contract: Corporate Welfare and Low-Income Housing in the United States Since 1986*, 14 RES. POL. SOC. 15 (2005), *available at* http://www.hbs.edu/socialenterprise/pdf/LIHTC_politics9.0.pdf.

48. *Id.*

49. *See id. See also* GRAETZ & SCHENK *supra* note 21, at 414-15 (describing efforts in the early- to mid-1980s to eliminate tax shelters created through "passive activities", culminating in the enactment in the Tax Reform Act of 1986 of section 469, discussed *supra* note 43 and accompanying text.).

50. ERNST & YOUNG REAL ESTATE GROUP, THE LOW-INCOME HOUSING TAX CREDIT: THE FIRST DECADE 86 (1997). *See also* MITCHELL-DANFORTH TASK

sidered making it a refundable credit, but concluded that this was not "politically feasible."[51] Even as a tradable credit, the LIHTC was only renewed year by year initially, until it was eventually made permanent in 1993.[52] The creation of the LIHTC is in part historical happenstance (that a once-in-a-generation tax reform effort coincided with steep cuts in direct subsidies for housing and elimination of a popular tax shelter) and part bipartisan compromise (as the political coalition behind the LIHTC galvanized in the late 1980s, it became a popular program).

The market for LIHTCs has changed dramatically since the credit was originally enacted. In the first and second years that the LIHTC existed, the market was dominated by individual investors, with 85.7% and 98.3% of equity for LIHTC projects provided by individuals respectively in 1987 and 1988.[53] In these early years, syndicators aggregated investments from individuals and allocated those investments across partnerships with equity stakes in LIHTC projects; in exchange for this equity, the LIHTCs and other tax benefits flowed through to the individual investors.[54] In the early 1990s, the market shifted from domination by individual investors to institutional investors.[55] By 2006 individuals provided just .03% of the equity for LIHTC projects, and in 2007, individuals accounted for 0% of equity investments.[56] A further

---

FORCE *supra* note 41. In 1988, the senators appointed a task force to assess the LIHTC, which was scheduled to expire at the end of 1989. *Id.* at 1-2. The task force recommended making the LIHTC permanent along with a number of technical adjustments to the operation of the LIHTC. *Id.* at 3-7.

51. Kaye, *supra* note 38, at 885 (the author, Kaye, worked on the staff of Senator John Danforth while the LIHTC was being conceived of, written and enacted, and the Senator credits Kaye with "making the LIHTC work", John Danforth, Faith and Politics (2006)).

52. Christine Serlin, *The LIHTC* at 25, AFFORDABLE HOUSING FINANCE, June 2011, *available at* http://www.housingfinance.com/ahf/articles/2011/june/0611-specialfocus-The-LIHTC-At-25.htm.

53. ERNST & YOUNG, ENTERPRISE COMMUNITY PARTNERS, INC., LOW-INCOME HOUSING TAX CREDIT INVESTMENT SURVEY 5 (2009) [hereinafter ERNST & YOUNG, SURVEY].

54. *Id. See also* Ballard, *supra* note 46, at 218 n.32.

55. *See* ERNST & YOUNG, SURVEY *supra* note 53 at 5.

56. *Id.* Part of this transition is explained because initially there were a number of unappealing requirements for investors, including that transferability was impeded, and the credit was not permanent so there was a risk that resources devoted to investing in LIHTC projects would be useless in future

shift also occurred in more recent years, from a diverse range of institutional investors to a small number of large investors from the financial services industry, most notably Fannie Mae and Freddie Mac.[57] During this time, as the market for LIHTCs became more sophisticated, credits commanded higher prices (meaning the amount of equity provided to LIHTC projects for a given allocation of tax credits increased) and yields fell for investors, though demand stayed strong.[58]

2. *The New Markets Tax Credit*

The NMTC is an incentive to spur investments in low-income communities and investments to benefit low-income people.[59] The NMTC was the result of a bipartisan compromise in Congress between pro-business, anti-tax factions and pro-community development, anti-poverty factions.[60] It was modeled on the by-then very successful LIHTC.[61] The Treasury Department, which manages the NMTC, certifies and then allocates tax credits to Community Development Entities (CDEs) that meet statutory requirements qualifying them as well-situated to make effective investments in low-income communities.[62] Low-income communities are areas with census tracts where the poverty rate is in excess of 20% or the median income is less than or equal to 80% of the statewide or metropolitan area median income. CDEs that make investments in

---

years. *Id.*, *see generally* MITCHELL-DANFORTH TASK FORCE, *supra* note 41, at 8 (urging congress to minimize "perceived risks" of nascent LIHTC investments).

57. *Id.* at 9.

58. *See id.* at 5-6. *See also* Desai et al. *supra* note 28, at 24 (citing ERNST & YOUNG, SURVEY *supra* note 53). The ability of institutional investors to find economies of scale as compared to syndicators drove up the price of the tax credits, eventually making syndication to individuals impractical. ERNST & YOUNG, SURVEY *supra* note 53, at 5.

59. Ted M. Handel, *The New Markets Tax Credit Program: New Tax Credits Will Level the Playing Field for Investments in Low-Income Areas,* Los Angeles Lawyer, Jan. 2003, at 13-14. *See* I.R.C. § 45D (West 2010).

60. RAPOZA ASSOCS. FOR THE NEW MKTS. TAX CREDIT COAL., THE NEW MARKETS TAX CREDIT: 10TH ANNIVERSARY REPORT 3 (2010) [HEREINAFTER NEW MKTS. TAX CREDIT COAL.].

61. *Id.*

62. CDEs must have a primary mission of promoting community development, and must be locally accountable as indicated by representation on the governing board or on an advisory committee. *See* I.R.C. § 45D(c)(1); Handel, *supra* note 59, at 14.

such areas can then receive a 39% credit for these investments over seven years.[63] Nearly $30 billion of credits have been provided for CDE investments since the program was enacted in 2000.[64]

Tradability is a key aspect of NMTCs. Investors may benefit from NMTCs either by investing directly in CDEs, or by investing in funds that purchase NMTCs from CDEs.[65] The credits are distributed to investors in the CDEs, who, similar to LIHTC investors, provide capital for projects and ventures financed by the CDEs. These investments are typically made in real estate projects or in existing or start-up businesses operating in low-income communities.[66] The credit makes the investments more profitable and less risky. NMTCs are subject to recapture for the seven year period after the initial investment is made if the CDE loses certification, fails to use the investment, redeems the investment (for example, sells qualifying stock), or if the IRS finds that the purpose of the transaction is inconsistent with the NMTC program, so investors have a strong interest in ensuring the CDE complies with IRS requirements.[67]

The NMTC requires a shorter compliance period, the time during which the qualifying conditions must be maintained or otherwise a recapture provision is triggered, than the LIHTC (seven years for NMTC versus 15 for LIHTC). Further, there is less risk of failure to qualify for tax credits, because receiving the credits does not depend on, for example, people actually moving into the housing units as is the case with the LIHTC.[68] In addition, the NMTC allows allocation of credits to funds that invested money borrowed against (limited) investor contributions and expected future revenue streams from the

63. Handel, *supra* note 59. The NMTC allows a 5% credit in years one through three, and a 6% credit in years four through seven. I.R.C. §§ 45D(a)(2)-(3).

64. *New Markets Tax Credit Program*, U.S. Dep't of Treasury Community Dev. Fin. Inst. Fund, *available at* http://www.cdfifund.gov/what_we_do/programs_id.asp?programid=5. *See also* New Mkts. Tax Credit Coal., *supra* note 60, at 6.

65. Handel, *supra* note 59, at 18.

66. New Markets Tax Credit Coal., *supra* note 60, at 5.

67. Treas. Reg. § 1.45D-1(e) (2005); Handel, *supra* note 59, at 19.

68. Handel, *supra* note 59, at 21.

tax credits, which helps further increase potential yields for investors.[69]

The NMTC was developed by the Democratic Clinton administration working with Republican Speaker of the U.S. House of Representatives Dennis Hastert.[70] It was ultimately enacted in 2000, and subsequently was launched and extended by the Republican George W. Bush administration.[71] The bipartisan support the program has garnered is believed to be due in part to the tax credit structure, which avoids federal grants and instead relies on "private sector investment."[72]

3. *Safe Harbor Leasing*

In 1981, Congress enacted various tax incentives intended to spur capital investment[73] and added provisions to make these tax benefits transferable between corporations.[74] Transferability was seen as an alternative to refundability.[75] It was

---

69. *Id.* at 20 ("Leveraging can also make NMTCs more attractive to investors. In a simple, straightforward NMTC transaction, an investor only receives tax credits based on the amount of cash that it pays for its investment in a CDE. By contrast, as an example of a leveraged transaction, an investment partnership could be formed in which the investor puts its money into the partnership and a bank makes a loan to the partnership and not the CDE. The investment partnership would invest the total proceeds received from the investor and the bank into a CDE. The investor would then receive NMTCs based on the total amount of the partnership's investment and not just its own funds. In this case, the rate of return to an investor could rise dramatically."). *See also* Rev. Rul. 2003-20, 2003-1 C.B. 465; Novogradac, *supra* note 29, at 450-51.

70. NEW MKTS. TAX CREDIT COAL., *supra* note 60, at 3.

71. *Id.* at 3-4.

72. *Id.* at 3.

73. The tax incentives included the Investment Tax Credit, which allowed for a credit equal to a percentage of the cost of depreciable personal property purchased or constructed in the tax year, creating an incentive to businesses to invest. *See generally* Graetz & Schenk, *supra* note 21, at 346. Another of the tax incentives was a new system of accelerated depreciation deductions, which allowed for depreciation deductions over a period of time significantly shorter than the range of "useful lives" under the system prior to 1981. *Id.* at 339-40.

74. *See* DANIEL N. SHAVIRO, TAXES, SPENDING, AND THE U.S. GOVERNMENT'S MARCH TOWARD BANKRUPTCY 17-18 (2007); Alvin C. Warren, Jr. & Alan J. Auerbach, *Transferability of Tax Incentives and the Fiction of Safe Harbor Leasing*, 95 HARV. L. REV. 1752 (1982).

75. Warren & Auerbach, *supra* note 74, at 1772 ("Refundability of the relevant tax incentives is generally assumed to be the principal alternative to

thought that transferability would increase the economic stimulus effect of the tax incentives by allowing corporations that lacked sufficient tax liability, for example startup companies or companies with losses, to nonetheless benefit from the tax incentives.[76] However, unlike the LIHTC and NMTC described above, Congress did not provide for direct transferability of the tax incentives. Rather, the provisions created a "safe harbor" whereby a company that owned depreciable property could undertake a complex paper transaction to "sell" the tax attributes of the property to a company that desired them in a faux sale/leaseback arrangement.[77] Before the safe harbor provisions were enacted, companies entering into such a sale/leaseback transaction would have to effect an actual transfer of property under governing state law and would need to show economic substance of the transaction in order to gain the federal tax benefits of the transaction.[78] The safe harbor leasing provisions dispensed with these requirements, creating a category of "federal tax ownership" independent from actual ownership under state law and requiring no actual economic substance otherwise.[79] Thus, certain tax attributes became freely transferable through sale/leaseback arrangements.[80]

There was a swift political backlash, with public objections to the corporations buying and selling millions of dollars of

---

leasing, but it is also possible to design an explicit program of transferability that does not involve the fiction of leasing.").

76. Warren & Auerbach note that the legislative history is not determinative as to whether Congress viewed the ITC and ACRS as a subsidy to recipient corporations or as a structural component of the tax code intended to reduce rates. *Id.* at 1757-58. However there is no justification for transferability of these tax benefits (which creates, for some taxpayers, negative tax rates) unless the provisions are seen as subsidies. *Id.*

77. SHAVIRO, *supra* note 74, at 18.

78. Warren & Auerbach, *supra* note 74, at 1762-63.

79. *Id.*

80. The mechanics of even the most basic safe harbor leasing transaction are somewhat confusing, but are described well by Warren & Auerbach: "[T]he lessor's cash payment to the lessee for tax benefits is characterized as a down payment on the purchase price. The remainder of the purchase prices is financed by a 'loan' from the lessee to the lessor. The lessor repays this loan over the term of the lease with principal and interest payments that equal the rental payments from the lessee to the lessor; thus, the down payment is the only cash to change hands. . . A lessor will be willing to make a down payment equal to the present value of tax reductions resulting from ACRS deductions and the ITC." *Id.* at 1763-64.

deductions and credits.[81] Congress enacted these provisions knowing how they would be used, and the Reagan administration initially defended them indicating that the alternative was tax motivated (but inefficient) mergers and acquisitions.[82] The legislative history indicates that the leasing mechanism was adopted out of a desire to ensure an ongoing relationship between the parties, which would simplify recapture of tax benefits if necessary.[83] Policymakers' avoidance of an explicit transferability regime, however, helped ratchet up pressure on Congress by creating the appearance of abuse.[84] Congress promptly repealed the provisions in 1982, just a year after they were first enacted.[85]

4. *Other Tradable Tax Credits*

Tradable tax credits have been proposed, and in some cases enacted, in a wide variety of contexts. Some proposals have been made recently to add tradability to existing tax benefits such as cost recovery deductions[86] and the energy tax credit.[87] Other proposals have been to create entirely new tradable tax benefits, such as President Bush's proposal for a

81. SHAVIRO, *supra* note 74, at 18.

82. *Id.*; Henry V. Barry, Note, *Safe Harbor Leases: The Costs of Tax Benefit Transfers*, 34 STAN. L. R. 1309, 1311 n.12 (1982) (describing a speech by a Reagan administration official expressing concern about mergers and acquisitions motivated by a desire to acquire tax credits).

83. Joint Comm. on Taxation, Safe Harbor Leasing Provisions Under ACRS, Daily Tax Rep. (BNA) No. 205, Oct 23, 1981, at J-8. Recapture might be necessary if a taxpayer holding depreciable property took depreciation deductions against ordinary income, but then sold the depreciable property for a gain. Although absent the depreciation deductions the gain would be capital, section 1245 has rules allowing for recapture of the depreciated portion of the gain as ordinary income. If the depreciation deductions were freely transferable with no ongoing relationship between the entity holding the property and the entity taking depreciation deductions, such recapture might be administratively difficult to achieve.

84. SHAVIRO, *supra* note 74, at 18.

85. *Id.*

86. Ronald W. Blasi, *A Proposal for an Elective Tax Benefits Transfer System*, 10 FL. TAX R. 267, 294 (2010) (seeking to establish neutrality as between owners and lessees of business property).

87. *The Role of Tax Incentives in Addressing Rural Energy Needs and Conservation: Hearing Before the S. Comm. on Fin.*, 107th Cong. 10 (2001) (statement of Terry Holzer, General Manager, Yellowstone Valley Electric Co-op); Mark Shahinian, *The Tax Man Cometh Not: How the Non-Transferability of Tax Credits Harms Indian Tribes*, 32 AM. INDIAN L. REV. 267 (2007).

tax credit for health care for individuals that could be transferred to an insurer[88] and for a homeowner's tax credit to incentivize construction of affordable non-rental housing.[89] At the state level, there are numerous existing and proposed tradable tax credits.[90] Nonetheless, scant analytical attention has been focused on tradable tax credits to date.

III.
THE CASE FOR TRADABLE TAX CREDITS

A. *Tradable Tax Credits Are Economically Equivalent to Refundable Tax Credits*

This section argues that tradable tax credits offer advantages as compared to other policy mechanisms, and that policymakers should consider the tradable tax credit form as a potentially desirable form of tax incentive, rather than only as a necessity of political compromise as was the case with the LIHTC and NMTC. The benefits of the tradable tax credit are most apparent when compared to the refundable tax credit. The efficiency of tradable tax credits matches, and in some instances may surpass, that of refundable tax credits. Further, tradable tax credits offer political advantages that are not possible with refundable tax credits, while matching refundable tax credits on equity grounds.

The key starting point for this argument, a point which has largely been disregarded by academics and policymakers, is that tradable tax credits can be the economic equivalent of both direct subsidies and refundable tax credits.[91] With direct

88. Leonard Burman & Jonathan Gruber, *Tax Credits for Health Insurance*, TAX POLICY ISSUES AND OPTIONS (Urban-Brookings Tax Policy Center), no. 11, June 2005, at 2 n.2, *available at* http://www.urban.org/uploadedpdf/311189_IssuesOptions_11.pdf (describing the Bush administration proposal for limited transferability and noting, without further explanation, that "[i]n practice, such a mechanism is likely to be very difficult to implement effectively.").

89. Desai et al., *supra* note 28, at 1-2.

90. *See, e.g.*, *A Guide to Pennsylvania State Transferable Tax Credits*, *supra* note 29, at 8-9 (describing four tradable state tax credits available in Pennsylvania); Rothstein & Wineinger, *supra* note 29, at 53 (describing six tradable tax credits available in Missouri, and other tax credits that may be made tradable).

91. Batchelder acknowledges in a footnote that "tradable tax credits and tradable deductions can be economically equivalent to refundable tax cred-

spending the government attempts to achieve a social or economic objective through expenditures enacted and implemented outside the I.R.C.[92] In a refundable tax credit regime, a taxpayer who files a tax return receives a set credit amount in exchange for meeting a condition defined in the tax code.[93] If the taxpayer has no tax liability, the government provides a refund to the taxpayer; if the taxpayer does have tax liability, the credit amount offsets that liability dollar for dollar.

In a tradable tax credit regime, the taxpayer may offset tax liability dollar for dollar and may sell any credit amount that exceeds his tax liability to a third party. The third party can then use the credit amount to offset her own liability. Therefore, the benefit to the taxpayer in a tradable tax credit regime can be the same as in a refundable regime – the full nominal value of the credit – but the source of any cash payments is different. The two are economically equivalent, as is described in greater detail below.

The possible variations in structure of a government incentive and the economic equivalence of tradable tax credits and refundable tax credits are made apparent through an example. Consider the following scenario. Congress determines that energy efficiency should take on increased importance to building owners because it can create significant benefits for society in the form of reduced energy costs and reduced pollution from energy production. Following hearings on the sub-

---

its, but they have generally been avoided by Congress since the repeal of safe harbor leasing". Batchelder et al., *supra* note 12, at 34 n. 36 (citing Shaviro, *supra* note 74, at 18). But very limited attention has been given to this point otherwise. Shaviro describes safe harbor leasing as a violation of "the folk definition of taxes as payments *to* the government rather than *from* the government." Shaviro, *supra* note 74, at 18. Shaviro concludes the "[p]rovisions that are labeled 'tax benefits' are not supposed to be tradable, any more than they are supposed to be directly refundable by the government beyond the amount of taxes otherwise due from the same taxpayer at the same time under the same set of tax rules." *Id.*

92. For example, if the government wanted more low-income housing, it would appropriate money to build such housing. Or if the government wanted greater investment in an emerging technology, for example solar panels, the government would appropriate funds to research and development of solar panels.

93. Thus, in contrast with direct spending, the social or economic policy objective is achieved by taxpayer spending that is subsidized by the government through the I.R.C.

ject, Congress determines that the best way to go about achieving uniform energy efficiency improvements is to encourage building owners to adhere to an existing environmental standard. Congress learns that "Leadership in Energy and Environmental Design" (LEED) certification is a widely recognized green building certification program.[94] Green retrofitting of some buildings to meet LEED Certification standards will make the buildings more energy efficient and environmentally friendly, providing a net benefit to society in reduced energy costs and reduced harmful emissions from power plants. Congress further determines, however, that the investment required to reap these benefits costs almost twice as much as any building owner can gain in future savings on energy bills.[95] Thus a building owner will recoup savings in lower energy costs such that it is worthwhile for the building owner to spend only 50% of the cost of the retrofitting work. This is a market inefficiency: although a positive externality exists to the retrofitting work, it has not been capitalized in the price building owners have to pay to retrofit a building. The marginal value of the retrofitting work is higher than the price of that work, so there is no incentive for any individual building owner to act, even though society as a whole would be better off if he did.

To remedy the inefficiency, the government may intervene.[96] This analysis will consider three ways that the govern-

94. *See generally* UNITED STATES GREEN BUILDING COUNCIL (USGBC), http://www.usgbc.org/DisplayPage.aspx?CategoryID=19 (last visited Oct. 20, 2011) (providing information regarding LEED certification tools and programs).

95. The cost multiplier assumed here–that retrofitting costs twice as much as the savings to a building owner over time–is hypothetical.

96. Although the interventions described here are hypothetical–and for purposes of this paper it is assumed that no other government incentives are applicable to the scenario described–various government units have in fact incentivized LEED certification or similar building standards. For example, New York State had a Green Building Tax Credit, a semi-transferable credit for buildings that meet certain environmental requirements. *See Public Policy Search*, U.S. Green Building Council, http://www.usgbc.org/PublicPolicy/SearchPublicPolicies.aspx?PageID=1776 (accessed by searching for "tax credits" under "Incentive") (last visited Oct. 21, 2011). The credit can be claimed by building owners and unclaimed portions may be carried forward to future owners or tenants. *Id.* Other government units have enacted various incentives for LEED certification as well, primarily in the form of requiring that the governments themselves build or use LEED certified buildings.

ment might conduct such intervention: it could provide direct subsidies, refundable tax credits, or tradable tax credits. Each of these policy options is examined by considering the following three entities in a simplified economy: (1) a building owner; (2) the federal government; and (3) a construction company. Assume that the building owner has no tax liability[97] ($x_{tb} = 0$, subscript b indicating the building owner), the construction company has significant tax liability ($x_{tc} > 0$, subscript c indicating the construction company) and the government collects tax revenue of the sum of all tax liability, which in this simplified economy means the taxes paid by the construction company ($\Sigma x_t > 0$).

5. *Direct Subsidy Example*

First, consider how the government might incentivize LEED certification using a direct subsidy. The building owner – that is, the party that the government wants to incentivize to undertake a retrofitting project – will require a subsidy of 50% of the required investment because the retrofitting costs twice as much as the direct benefit the building owner will receive. If the government provides 50% of the investment cost (I), then the building owner will willingly invest the other 50%. The result is that the building owner will have invested half of the cost of green retrofitting, and the government will invest the other half. The government's net revenue under this regime will be the sum of all tax revenues ($\Sigma = x_t$) less the 50% subsidy. The construction company is not involved in the direct

Public Policies Adopting or Referencing LEED, U.S. Green Building Council, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852 (last visited Oct. 21, 2011).

97. The tradable mechanism is most obviously useful where one party lacks sufficient tax liability to take advantage of the tax credit directly. The building owner in this example might, alternatively, (a) have ample tax liability in which case the tax credit need not be refundable or tradable in order for the building owner to take full advantage of it; or (b) have tax liability that only allows partial use of a credit that is neither refundable nor tradable. The assumption of zero tax liability avoids discussion of these contingencies, though the analysis in this section applies nonetheless to the latter scenario. Also note that in the LIHTC context, some developers are tax-exempt entities, meaning that a tax credit has no value. The tradable structure of LIHTCs nonetheless creates an incentive for tax-exempt developers to build low-income housing because those developers can effectively sell the tax credits.

subsidy regime, except that the construction company provides tax revenue to the government. The direct subsidy scenario is represented in Table 1.

TABLE 1: DIRECT SUBSIDY

A.A.1.1.1	Building Owner	Government	Construction Company
Investment	<(.5)I>	<(.5)I>	-
Accounts Receivable	-	Σx_t	-
Accounts Payable to Gov't	$x_{tb} = 0$	-	$<x_{tc}>$
Accounts Payable to Other	-	-	-
Total	<(.5)I>	Σx_t - (.5)I	$<x_{tc}>$

KEY: r = rate of tax credit = .5I = investment in project
x_t = tax liabilityx_{tc} = construction company tax liabilityx_{tb} = building owner tax liability
< > indicates negative values

The assumption that the building owner has zero tax liability[98] has no effect on the take-up rate of the government incentive: the building owner will make the decision whether or not to pursue the government subsidy irrespective of tax liability.[99]

6. *Refundable Tax Credit Example*

In a refundable credit regime, the outcome is the same as with a direct subsidy but the means of achieving it are different. The government provides a tax credit at a rate (r) sufficient to induce the building owner to make the entire investment (I). The rate in this case is 50%, equal to the amount of the direct subsidy described above. The building owner makes an investment and receives from the government a tax refund in the amount of 50% of that investment, leaving a net expenditure by the building owner of 50% of the total investment cost. The government has outlays of 50% of the investment cost, so maintains the same net revenue equal to the sum of all tax liabilities less the credit rate (.5) times the investment (Σx_t - .5(I)). Again, as in the direct expenditure example, the con-

98. *See* discussion *supra* note 97.

99. Note again that taxpayers must have tax liability in order to take advantage of nonrefundable tax credits, deductions and exemptions.

struction company plays no role in the tax incentive. The refundable tax credit scenario is represented in Table 2.

TABLE 2: REFUNDABLE TAX CREDIT

	Building Owner	Government	Construction Company
Initial Investment	<I>	-	-
Accounts Receivable	rI	Σx_t	-
Accounts Payable - Gov't	$x_{tb} = 0$	-	$<x_{tc}>$
Accounts Payable - Party	-	<rI>	
Total	(r-1)I = <(.5)I>	Σx_t - rI = Σx_t - (.5)I	$<x_{tc}>$

KEY: r = rate of tax credit = .5I = investment in project
x_t = tax liabilityx_{tc} = construction company tax liabilityx_{tb} = building owner tax liability
< > indicates negative values

Because that rate is 50% (r = .5), the only differences between the direct expenditure represented in Table 1 and the refundable credit represented in Table 2 is what the payment is called and how the government administers the program: a refundable credit is administered within the tax system, whereas a direct subsidy is administered by some other department or agency.[100] There is no economic difference for either the government or the building owner.

7. *Tradable Tax Credit Example*

In contrast to the direct subsidy and refundable credit, the tradable credit mechanism does not utilize any direct payments from the government to the parties the government wishes to incentivize. Instead of receiving a direct payment, the building owner with no tax liability in a tradable credit regime can sell the right to the tax benefit to a third party (in this scenario, the construction company) that does have tax liability. The government then collects taxes from the construction company that are the sum of its regular tax liability

100. There is a potential difference in the timing of the transfer of money from the government to the building owner. This analysis assumes that there is no surplus to be gained based on the time value of money: if the subsidy is provided up front, then the government borrows money against future tax revenues; if the subsidy is provided after the building owner makes the investment, then the building owner borrows money against the future receipt of tax incentives.

reduced by product of the investment made by the building owner and the credit rate. The building owner will receive directly from the construction company an amount equal to the credit rate multiplied by the building owner's investment (rI). Thus, the building owner receives the same incentive to make the investment as in the direct subsidy or refundable credit regime, the government has the same net revenue, and the construction company makes a payment to the building owner in exchange for reduced tax liability. The tradable tax credit scenario is represented in Table 3.

TABLE 3: TRADABLE TAX CREDIT

	Building Owner	**Government**	**Construction Company**
Initial Investment	<I>	-	-
Accounts Receivable	rI	Σx_t - rI	-
Accounts Payable - Gov't	$\Sigma x_{tb} = 0$	-	$<x_{tc}>$ - rI
Accounts Payable - Party	-	-	<rI>
Total	(r-1)I = <(.5)I>	Σx_t - rI = Σx_t - (.5)I	$<x_{tc}>$
KEY: r = rate of tax credit = .5 I = investment in project x_t = tax liabilityx_{tc} = construction company tax liabilityx_{tb} = building owner tax liability < > indicates negative values			

The result is that, transaction costs aside, the tradable tax credit is the economic equivalent of a refundable tax credit or a direct subsidy. With each of the three, the building owner pays half of the investment costs, the government has revenues of total taxes collected minus half of the investment costs, and the construction company pays, either to the government or to the building owner, an amount equaling its total tax liability. The remainder of this section will show that in a limited but significant set of circumstances the tradable tax credit can offer efficiency, political and equity benefits as compared to refundable tax credits or direct subsidies. Tradable tax credits are assessed here in terms of efficiency, political considerations and fairness.

B. *Efficiency Advantages of Tradable Tax Credits*

Perhaps the most frequently referenced criterion for assessing tax policy is the efficiency of provisions of the tax code.

This section will consider two distinct strands of efficiency.[101] First is an analysis of the effect of a tax provision on the overall allocation of societal resources, which is referred to here as "universal efficiency."[102] Second is the extent to which transaction costs are minimized so that government resources achieve the intended end, which is referred to as "technical efficiency."[103] Universal efficiency and technical efficiency each have numerous facets, discussed below. This section argues that tradable tax credits can surpass the universal efficiency benefits of refundable credits, and that tradable tax credits can match refundable tax credits in technical efficiency. The conclusion is that in certain circumstances, described below, tradable tax credits are the most efficient form of tax credit.

1. *Analysis of the Universal Efficiency of Tradable Tax Credits*

The concept of universal efficiency is grounded in the view that allocation of resources in society is optimized by competitive markets operating without government intervention, and allows that where there are market failures, government intervention may increase universal efficiency.[104] Where dead-

101. The typology that follows is adapted from Zelinsky, *supra* note 16 at 980-81. Zelinsky distinguishes three types of efficiency to consider in analyzing tax expenditures as compared to direct expenditures or compared to no government interference: "universal market efficiency," "technical efficiency," and "sectoral efficiency." The first two are discussed in detail here, though this discussion has somewhat broadened Zelinsky's understanding of the implications of universal market efficiency (and calls it, simply, universal efficiency); Zelinsky's sectoral efficiency is not dealt with here, and is inapplicable to this discussion. As Zelinsky notes, "the sectoral case against tax incentives is not an argument for direct expenditure programs, but rather embodies substantive rejection of government intervention in the domestic economy." *Id.* at 987. As discussed at the outset, an underlying assumption in this analysis is that intervention takes place because positive externalities have been identified; the question is how government can structure an incentive to best address the positive externality.

102. *Id.* at 980-81 (describing "universal market efficiency" as a term used by tax policy commentators who support of proposition that perfectly competitive markets lead to an optimal allocation of society's resources).

103. *Id.* at 992-95.

104. *See id.* at 980-81. Note that Zelinsky discusses market efficiency as a threshold consideration: government intervention in the economy either increases or decreases deadweight loss, and accordingly may or may not be appropriate. He then proceeds to analyze the technical efficiency of tax incentives as compared to direct expenditures. *See also* JONATHAN GRUBER, PUBLIC FINANCE AND PUBLIC POLICY 589 (3rd ed. 2011) (describing that "social

weight loss is minimized, universal efficiency is maximized.[105] For these purposes, universal efficiency encompasses the concept of Pareto efficiency: where an alternative distribution of societal resources increases welfare without making anyone in society worse off, there is said to be a Pareto improvement.[106] Universal efficiency is not measured as a standalone, but rather is used here as a metric to make relative comparisons between policy options.

Although universal efficiency is used normatively to critique tax expenditures because tax expenditures distort markets,[107] this paper assumes that policymakers can identify market failures and market inefficiencies, and further assumes that policymakers can identify activities that create positive externalities but that will not occur without government intervention.[108] Such government interventions create Pareto improvements, increasing overall social welfare.[109] However, determining what interventions give rise to universal efficiency gains is only half the challenge: once it is determined that intervention is appropriate, there still may be second order effects on universal efficiency. Even as an intervention addresses one market failure, it may create distortions and deadweight loss that decrease universal efficiency. Different types of intervention may cause different amounts of collateral distortions. Some interventions may have additional ancillary externalities that increase or decrease social welfare and affect whether an

---

efficiency is maximized at competitive equilibrium without government intervention").

105. *See supra* note 20 (defining deadweight loss).

106. Pareto efficiency exists when resources are allocated such that no person can be made better off without someone being made worse off. *See generally* SAMUELSON & NORDHAUS, *supra* note 2, at 185. *See also supra* note 30.

107. Note, though, that Zelinsky disputes this point, arguing that where there are positive externalities tax incentives may be efficient. *See* Zelinsky, *supra* note 16, at 977.

108. *See supra* Part II.A. *Cf.* Batchelder et al., *supra* note 12, at 26 (limiting their focus, in the same manner as here, to tax incentives that are "intended to encourage behavior generating positive externalities").

109. Note that the Pareto improvement described here is within a market where there is a positive externality being realized due to government intervention. However, the tax that is funding the intervention may mean that the net effect of the intervention is not a Pareto improvement because the tax may make some part of society worse off than the intervention makes another part better off. Broader consideration of Pareto efficiency implications of government intervention is beyond the scope of this analysis.

allocation of resources is Pareto efficient. The tradable tax credit, by way of its structure, can create two types of positive externalities that increase universal efficiency: (a) conferring a benefit on third parties involved in tradable tax credit transactions,[110] which is a Pareto improvement derived from the tradable tax credit structure; and (b) smoothing[111] of income shocks and macroeconomic fluctuations.[112]

a. Benefit ($ß_c$) of Tradable Tax Credits to Third Parties

In some instances, there may be additional benefits associated with tradable tax credits that are not available with refundable tax credits or direct subsidies. In the LEED certification example, the construction company will only participate if it can benefit from the exchange in some way. There are two related ways for the construction company to benefit: first, it may derive some additional advantage from participation in the transaction. For example, facilitating a LEED certification project may provide a benefit to the construction company in that the construction company can make use of environmental credentials. This benefit, perhaps by receipt of goodwill or by facilitation of a successful marketing campaign, is the positive externality ($ß_c$) of the transfer of the tradable tax credit. At the same time, there is no cost to the building owner ($ß_b = 0$) of conferring this benefit on the construction company.[113] As such, the benefit constitutes a welfare gain to society that is created by the tradable structure of the tax credit. The prospect of this benefit means that the construction company may be willing to pay a premium on the credit amount in order to receive the benefit.[114]

110. *See infra* Part III.B.1.i (describing ß).

111. Batchelder states: "all else equal, the value of a tax incentive generally should not vary by the size of one's lifetime earnings, whether one earns more earlier or later in the life cycle, or whether one's earnings are more smooth or more volatile over time." Batchelder et al., *supra* note 12, at 55. Smoothing refers to policies that effectively counteract abrupt economic changes.

112. *See infra* Part III.B.1.ii.

113. This is an example of a benefit conferred on the taxpaying entity (the construction company) but not at the expense of the acting entity (the building owner).

114. Desai also notes that prices of LIHTCs may exceed the actuarial fair values, "reflect[ing] the fact investors may derive additional benefits from the credits since low-income housing projects can be used to meet [Commu-

The second possible incentive for the construction company to participate in the tradable tax credit transaction is the payment premium related to $ß_c$. The construction company will pay the building owner some amount of money that is less than the actuarial fair value of the tax credit plus the benefits to the construction company associated with the tax credit.[115] The difference between the amount the construction company pays and the amount of the credit against tax liability is profit to the construction company. There may be a premium or penalty (expressed as ∂, which may be negative or positive) included in the amount that the construction company pays for the tax credit, meaning that the construction company may either pay more or less than the actuarial fair value of the tax credit.[116] The additional benefit and possible penalty associated with the tradable tax credit structure are represented in Table 4.

---

nity Reinvestment Act] requirements." Desai et al., *supra* note 28, at 25. The Community Reinvestment Act requires banks to make statutorily specified investments in communities where they accept deposits but that have been under-served by the financial industry historically. ERNST & YOUNG, SURVEY *supra* note 53, at 5 n.3.

115. *See* Desai et al., *supra* note 28, at 15-16, which discusses the market treatment of LITHCs, observing "if the market prices the credits fairly and the buyers have sufficient tax liability" then the price of the credits will equal the credit amount. However, "there may be deviations of the price of the credits from their actuarial fair value." *Id.* at 24. This is due to a number of factors, including the discounting of the nominal value of credits received because the benefit will be received over time, additional compensation required by taxpaying entities to incorporate the risk of default or project failure, and supply and demand shocks related to broader economic factors.

116. Basic economic principles instruct that a market price will be set based on supply and demand so that the building owner and the construction company will both benefit from the exchange of the credit. The market price for LIHTCs reached as high as $0.95 per $1 of tax credits. ERNST & YOUNG, SURVEY, *supra* note 53, at 10. In contrast, the market for NMTCs peaked at $0.75 to $0.80 per dollar, and when demand was low (as was the case during the economic downturn in 2008-2009), the price fell below $0.50 per dollar. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-334, NEW MARKETS TAX CREDIT: THE CREDIT HELPS FUND A VARIETY OF PROJECTS IN LOW-INCOME COMMUNITIES, BUT COULD BE SIMPLIFIED 29 (2010) [hereinafter GAO, NMTC].

TABLE 4: ADDED BENEFIT AND POSSIBLE PENALTY OF TRADABLE TAX CREDITS

	Building Owner	Government	Construction Company
Initial Investment	<I>	-	-
Accounts Receivable	rI +/- ∂	Σx_t - rI	-
Accounts Payable - Gov't	$\Sigma x_{tb} = 0$	-	$<x_{te}>$ - rI
Accounts Payable - Party	-	-	<rI +/- ∂>
Total	(r-1)I +/- ∂	Σx_t - rI	$<x_{te}>$ +/- ∂ + $ß_c$

KEY: r = rate of tax creditI = investment in project
x_t = tax liabilityx_{te} = construction company tax liabilityx_{tb} = building owner tax liability
∂ = premium or penalty building owner receives based on value of tax credit to construction company
$ß_c$ = benefit to the construction company for association with project
< > indicates negative values

If $ß_c$ makes the tax credit worth more to the construction company than its actuarial fair value, then ∂ is a premium. In that instance, the construction company pays more, meaning that for the building owner the amount received with a tradable credit (rI + ∂), is greater than the amount received with a refundable credit (rI). On the other hand if $ß_c$ is insignificant or nonexistent, then ∂ is a penalty that accounts for any costs that must be paid to make it worth the construction company's while to participate in the transaction. In that instance, the construction company pays less, meaning that for the building owner the amount received with a tradable credit (rI - ∂) is less than the amount received with a refundable credit (rI). Whether or not there is a premium or penalty in the price the construction company pays depends on whether or not the construction company gains other benefits ($ß_c$) from the transaction.

Now consider a refundable credit and a tradable credit head-to-head (represented in Table 5). Assume that the investment required for retrofitting is $100, and that the tax credit is worth 50% of the investment, or $50. Assume also that the government has total tax collections (absent any credits) of $1,000, and that the construction company has tax liability (again, disregarding any tax credit) of $100. With a refundable credit, the government will make a payment of $50 to the building owner. The building owner will thus spend $100, re-

ceive a credit of $50 from the government, and the government will have net revenues of $950.

With a tradable credit, the building owner will spend $100 and will receive $50 from the construction company. The construction company will have its $100 of tax liability reduced by $50, and will receive the additional benefit of goodwill from publicity for sponsoring the green retrofitting project (β_c). This example assumes no penalty or premium on the credits ($\partial = 0$): the benefit the construction company receives is enough to induce the transfer of the tax credit at the nominal value of the credit, but not enough to warrant payment of any more than the nominal amount. The government will receive tax revenues of $950. In short, tradable tax credits and refundable tax credits leave the parties in the same economic position, but the construction company receives an additional benefit in the tradable credit system. The comparison between refundable tax credits and tradable tax credits for the LEED certification scenario is represented in Table 5.

TABLE 5: REFUNDABLE CREDIT (RC) VS. TRADABLE CREDIT (TC)

	Building Owner		Government		Construction Company	
Type of Credit	*RC*	*TC*	*RC*	*TC*	*RC*	*TC*
Initial Investment	<$100>	<$100>	-	-	-	-
Accts Receivable	.5 * $100	.5 * 100	$1000	$1000 - $50	-	-
Accts Payable - Gov't	0	0	<$50>	-	<$100>	$100 - $50
Accts Payable - Party	-	-	-	-	-	$50 - β_c
Total	<$50>	<$50>	$950	$950	<$100>	<$100> + β_c

KEY: β_c = benefit of goodwill and/or marketing opportunities to the construction company for association with project

In the LEED certification example, β_c is a positive externality created by the existence of the tax incentive, but is not realized by the construction company absent the tradable tax credit mechanism. This positive externality, above and beyond the positive externality that prompts policymakers to implement the tax incentive, is created solely because of the tradable mechanism by which the incentive is delivered. If the government provides the incentive directly, as is the case with a refundable tax credit, no such benefit is created. Thus tradable tax credits applied in certain circumstances offer the prospect of additional welfare gains and β_c is a Pareto improve-

ment created by the tradable tax credit. This welfare gain distinguishes tradable tax credits from refundable tax credits or direct subsidies. The tradable tax credit, by creating a benefit to the construction company at no cost to society, provides an efficiency advantage as compared to the refundable credit or the direct subsidy.

b. Smoothing Income Shocks and Macroeconomic Fluctuations

Tradable tax credits, like refundable tax credits, can provide smoothing effects across income shocks and macroeconomic fluctuations.[117] Income shocks are abrupt changes in income. For example, many firms suffered severe reductions in income during the 2008 recession. However, if such firms were profitable and earned income before and after the recession, the reduced income was an aberration – a "shock" rather than a permanent adjustment. Tradable tax credits can counteract such shocks because they are not necessarily impacted when income and tax liability is significant in one year, but negligible the next year. For example, in the LEED certification scenario the construction company that purchases tradable tax credits has little risk of loss due to income shocks because if it suffered such shocks it could sell its tradable tax credits to another entity that has enough tax liability to take full advantage of the credits. Further, the possibility of selling tradable tax credits offers a reliable source of revenue to counteract income shocks directly. Tradability therefore would reduce the severity of an income shock for the construction company.[118]

---

117. *Cf.* Batchelder et al., *supra* note 12, at 57-65 (discussing the smoothing effects of refundable tax credits on household income shocks and macroeconomic fluctuations; the analysis applies similarly to firm income shocks).

118. As is discussed *infra* notes 122 and 124, there may be problems with depending on a market-based mechanism to counteract market forces. This is most obviously true with regard to counteracting macroeconomic fluctuations, described below, but also may apply to income shocks. To the extent that income shocks afflict firms for isolated reasons, the existence of a thick market for tradable tax credits should maintain a smoothing effect because there will be other parties (for example, other construction companies) to step in and purchase tradable tax credits. However, widespread reduction in income in a key industry for a given tradable tax credit would be problematic for the smoothing effects described here.

Similarly, when macroeconomic fluctuations – changes in the "overall performance of the economy"[119] – occur, firms may adjust output functions to anticipate or in response to reduced demand. Tradable tax credits may smooth macroeconomic fluctuations by providing stable incentives that counteract reduced demand.[120] When macroeconomic demand fluctuates, companies must adjust their production functions accordingly, and these adjustments have costs.[121] Adjustment costs constitute deadweight loss, because an actual adjustment is not warranted, and are a symptom of market failure. But adjustment costs can be reduced by counteracting the necessity of adjustment. Tradable tax credits act as a counterbalance to macroeconomic shocks by maintaining demand for incentivized behaviors, and by providing liquidity during downturns. This has the effect of smoothing macroeconomic demand, which helps firms avoid adjustment costs.

For example, the value of a tradable tax credits for LEED certification would not change during an economic slowdown, so the building owner would have the same incentive to undertake a retrofitting project and the construction company would have the same incentive to be involved in the transaction.[122] Such avoidance improves universal efficiency as resources that may have been devoted to adjusting to fluctuations may instead be used more productively. If aggregate macroeconomic demand[123] were depressed by any number of factors, such as a financial crisis or housing market crash, the tradable tax credit for green retrofitting could help counteract

119. SAMUELSON & NORDHAUS, *supra* note 2, at 5.

120. *Cf.* Batchelder et al., *supra* note 12, at 61 ("Uniform refundable credits can help stabilize macroeconomic demand fluctuations . . . by eliminating fluctuation penalties in a way that increases the value of the tax incentive in recessionary periods."). Batchelder also notes that "there is broad consensus in support of taxing and spending policies that are automatically countercyclical." *Id.*

121. *See id.*

122. This analysis reveals that tradable tax credits may not be as effective smoothing mechanisms as are refundable tax credits in some circumstances. When demand flags, tradable tax credits may lose value and thus reduce the incentive to act. *See infra* note 124 (discussing problems in the LIHTC market in 2008).

123. Aggregate demand is the "total amount that different sectors in the economy willingly spend in a given period." SAMUELSON & NORDHAUS, *supra* note 2, at 416.

that decreased demand by maintaining demand for retrofitting services.[124]

This smoothing effect therefore can counteract income shocks and macroeconomic fluctuations in ways that nonrefundable credits, deductions and exemptions, all of which provide varied incentives directly tied to annual income, do not. Tradable tax credits can remain effective regardless of such shocks and fluctuations: taxpayers continue perform socially advantageous activities when the incentive to act remains constant.[125]

2. *Analysis of the Technical Efficiency of Tradable Tax Credits*

Analyzing technical efficiency involves considering "the cheapest way the government can induce" a behavior that has positive externalities, or, put another way, the extent to which the government gets "bang for its buck" for the resources it devotes to a policy objective.[126] In arguing that tax expenditures may be preferable to direct expenditures, Edward Zelinsky made the case that "the transaction costs of using the tax

---

124. One important concern with regard to the suitability of tradable tax credits to counter macroeconomic fluctuations is that the non-government entities involved in a tradable tax credit transaction are subject to the same macroeconomic forces that may need to be counteracted. This concern was brought to the forefront with the LIHTC in 2008, when the market for LIHTCs completely froze during the economic crisis. *See* GAO, NMTC, *supra* note 116, at 30. This was a particularly extreme example, because the recession in 2008 was prompted in large part by issues in housing markets. Further, the major investors in LIHTCs at that time included Fannie Mae and Freddie Mac, which racked up enormous losses and thus had no use for LIHTCs and rapidly exited the market. *See* Nick Timiraos, *Treasury Blocks the Sale of Tax Credits by Fannie*, WALL ST. J., Nov. 7, 2009, at B1 (describing Fannie Mae's attempts to sell $3 billion of LIHTCs that it could not make use of due to lack of tax liability; the deal was blocked by the Treasury Department for reasons related to the federal government's conservatorship of Fannie Mae and Freddie Mac). The price of LIHTCs collapsed, and the government had to step in and, on a temporary basis, replace allocations of LIHTCs with direct grants to keep projects moving. *See* GAO, NMTC, *supra* note 116, at 30. The circumstances in 2008 seem to have constituted a perfect storm of a severe recession that centered on the industry the tax credit was designed to operate in, but it may nonetheless be a concern as far as counteracting modest macroeconomic fluctuations as discussed here.

125. *Cf.* Batchelder et al., *supra* note 12, at 55-56 (describing "fluctuation penalties" that result when tax incentives are not uniform).

126. Zelinsky, *supra* note 16, at 992; Batchelder et al., *supra* note 12, at 45-46.

system to implement government policies may be less . . . than the cost of implementing direct expenditure programs."[127] This section considers the technical efficiency of tradable tax credits as compared to direct expenditures and refundable tax credits,[128] including analysis of enforcement costs associated with different types of incentives.

The primary criticism of tradable tax credits – the one that echoes throughout Batchelder's work in the insistence that refundable credits are the only "straightforward" or "simple" way to create behavioral incentives in the tax code[129] – is that tradable tax credits are necessarily too complex to compete with the technical efficiency of other mechanisms of government intervention. Critics of tradable tax credits have not expounded on the complexity concern,[130] and complexity can take on various forms, some of which are more applicable to tradable credits than others.[131] Rule complexity and compliance complexity are not obviously more problematic with tradable tax credits than with other types of tax incentives. One measure of these types of complexity is the length of time the IRS estimates it will take to understand and complete a tax form.[132] The IRS estimates for the LIHTC and NMTC are 8

127. Zelinsky, *supra* note 16, at 978.

128. A key issue encompassed in technical efficiency is the marginal versus inframarginal impacts of a tax incentive. Inframarginal impacts are the behavior that would have occurred regardless of the incentive provided; marginal impacts are changes in behavior that are actually caused by the government incentive. *See* GRUBER, *supra* note 104, at 541. Technical efficiency is increased when inframarginal impact of a provision is minimized and marginal impact is maximized.

129. Batchelder et al., *supra* note 12, at 28-29.

130. *See, e.g.*, Burman & Gruber, *supra* note 88.

131. David Bradford identified three types of complexity: rule complexity, or how complicated the law is to understand; compliance complexity, or how complicated the law is to comply with; and transactional complexity, or the extent to which the law requires complicated arranging of affairs. *See* GRAETZ & SCHENK, *supra* note 21, at 31 (citing DAVID F. BRADFORD, UNTANGLING THE INCOME TAX 266-67 (1986)).

132. The IRS provides estimates of the time necessary to learn about the law or form, perform necessary record keeping, and prepare and send the necessary form to the IRS. *See, e.g.*, I.R.S. Form 8864, *available at* http://www.irs.gov/pub/irs-pdf/f8864.pdf. This paper does not intend to suggest that these estimates provide a definitive measure of rule and compliance complexity of various tax provisions, but the author believes that the numbers are at least indicative of the relative complexity.

hours 47 minutes and 8 hours 45 minutes respectively.[133] The IRS estimates for the Renewable Fuel Credit and the Investment Credit, both of which are non-tradable tax credits, are 11 hours 53 minutes and 34 hours 5 minutes respectively.[134] Other non-tradable tax credits require both more and less time than the existing tradable credits. With the green retrofitting example, it is easy to imagine that the added rule and compliance complexity of a tradable credit as compared to a refundable or direct expenditure might not be significant. Regardless of the structure, there will be some rule and compliance complexity and the fact that the benefit of the tax credit is tradable adds some additional parties to that complexity.

Transactional complexity, however, is more problematic for the tradable tax credit mechanism. The partnership arrangement required to trade LIHTCs,[135] for example, seems to introduce significant complexity and accompanying costs to arrange to receive the tax credit. However, although there is no doubt that the mechanism requires complexity, it is a mistake to think that the tax credit mechanism introduces this complexity. Even if there were a direct subsidy to a developer to build low-income housing, significant (and complex) legal entities would be necessary to own and manage the property. Therefore at least some of the complexity that is perhaps attributed to LIHTCs is in fact a symptom of the complexity requisite in any property ownership and development enterprise.

Additionally, the tradable tax credit mechanism provides a clear measure of the transaction costs associated with the credit in the form of the market price for the credits. The market price for LIHTCs has reached as high as $0.95 per $1 of tax credits.[136] Thus the costs imposed on third parties were

133. I.R.S. Form 8586, *available at* http://www.irs.gov/pub/irs-pdf/f8586.pdf; I.R.S. Form 8874, *available at* http://www.irs.gov/pub/irs-pdf/f8874.pdf.

134. I.R.S. Form 8864, *available at* a http://www.irs.gov/pub/irs-pdf/f8864.pdf; Instructions 3468, *available at* http://www.irs.gov/pub/irs-pdf/i3468.pdf. The Investment Credit form includes credits for several disparate activities.

135. *See supra* Part II.B.1.

136. ERNST & YOUNG, SURVEY *supra* note 53, at 10. *See also supra* note 116 (describing the markets for LIHTCs and NMTCs).

less than five percent of the credit amount.[137] This still leaves the possibility that sellers of LIHTCs are absorbing high transaction costs, but as described above it is not clear that those costs are necessarily substantial additional costs to such a development. Although there is no readily available point of comparison for direct expenditure programs, this indicates that the costs associated with tradable credits need not be prohibitive.

Enforcement concerns are a key source of rule, compliance and transactional complexity for many tax expenditures. Some argue that generally policy is better administered through direct transfers where oversight can be provided by people with expertise in applicable policy areas, rather than by the IRS.[138] Expertise, it is thought, can help reduce enforcement costs. Consider some alternatives: in the LEED certification example, a direct transfer would likely be administered through the Environmental Protection Agency or the Department of Energy, which are presumably staffed by people with expertise in energy efficiency. Those experts could sculpt appropriate means of enforcing the detailed requirements for entities to qualify for green retrofitting subsidies, and are well situated to review projects that claim to qualify. In contrast, the IRS has little or no expertise in development, let alone the details of energy efficiency standards and the like that are part of the green retrofitting requirements.

However, others have noted that if government involvement in programs administered through the I.R.C. continues as something other than tax expenditures, complexity in the I.R.C. will simply be replaced by complexity in other govern-

137. If ß in the LIHTC context is substantial – for example, $.20 per dollar of credit – then the transaction costs could be much higher ($.25 per $1 of credit, but with $1 of credit yielding $1.20 of benefit to society) and still yield a market price approaching the actuarial value of the tax credit. Nonetheless, in such a circumstance the tradable tax credit structure would be providing a benefit as compared to refundable tax credits or direct subsidies.

138. Batchelder et al., *supra* note 12, at 73 ("consideration should be given to whether the subsidy is better delivered through the tax system or through direct transfers or regulation. For instance, the transfer system may have greater expertise in the area, lower administrative and compliance costs, or more effective legislative oversight, enforcement, and delivery capabilities.").

ment programs.[139] Further, for some types of government initiatives, the IRS may be better situated to administer the program than are other government agencies.[140] For example, the IRS may be a preferable provider of enforcement for the LIHTC because oversight of that program requires expertise in distinguishing depreciable versus non-depreciable expenses.[141] The IRS' expertise may even be valuable if the program were administered as a direct subsidy, if the subsidy were (similar to the actual LIHTC) based on qualifying expenses.

In contrast, tradable credits allow the IRS to outsource the expertise and labor necessary for enforcement. Refundable credit schemes, like the EITC, are generally wholly administered by the IRS. This has led to significant enforcement issues where the IRS lacks necessary expertise.[142] In a tradable tax credit system, the third parties that buy a tradable credit are incentivized both to undertake ex ante due diligence and ex post oversight. Ex ante due diligence consists of investigating the entity seeking to qualify for the tradable tax credit before the credit is allocated to that entity. This may include making a risk assessment of the likelihood that the capital the investor provides will lead to qualifying activity. Ex post oversight is the ongoing involvement of the investor once the tax credit has been allocated (and once the benefits are flowing through to the investor) to ensure that the qualifying entity will maintain compliance with IRS requirements for the duration of the tax credit period. Congress recognized this as a benefit to the safe harbor leasing scheme, which created an ongoing relationship between the entity that qualified for a tax benefit and the entity that realized the benefit.[143]

---

139. *See* Desai et al. *supra* note 28, at 10-11 (citing David A. Weisbach & Jacob Nussim, *The Integration of Tax and Spending Programs*, 113 Yale L. J. 955 (2004)).

140. The authors note that with the LIHTC, a key element of oversight is of the nonprofit status of developers, which are part of the IRS' "routine activities." *See* Desai et al. *supra* note 28, at 11.

141. *See id.*

142. *See* Lawrence Zelenak, *Tax or Welfare? The Administration of the Earned Income Tax Credit*, 52 UCLA L. REV. 1867, 1869-70 (2005) (describing how EITC has been target of fraud and abuse accusations, and, in response, additional enforcement procedures have been added to the IRS' administration of the EITC.).

143. Joint Committee on Taxation, Safe Harbor Leasing Provisions Under ACRS, Daily Tax Rep. (BNA) No. 205, Oct 23, 1981, at J-8 ("it is argued that

Existing tradable credits provide a window into possible enforcement benefits of involving a third party in the incentive scheme. The LIHTC uses both investors, who provide initial capital for housing developments, and state housing agencies, which allocate the tax credits within each state, to provide oversight and enforce the LIHTC requirements.[144] Local expertise is particularly useful in the construction and development context, where first-hand knowledge of the intricacies of past projects can be telling of future success rates. If the best indicators of future success in building and managing a housing development are past involvement in projects in a concentrated geographic area and familiarity with industry and regulatory players in that area, an official in Washington, DC is particularly ill-suited to determine the likelihood of success as compared to anyone immersed in the local community in question. In a direct spending program version of the LIHTC incentive, the review and enforcement function would be carried out by the Department of Housing and Urban Development; in the tradable scheme, there is no centralized oversight. The state agency, which generally has a history of working with housing developers in the state, allocates the tax credits based on specific proposals. Further, a proposal is strengthened in the eyes of the state agency by the support of reputable investors. These investors undertake their own due diligence. Combined, this creates significant checks on compliance that would not exist in other structures.[145] Further, the investors' interest in maintaining the flow of tax benefits creates an internal enforcement mechanism that reinforces the threat of audit.[146]

---

lessors will have an economic interest in making certain that investments are, in fact, made before tax benefits are claimed. The government will not have to rely merely upon audit by the IRS.").

144. Desai et al. *supra* note 28, at 18-19 (third parties deemed "delegated monitors" who ensure compliance because "their entire economic return for their investment is contingent on compliance.").

145. It is, of course, possible to engage local agencies with an incentive scheme other than a tradable credit, for example by using block grants to states to carry out a direct spending program.

146. At the same time, if the government were to eliminate enforcement entirely, there would be no reliable enforcement mechanism from investors, who are spurred by fear of penalties from the government. So third party enforcement must supplement, not replace, government enforcement.

These enforcement costs must be borne by someone, and the most efficient option is to assign the burden to whatever party is best situated to ensure enforcement at low cost. A third party logically fits that description better than the IRS, and perhaps even better than a federal or state administrator with applicable expertise. An investor or local government official who has easy access to a wide variety of information about a project (for example, who will be aware whether necessary local permits have been procured or who perhaps is already monitoring progress on the project) can help determine whether effort should be expended to undertake an audit. In comparison, a government official will likely rely on information submitted by an entity seeking to avoid audit or oversight. It also bears keeping in mind that when the government does not provide as much enforcement (but maintains the threat of recapture of tax benefits), those costs are born by other parties. This is reflected in the market price of tradable tax credits, which thus should be compared to the overhead costs of direct expenditure programs or programs administered wholly by the IRS.

In all, tradable tax credits offer potential technical efficiency advantages as well as disadvantages. While enforcement may be more efficient and effective with a third party involved, layers of bureaucracy associated with different government units involved in enforcement may counteract any benefits. Similarly, while complexity of compliance requirements and transactional structures necessary to take advantage of tradable tax credits may seem daunting, in fact much of this complexity may be inescapable even absent tradable tax credits.

C. *Political Advantages of Tradable Tax Credits*

Tax policy is freighted with political considerations. The LIHTC and NMTC, for example, benefited from broad political coalitions that perhaps would not have supported direct spending programs.[147] Safe harbor leasing was controversial, and was quickly repealed, despite having the desired policy result.[148] This section argues that the tradable tax credit offers significant political advantages that other forms of government intervention lack in two respects. First, the tradable tax credit

147. *See supra* Parts II.B.1 and II.B.2.
148. *See supra* Part II.B.3.

mechanism uniquely helps forge broad political coalitions that ease enactment and may help protect against repeal. Second, there are procedural advantages to enactment of federal policy through the tax code rather than as direct spending programs.

1. *Broad Political Constituencies*

Perhaps the most notable political advantage of tradable tax credits is that the mechanism, by including and benefiting more parties, creates a broad political constituency to advocate for the creation and maintenance of the provision.[149] Many tax incentives or direct subsidies create incentives for parties to change their behavior; a well-structured tradable tax credit creates incentives that benefit multiple parties in different ways. To return to the retrofitting example, the building owner wants to partake in the behavior because, with a tax incentive, it is financially beneficial. At the same time the construction company is motivated by the possibility of creating goodwill in the community (including the possibility of positive media coverage and potential advertising benefits) it will derive from being associated with an environmentally friendly project. If a proposed government incentive were a direct subsidy or refundable tax credit, the political constituency supporting the provision would be limited to building owners, and perhaps environmentalists. However, with a tradable credit, there is a new additional party, construction companies, who seek a benefit ($ß_c$) that will join the political constituency behind the tax incentive.[150]

149. Desai describes the general phenomenon of broad political constituencies and the specific constituency that supports the LIHTC, which is made up of housing advocates, developers and intermediaries. *See* Desai et al., *supra* note 28, at 19.

150. Additional interested parties may also result in lobbying and rent-seeking that has negative consequences for society in terms of efficiency and fairness. In the LEED example, the construction company possibly has another interest: in increasing demand for construction projects generally. This does not distinguish tradable tax credits from other types of government intervention, but the stronger political constituency described here means that a tradable tax credit may become fertile ground for rent-seeking because it will be well-protected by a variety of interests. Recall that this paper assumes that government policymakers can identify activities that create positive externalities but that will not occur without government intervention. *See supra* Part II.A; *supra* note 108 and accompanying text. Lobbying

The political constituencies behind some existing tradable tax credits, and the interesting bedfellows seen proposing tradable tax credits, are informative. For example, the Low-Income Housing Tax Credit was a last minute addition to the Tax Reform Act of 1986, but it quickly gained a strong constituency of housing advocates, developers and investors.[151] This constituency successfully fended off attempts to scale back or eliminate the LIHTC,[152] and it has succeeded in enlarging the LIHTC significantly during a time period when other comparable social programs – and even tax expenditures that are not tradable – have been limited. Similarly, enactment of the NMTC was prompted by support of a group called the NMTC Coalition, which brought together development organizations with wide-ranging foci (local to national), financial institutions and others.[153] The NMTC now has widespread support from community development organizations, public agencies, and investor groups.[154] With a refundable tax credit, the constituency pushing for the credit will necessarily be limited to people and groups with narrower interests than is the case with a tradable tax credit.

---

and rent-seeking may alter this assumption, or at least alter the ability of policymakers to follow through on this assumption. To the extent that strong political coalitions can influence undesirable policy outcomes, the tradable tax credit mechanism may carry inherent risks that are less acute with other forms of tax credit.

151. Desai et al., *supra* note 28, at 19; Interview with F. Barton Harvey III of The Enterprise Foundation, COMMONWEAL, available at http://www.commonweal.org/programs/fg_interviews/harvey.html ("And I hate to say it as crassly as this but you have to have something that has a larger constituency that other people care about that is part of the power structure of this country is really doesn't care about fair anything: fair housing or fair anything.").

152. Barton Harvey III, *supra* note 151 ("It has too many constituents and it is doing too many good things, the banks like it."). Additionally, in 2003, supporters of the LIHTC feared that the proposal to exempt dividends from taxation would depress the market for LIHTCs, and thus opposed it. Barton said "they did attack it indirectly, the Bush Administration, when Treasury got hold of this dividend tax idea. They were going to put some strictures on that would have greatly diluted the low income housing tax credit. And we went to war [in Congress] and won for other reasons than us. That went away." *Id.*

153. Novogradac, *supra* note 29, at 456.

154. The New Markets Tax Credit Coalition Board of Directors tellingly includes representatives from each of these groups. *See* NEW MKTS. TAX CREDIT COAL., *supra* note 60, at ii.

There are some other features of tradable tax credits that are inherently more appealing in the current political environment than are the corresponding features of refundable tax credits and direct spending programs. For one, the market-based features of tradable credits, whereby value is created through private transactions, is seen as appealing to certain political groups. Further, many people object to allowing negative tax liability on ideological grounds, and tradable tax credits avoid expressly endorsing negative tax liability. Similarly, tradable tax credits avoid the government making direct payments, an action that is particularly disdained in some currently powerful political constituencies.

2. *Ease of Enactment as Compared to Direct Spending*

A perennial feature in discussions of the advantages of tax expenditures is the ease of enacting and maintaining tax expenditures as compared to direct spending measures. Tradable tax credits, like other tax provisions, provide relative ease of passage. Tax expenditures are excluded from the regular budget process, and thus avoid the close scrutiny applied annually to appropriations both by Congress and by the Office of Management and Budget.[155] Further, a spending measure must survive several hurdles in order to be enacted: appropriations committees in each house of Congress must approve a spending measure, and then the appropriation must be authorized through separate legislation that originates in one (or more) of the subject-specific committees in each house. The spending and authorization measures must then each be approved by each house. In contrast, a tax expenditure faces just one hurdle at the committee level in each house: the Ways and Means Committee in the House and the Finance Commit-

155. *See* SURREY, *supra* note 18, at 4 (discussing the early motivations for creating a tax expenditure budget). Note that the compilation of tax expenditures became a required part of the budget process in 1975 under the Congressional Budget Act of 1974. *See* SURREY & MCDANIEL, *supra* note 14, at 1-2. Even with this budget, tax expenditures escape the sort of annual review required of regular spending measures: tax provisions are, by default, permanent measures unless a sunset is specified, whereas spending measures aside from entitlements must be reenacted each year.

tee in the Senate.[156] Additionally, discretionary spending has at various times been subject to strict limits.[157] Tax expenditures have not been subject to similar controls.[158] Part of the explanation for this lies in how tax expenditures are understood politically: many view tax expenditures as tax reductions.[159]

The preceding point is often made by critics of tax expenditures, but it is also seen as a positive aspect of tax expenditures. The ease of enactment is a benefit to the proponents of policies carried out via the tax code. Additionally, the generalist committees that shape tax provisions may be less subject to political capture by intently focused interest groups than the issue specific committees that shape other policy enactments.[160] The result is that policymakers have "increasingly relied on the tax code rather than direct government expenditures".[161] This increasing reliance is evidenced by the fact that non-business tax expenditures rose from 4.2% of GDP in 1976 to 6.5% of GDP by 2001.[162]

---

156. *See generally* SURREY & MCDANIEL, *supra* note 14, at 101 (describing that tax expenditures face less Congressional scrutiny than regular expenditures by way of avoiding the regular budget process).

157. In 1990 and 1993, deficit reduction acts passed by Congress placed limits on discretionary spending that made it relatively easier to enact tax expenditures. Batchelder et al., *supra* note 12, at 40 (citing Eugene Steuerle, *Tax Policy from 1990 to 2001*, in American Economic Policy in the 1990s 139, 154 (Jeffrey A. Frankel & Peter R. Orzsag, eds., 2002)). President Obama called for a three-year freeze in discretionary spending in 2010, and in his 2011 budget called for the freeze to be extended to five years. Jackie Calmes, *Obama Counters G.O.P. With Plan to Extend Spending Freeze*, The New York Times, Jan. 25, 2011, at A16, *available at* http://www.nytimes.com/2011/01/26/us/politics/26fiscal.html.

158. Leonard Burman, *Let's Freeze More Than Chump Change*, THE WASHINGTON POST, Feb. 2, 2010, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2010/02/01/AR2010020103072.html.

159. *See* Steuerle, *supra* note 157, at 154.

160. Desai et al., *supra* note 28, at 10 (arguing further that "subsidies are less likely to be inefficiently large if they are directed through the tax system rather than in the form of direct subsidies.").

161. Batchelder et al., *supra* note 12, at 39 (attributing this increase to "perceived or real incentives" in the legislative process to enact policy through the I.R.C., though not discussing those incentives in any detail).

162. Leonard Burman, Eric Toder & Christopher Geissler, *How Big Are Total Individual Income Tax Expenditures, and Who Benefits from Them?* 5 (Tax Policy Center Discussion Paper No. 31, Dec. 2008), *available at* http://www.taxpolicycenter.org/UploadedPDF/1001234_tax_expenditures.pdf. Non-

Despite this expansion of tax expenditures, Batchelder notes that while many refundable tax credits have been proposed, the proposals have seldom been enacted; Batchelder theorizes that this is because efficiency arguments have been ignored.[163] There are other reasons why refundable credits may be spurned by Congress even though they are more efficient than some of the alternatives. Most notably, refundable credits are more costly budget items than are nonrefundable credits or deductions. Because a refundable credit provides a uniform subsidy, for it to have the same budget impact of a deduction or nonrefundable credit, it either must be nominally smaller, or must necessarily be available to fewer taxpayers. For policymakers who are reluctant supporters of a measure, or for any policymaker operating under strict budget constraints (as is often and currently the case in Congress), the effect of an item on the budget is an important consideration. Where the benefit of an incentive is difficult to ascertain, increasing the size of an incentive by making it refundable may be unappealing, even if there is an associated efficiency gain. Likewise, making a provision nonrefundable can increase government revenues, though advocates of a given policy will be quick to point out that this is just a way to dilute the effectiveness of the provision.

D. *The Fairness of Tradable Tax Credits*

Fairness – or equity – is another canon of tax policy analysis. This section argues that tradable tax credits can match the equity of refundable tax credits. The foundational assumption of the progressive income tax, in which there are higher marginal rates for higher levels of income, is that those taxpaying entities with greater income should pay more tax.[164] The extent to which tax liability and income correspond is described

---

business tax expenditures are defined as "all tax expenditures reported on individual income tax returns except those that affect taxes paid by business, such as depreciation allowances and business tax credits." *Id.* at 4. From 1976 to 1985, non-business tax expenditures rose from 4.2% to 6.4%, then dropped to 4.6% in 1990 thanks to the Tax Reform Act of 1986. *Id. at 4-5.* By 2001, these tax expenditures topped out 6.5% of GDP, with the later reduction to 5.7% in 2006 attributed to lower marginal rates enacted in 2001. *Id.*

163. Batchelder et al., *supra* note 12, at 41-42.

164. *See, e.g.*, MALMAN ET AL., *supra* note 19, at 12 ("A fairness ideal based on ability to pay underlies the income tax.").

as vertical equity: where a taxpayer with high income pays less income tax than a taxpayer with average income, the principal of vertical equity is violated.[165] A corollary to vertical equity is horizontal equity: similarly situated taxpayers with the same income should pay the same amount of income tax.[166]

Tax expenditure literature has long warned against the "upside-down benefits" that occur when deductions, exemptions and deferrals are used to incentivize behavior.[167] When these mechanisms are the basis of tax expenditures, taxpayers with higher marginal rates receive greater benefits than taxpayers in lower marginal rates. For example, a taxpayer in the 35% income tax bracket will receive a benefit of $.35 for every dollar of deduction received, whereas a taxpayer in the 15% bracket who performs the exact same incentivized behavior to the same extent will receive a benefit of just $.15 for each dollar of deduction received.

Tradable tax credits address the upside-down benefit problem.[168] With a credit generally, the incentive does not vary across different marginal tax rates. Taxpayers in the 35% and 15% income tax brackets will receive a benefit of the credit amount, creating a uniform incentive and eliminating the upside-down subsidy effect. The size of the tax incentive

---

165. There are varied descriptions of vertical equity. Gruber describes it as "the principle that groups with more resources (higher income, higher wealth, higher profits) should pay higher taxes than do lower resource groups." GRUBER, *supra* note 104, at 533. Although there is much to discuss as far as the merits of the vertical equity criteria and various alternative ways to consider vertical equity, it is assumed here that progressive marginal rates in the tax code are to be maintained with the enactment of tax expenditures.

166. Gruber defines horizontal equity as "the principle that individuals who are similar[ly situated] but who make different economic or lifestyle choices should be treated in the same way by the tax system." *Id.* This seems to raise significant problems as far as tax expenditures are concerned: tax incentives impose different levels of taxation for parties who take part in certain behaviors.

167. *See* SURREY, *supra* note 18, at 136. Savings from deductions, exemptions, and deferrals necessarily vary based on each taxpayer's marginal rate, thus providing greater tax benefits to taxpayers with higher income.

168. *See id.* at 98 ("The credit device . . . does not involve the favoritism for the well-to-do individual or large-size corporation that is built into the exclusion or deduction device, since each taxpayer (with tax sufficient to absorb the credit) obtains the same rate of initial assistance per dollar of receipt or expenditure.").

does not increase with income, thus a tradable credit does not act as a countervailing force to progressive rates.[169] Refundable credits and tradable credits add another advantage: they do not vary even when the taxpayer has zero tax liability.[170] This is a particularly important consideration in the taxation of corporations: a subsidiary and an independent business in the same industry may have equivalent income when viewed alone, but face very different tax consequences depending on the tax liability of the parent company. Tradable tax credits allow both entities the same benefit from a tax incentive – and the same incentive toward performing a particular behavior.[171]

This leveling of the playing field, however, does cause some further equity complications. As discussed in the LEED certification example, some additional benefit, $ß_c$, must be conferred on the construction company to prompt the tradable tax credit transaction. This benefit of tradable tax credits may counteract progressivity because ß is exploited by parties with tax liability and so the benefit never goes to parties without tax liability. Thus some benefit in a tradable tax credit scheme flows to parties with greater resources as measured by tax liability. Further, where the market for tradable tax credits is discounted (tables 4 and 5 when ∂ provides the building owner with less money), the party purchasing the tradable credit stands to benefit on the transaction, but will only be differentiated from any similarly situated entities based on the transaction spurred by the existence of a tax incentive. This sort of tax liability reduction undermines vertical equity, and is precisely the set of circumstances that led to political backlash over safe harbor leasing and its quick repeal.[172] A tradable tax credit thus must be structured to avoid providing a benefit to

169. *See generally* Jenn, *supra* note 18, at 563-65 (discussing horizontal equity and tax credits).

170. *See supra* note 24 and accompanying discussion. Nonrefundable credits provide less of a benefit to taxpayers whose tax liability is less than the credit amount.

171. *See* Warren & Auerbach, *supra* note 74, at 1768-71 (discussing various alternative ways to define competitive neutrality and thus to achieve the same incentive across parties with different tax liability via transferability of tax benefits).

172. *See* discussion *supra* Part II.B.3.

sophisticated parties with large tax bills such that the principle of vertical and horizontal equity might be violated.[173]

IV.
TRADABLE CREDITS IN PRACTICE

As the LEED certification example indicates, it is possible to construct a scenario in which a tradable tax credit could provide efficiency gains as compared to other forms of tax incentives. However, many complications arise in moving from a highly simplified example to the reality of creating an effective tax incentive in the form of a tradable tax credit. These complications will necessarily be specific to the social or economic policy goal underlying and giving rise to the tradable credit. This section provides some general thoughts on real-world concerns that may temper the usefulness of tradable tax credits in practice.

A successful tradable tax credit regime must offer the possibility of welfare gains by way of creating a benefit ($ß_c$) in addition to the positive externalities created by the activity being incentivized. Thus there must be some benefit to a private party for being associated with incentivized behavior, a benefit that would not exist if the incentive were delivered directly by the government. The LIHTC and NMTC, which provide low-income housing and funding for development in low-income neighborhoods respectively, are good examples of this effect. In each case, the activity being incentivized has profit potential, but is also a public service and may fulfill other regulatory obligations. For example, the Community Reinvestment Act (CRA) requires certain financial institutions to lend in local low-income communities.[174] Businesses with expertise in the incentivized activity have something to gain – goodwill and meeting CRA obligations – from being associated with the projects. And these businesses can apply their expertise in a way that minimizes enforcement costs for government and society. In contrast, there was no such effect in the safe harbor leasing regime. Thus a good guideline for policymakers is to determine whether the incentivized activity is associated with public service or charitable projects, or somehow works in tan-

173. *See* discussion *infra* Part IV.

174. Desai et al., *supra* note 28, at 16-17. *See supra* note 114 (discussing LIHTCs and the Community Reinvestment Act).

dem with other policy goals. Of course, this is a very difficult line to draw: almost every tax expenditure or proposed tax expenditure is said to benefit the public somehow. Policymakers will need to employ discriminating analysis to distinguish between policies that in fact benefit society as a whole and those policies that are primarily beneficial to rent-seekers. Additionally, policymakers should examine the extent to which implementation and enforcement of a policy requires expertise most readily available in the private sector. Where there is such overlap, it may be beneficial to involve and include various interested parties by using a tradable tax credit regime.

Beyond efficiency concerns, policymakers should be aware of the political constituency that is created by pairing varied interests in a tradable tax credit regime. The right formula – for example the developers and community financial institutions who mutually benefit from the LIHTC – can create a strong coalition in support of a measure, but can also make it difficult to alter or eliminate a tradable credit once enacted. This is a double-edged sword that policymakers may wield effectively to achieve policy goals that are otherwise out of reach politically, but that can lead to entrenchment and capture as well. The potential for a strong constituency – for example linking groups with a social interest along with investors – exacerbates the risks of rent-seeking and misdirected resources described above.

Finally, a successful tradable tax credit must be designed with appreciation of the equity implications of the scheme. Safe harbor leasing was quickly repealed because it seemed to benefit only highly sophisticated corporations, and the complexity of the mechanism created the appearance of gaming. Similarly, the LIHTC market increasingly came to be dominated by a small number of sophisticated investors. This drove up the price of LIHTCs, which was beneficial to LIHTC projects, but proved problematic when those investors simultaneously ended up with large losses and no tax liability to offset in the recent recession.[175] Policymakers should strive to make the tradability transparent, with open markets and public pricing similar to a publicly traded security, to ensure that the players in a tradability regime need not be highly sophisticated. If the benefits of tradable tax credits are widely availa-

175. *See* Timiraos, *supra* note 124.

ble, and do not require significant sophistication, concerns about tradable tax credits counteracting progressivity will be unrealized. Further, open trading will minimize transaction costs, maximizing the benefits of tradable tax credits, and will help minimize administrative costs associated with tradable tax credits.

V.
CONCLUSION

Tradable tax credits have not received the same attention from policymakers or academics that other forms of tax incentives have garnered, even though tradable tax credits can be the economic equivalent of refundable tax credits. In scenarios where the potential benefits of tradable tax credits may be fully realized, for example the LEED certification scenario described above in which a third party can benefit from the tradable tax credit structure, tradable tax credits can provide efficiency benefits that other government interventions cannot match. As policymakers engage in discussions about how to reform the I.R.C., tradable tax credits should not be cast aside as merely a necessary political accommodation. Rather, policymakers should acknowledge and consider that tradable tax credits can provide significant efficiency benefits as compared to other forms of government intervention including other forms of tax incentives. And in certain circumstances tradable tax credits can surpass even refundable tax credits, the heretofore preferred form of tax incentive, in efficiency. Tradable tax credits accomplish this when an activity that creates a positive externality can provide an additional benefit to another taxpaying entity. At the same time, tradable tax credits may be more attractive than refundable tax credits and other forms of government intervention in terms of enforcement costs and political feasibility.

As Congress moves towards actually reforming the I.R.C. for the first time in a quarter century, much attention will be focused on reducing tax expenditures. To the extent that some tax expenditures persist, or that in subsequent years following comprehensive reform, social and economic policy once again creeps into the I.R.C., policymakers should strive for provisions that are efficient and fair. Further, if past is prologue, it is clear that an additional important – if not primary

– consideration in developing and reforming tax expenditures will be politics. Tradable tax credits offer potential benefits in all of these key areas, and thus warrant further attention as a viable and useful mechanism for shaping social and economic policy through the tax code.