Optimal Income Taxation and Charitable Giving

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Abstract

The philanthropic sector is highly consequential, particularly in the United States, and the most important policies directed toward this sector are tax policies. Yet most economic analysis of the optimal tax treatment of charitable giving is ad hoc, treating it as a subject unto itself. This article advances a different approach: integrating the tax treatment of charitable giving into the optimal income tax framework that has been developed over the past half century. The results supplement or overturn conventional wisdom. Notably, the analysis of revenue effects and the purported efficiency of subsidies to charitable giving is recast, focusing on the pertinent externalities rather than the direct revenue costs, which themselves are irrelevant in the basic case. Distributive concerns regarding donors are also misplaced because distributive effects can be offset by tax rate adjustments to the broader income tax and transfer system. These ideas are developed systematically, with an emphasis on intuition rather than technical formalism. The analysis also broadens and deepens the assessment of externalities, which are more numerous and heterogeneous than is generally recognized. Finally, refocusing our understanding of the optimal tax treatment of charitable giving identifies important subjects requiring further research.

Keywords: optimal income taxation, charitable contributions, philanthropy

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I. Introduction

The intersection of tax policy and charitable giving is a subject of immense social importance, particularly in the United States. Charitable giving is approaching a half trillion dollars per year, and the nonprofit sector is unusually large and consequential in supporting activities that include medical and other research, education, the arts, the needy, and organized religion. The most significant government policies regarding this sector are tax policies: the charitable contribution deduction from income and estate taxation, and tax-exempt status for nonprofit operations and endowments. Economics research and policy advocacy has addressed many issues in this domain.[1] Too often, however, economic analysis of the tax treatment of charitable giving treats it as a subject unto itself. This ad hoc approach sacrifices much of the benefit from economic analysis, a field that draws power from the systematic development and application of fundamental principles and methods to illuminate problems that, despite their distinctive features, often are conceptually related.

The central question addressed in this article is one that has been largely neglected thus far: How does the optimal tax treatment of charitable giving fit into the framework for optimal income taxation that has been developed over the past half century? Systematic analysis of this question generates fresh insights and calls into question some important features of conventional wisdom. Given the richness and complexity of the subject, the treatment here will not be comprehensive but instead aims to complement other lines of research.

To give a flavor of some of the analysis, consider the following sequence, which moves from the specific to the general. First, observe that charitable giving is a species of giving, the most prevalent form of which constitutes gifts within families, often flowing from parents to children. There are several differences that will be highlighted, but there are also many similarities. Moreover, the subject of private voluntary transfers has received a great deal of attention, particularly in recent decades, including from an optimal income tax perspective; hence, it makes sense to leverage that work to better understand optimal policy toward charitable giving. Suggestive remarks along these lines appear in Kaplow (2001, 2008), but this research agenda has not previously been developed. Indeed, it is remarkable that economic analysis of tax policy toward charitable giving has not leveraged the literature on tax policy toward giving more broadly.

[1] Prior economics research on tax policy and giving, largely using different approaches from that developed here, includes Atkinson (1976), Clotfelter (1985), Diamond (2006), Hochman and Rodgers (1977), and Saez (2004). There is also a literature that addresses particulars of U.S. tax policy, for example, Goldberg et al. (2006) and Steuerle et al. (2021). An important, related field is the economic analysis of charitable giving, mostly without regard to tax policy, which is surveyed in Andreoni (2006) and Andreoni and Payne (2013).

Next, any form of giving is but one of many ways that individuals can spend their disposable income.[2] Stepping back, the different uses of disposable income have themselves been a central subject of study in the field of optimal taxation. Starting with Ramsey (1927), the possible optimality of differential taxes and subsidies has been examined. In the last half century, however, much work has instead followed the seminal contribution of Atkinson and Stiglitz (1976) by linking this subject to the optimal income tax framework. There are also extensions regarding expenditures that generate externalities (Kaplow 2012), which is a central feature of much charitable giving. Once again, it makes sense to leverage the teachings of these bodies of research to better understand optimal tax policy toward charitable giving.

The key advance in this literature is the explicit integration of differential taxation or subsidization of different forms of expenditure with the Mirrlees (1971) optimal income tax framework. As one traces through each of the foregoing steps, which this investigation will do (in a nontechnical manner), one should expect that most effects that arise along this path, and the analysis thereof, will prove to be relevant, and indeed they are.

But this exploration will do more than identify many pieces of the puzzle, some of which are new or have different shapes from the familiar ones. The aim is to create a synthesis that enables analysts to focus on the most distinctive features of charitable giving, but to understand them in the context of the general optimal income taxation framework. This reformulation will redirect policy analysis in important ways and, relatedly, help to identify the most relevant topics requiring further research.

One important lesson from this project that departs from conventional wisdom is the ability to separate the distributive effects of the subsidization of charitable giving on donors from the effects of giving as such, notably, the ultimate effects on charitable beneficiaries. The core reason is that one can adjust the overall income tax and transfer system to neutralize the distributive effects on donors of more, or less, generous charitable provisions. This possibility implies that optimal overall policy toward philanthropy is largely independent of these distributive concerns. By contrast, distributive effects regarding beneficiaries are relevent.

Another, analytically related lesson involves the separation of the direct revenue costs of the subsidization of charitable giving from the effects of charitable giving as such. This result suggests a wholesale reconsideration of the implications of prior empirical work (starting with Boskin and Feldstein 1977) that studies the elasticity of charitable giving with respect to the net-of-income-tax cost. A common benchmark is that the deduction for charitable contributions is efficient if and only if this elasticity exceeds one. Yet, when we embed the deduction in the optimal income tax framework, the result for optimal treatment in the most basic model does not

[2] Much labor income is saved, but those savings are ultimately spent or bequeathed, and much charitable giving is from savings or through bequests. The analysis here collapses these dynamics into a static framework, as in Mirrlees (1971) and much subsequent research on optimal income taxation (Kaplow forthcoming).

even have this elasticity in the formula. In modern parlance, it does not merely fail to be a sufficient statistic for welfare analysis; it is not even a relevant one.

Embedding the policy question regarding the optimal subsidization of charitable giving in an optimal income tax framework delivers additional lessons as well. Although this analysis does not encompass all policy-relevant considerations, it does offer a substantial complement to our existing understanding in this important realm. This article mainly develops the above framework, beginning with just a simple income tax and transfer schedule and then building, step by step, to the analysis of charitable giving. This methodological approach to the analysis of a wide range of government policies features centrally in my book (Kaplow 2008) and survey (Kaplow forthcoming), which develop and apply the integrated framework used here, but prior work does not systematically apply the framework to the optimal tax treatment of charitable giving.

Section II informally introduces the optimal income taxation framework associated with Mirrlees (1971). The tax schedule in this model is properly understood to be quite comprehensive, including all aspects of the tax and transfer system. It will be explained how this basic understanding already suggests some key findings that will emerge.

Section III, building on Atkinson and Stiglitz (1976), extends the income tax and transfer system to incorporate differential taxation, including subsidization, of different types of expenditures. Although classically viewed as guiding the design of preferential rates under value-added taxes and similar fiscal instruments, it directly applies to preferential income tax provisions commonly referred to as tax expenditures (Kaplow 2017), including that for charitable giving. Using the distribution-neutral approach to policy analysis developed in Kaplow (1996, 2004, 2008) and elsewhere, it is explained how both the revenue and distributive effects usually associated with tax expenditures, including the deduction for charitable contributions, can be neutralized and thus rendered irrelevant to the policy analysis thereof. Specifically, it is possible to combine a reform of tax provisions for charitable giving with a distributively offsetting adjustment to the income tax and transfer system such that individuals at all levels of income are made better off whenever the distinctive effects on charitable giving as such are to increase efficiency in a conventional sense.

Section IV examines charitable giving as a distinctive form of expenditure, specifically, as generating a positive externality that, in this section, is taken to be some given magnitude per dollar contributed. Building on the framework from section III, it is explained that the optimal subsidy simply equals the magnitude of that externality. Importantly, in a benchmark case, this result holds without regard to the mechanical revenue or distributive effects of any subsidy for charitable giving, the value of the elasticity of charitable giving with respect to the net-of-tax cost, or the magnitude of distortionary effects of the income tax and transfer system on labor effort. Only the distinctive effects of charitable giving—that is, in contrast to donors'

expenditures on their own consumption—are relevant. We are assessing, for example, what is the optimal *relative* treatment of a rich person's choice to give a million dollars to charity rather than spending it on a yacht—keeping in mind that the distribution-offsetting income tax adjustment will keep tax burdens on the rich the same regardless of whether the former expenditure choice is subsidized relative to the latter one.

Section V examines more specifically the several types of externalities associated with charitable giving, drawing on prior literature (Kaplow 1995, 1998, 2001, 2008) that explores the externalities associated with private voluntary transfers, such as from parents to children. The associated externalities in the two contexts often correspond but the underlying determinants and resulting magnitudes may differ greatly. First, charitable giving generates positive externalities, the most familiar (such as from the funding of medical research) being akin to the benefits associated with the provision of public goods. But the central positive externality is much broader: gifts generate utility both to the donors who make the contributions and also to the ultimate beneficiaries, and this is true even when there is a single beneficiary that received a private good. Second, some charitable giving involves a form of voluntary redistribution, and any resulting improvement in the distribution of income among beneficiaries is socially relevant. Finally, charitable giving typically has effects on labor effort that result in fiscal externalities, which often are negative. Most obviously, the receipt of charity tends to diminish beneficiaries' labor effort just as the receipt of transfer payments does, due to both income effects and marginal taxation from phaseouts, which are implicit in means-tested charitable support for the poor. Taken together, there are many factors that bear on the determination of the net externality from different types of charitable giving, and the overall effect is likely to vary substantially across contexts. This subject would benefit from further research.

Section VI briefly addresses some additional considerations that bear on the optimal tax treatment of charitable giving. One is to link the diversity of net externalities, which by itself favors government fine-tuning of the magnitude of any subsidy, with the important but often omitted value from the decentralization of charitable decisionmaking, which may be sacrificed when government policy is more selective and thus more directive. Also noted is the comparative efficiency of the philanthropic sector versus the private sector or the government. All sectors raise qualitatively similar concerns about possible inefficiencies in the solicitation of support and the accountability and efficiency of operations, although the determinants and relevant magnitudes may differ greatly across the sectors, depending on the context.

Section VII concludes. In addition to this article's important lessons, we should keep in mind that the optimal taxation framework is complementary to alternative approaches, emphasizing and recasting some considerations but omitting others. The framework developed here identifies new questions and guides some of the work necessary to answer them.

II. Income Tax and Transfer System: Revenue and Redistribution

Much of the policy debate about the income tax treatment of charitable giving focuses on the revenue or distributive effects of existing and contemplated income tax provisions. Both revenue and distributive effects—as well as the incentive effects of taxation that is employed to achieve revenue and distributive goals—are analyzed by public economists using the methodology of optimal income taxation. Accordingly, this will be our starting point for building the requisite framework for the analysis of income taxation and charitable giving.

Mirrlees (1971) launched the modern study of optimal income taxation, a field that has developed and broadened its reach over the last half century. Most important for the analysis of the income tax treatment of charitable giving, extensions now embed all manner of fiscal instruments (Kaplow 2008, forthcoming), including tax expenditures (Kaplow 2017). But before delving into these extensions and adapting them to the present subject, it is important to begin with the foundational model.

The problem statement addresses how to design an income tax and transfer schedule in a manner that maximizes social welfare, taken to be a positive function of all individuals' utilities, with the aggregation reflecting an externally specified social judgment regarding distribution. This maximization is subject to a government revenue requirement (to fund public goods), the economy's technology and resource constraints, and individuals' optimizing behavior. Regarding the latter, account is taken of how the tax system affects individuals' incentives to supply the labor effort that generates the income that is subject to taxation or determines the magnitude of the income transfers to be provided.

This income tax and transfer schedule can be represented as a function $T(y)$ that indicates how much tax is paid by an individual who earns income y. Importantly, $T(y)$ can be negative, notably, for those who earn little or no income, reflecting that they receive net transfers from the government. This income tax and transfer function is depicted in Figure 1.

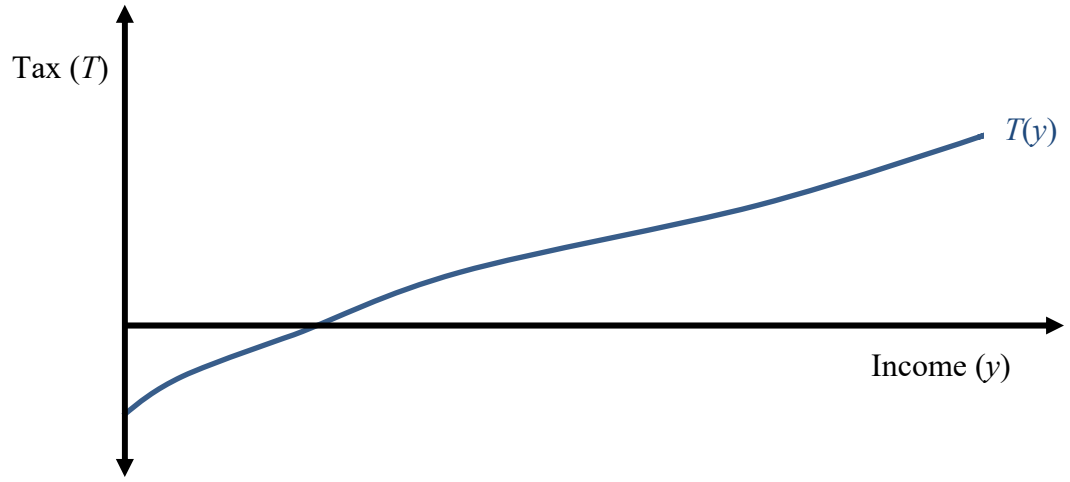


Figure 1. Income Tax and Transfer Schedule

As Figure 1 is drawn, individuals who earn no income receive a positive transfer, the magnitude of which is indicated by the (negative) vertical intercept. As income rises from that point, there is some mix of positive marginal taxation and (equivalently) the phasing out of transfer payments, generating a positive slope. The $T(y)$ curve crosses the horizontal axis at a break-even point, where any taxes owed and transfers received net to zero. From there, the $T(y)$ curve continues to have a positive slope, which reflects the marginal tax rate at any level of income, y. The curve $T(y)$ becomes steeper if marginal income tax rates are rising and flatter if they are falling. The $T(y)$ schedule in Figure 1 is purely for illustrative purposes; nothing is suggested regarding whether it is the optimal schedule or, if it is not, how the optimal schedule differs.

Indeed, this article, following an important line of research, will not address how the optimal income tax is determined. It will nevertheless use the core framework to illuminate the present subject. As we will see, a complete analysis of the optimal income tax treatment of charitable giving is possible without having to address redistribution. Hence, all the points made in this article are independent of whether the current income tax is optimal; whether, if it is not, the current system redistributes too little or too much; what social welfare function is chosen; or how strong are the disincentive effects of taxation. Accordingly, the analysis is simpler and the results are more robust than one might have thought possible.

Before proceeding, it is important to highlight several features of the income tax and transfer system reflected in the function $T(y)$ and illustrated in Figure 1. First, as previously noted, it is a tax *and transfer* system. Thus, it includes provisions like the EITC and refundable child credits but also other income transfers such as TANF, SNAP, and housing vouchers.[3] It

[3] Anticipating the discussion to follow regarding the dynamic interpretation of this framework, from a lifecycle perspective $T(y)$ should also be taken to incorporate social insurance taxes and receipts.

may also best be interpreted to reflect some other government expenditures, such as on public education.[4] Regarding taxes, it is also comprehensive; the so-called income tax here includes sales and value-added taxes (the amounts paid as a function of income) and much more.[5]

Second, as will be emphasized throughout this article, $T(y)$ embodies all aspects of these tax and transfer programs. Of particular importance for the income tax itself, $T(y)$ reflects deductions and credits received at each level of income. For example, if a median earner pays tax of 20% of taxable income, but that taxable income reflects deductions worth 5% of total earnings, $T(y)$ would reflect the effective tax rate of 19% on earnings (because deductions of 5% of earnings, when subject to a 20% tax rate, results in a tax savings of 1% of earnings).[6]

Two important implications that will be featured below are apparent. One is that both the revenue and distributive effects of deductions and credits are incorporated when using this capacious framework.

The other is that both the revenue and distributive effects of deductions and credits can in principle be offset in a straightforward manner by adjusting the nominal tax schedule. In our example, if one wished the effective tax rate on median earners to be restored to 20% but to retain the posited deductions, one could raise the nominal tax rate to (slightly above) 21%. And likewise at any other level of income. That is, whatever the desired effective tax rate and whatever provisions for deductions and credits are included, one can adjust the nominal tax rate to generate that effective tax rate. Hence, for any deductions or credits one wishes to have, one could adjust the nominal rate schedule to produce an effective tax rate schedule equivalent to the schedule without the deductions or credits. If that is done, the deductions and credits would have no direct effect on either revenue or distribution. Regarding tax expenditure analysis broadly, this point is a central theme in Kaplow (2017).

To round out our understanding of the $T(y)$ schedule, consider some additional features that are important to appreciate but will not be the focus of the analysis in this paper.[7] The Mirrlees tax and transfer schedule and analysis are presented as if in a static framework, wherein lifetimes are implicitly collapsed to a single period. In fact, individuals' lives extend over many years, from childhood (when many pay no taxes and receive no transfers, except via their

[4] How broader types of government spending are properly incorporated raises subtle questions that have received only modest attention in the literature (e.g., Kaplow 2006b; 2008, ch. 8).

[5] For example, corporate income taxes would be included as a form of capital income taxation, which can more readily be made explicit in dynamic formulations, mentioned below.

[6] For ease of exposition, the illustration does not speak specifically in terms of marginal or average tax rates. With a linear income tax having a zero intercept, these would be the same. With a nonlinear tax, the discussion should be taken to refer to the median earner's average tax rate. If one performed the same analysis for individuals at all income levels, one would know average tax rates as a function of income, which would directly imply the marginal rate schedule, both of which can be determined from the pertinent $T(y)$. (The marginal tax rate is the derivative, $T'(y)$, and the average tax rate is $T(y)/y$.)

[7] Many other traits could be noted but will be set to the side here. For analysis of many of these, see, for example, Salanié (2011), Tuomola (2016), and Kaplow (2008, forthcoming).

parents), to working years, to retirement. There is borrowing, saving, and more. Much research addresses these and other dynamic considerations.[8] One immediate implication—often forgotten, leading to significant errors—is that the $T(y)$ schedule reflects lifetime earnings and taxes (in some complex fashion). Hence, $T(y)$ does *not* correspond to the annual income tax rules that appear in the Internal Revenue Code, underlie most distribution tables, and are used in many policy simulations. For present purposes, however, these considerations can largely be set to the side. The present analysis and main results here readily extend in rough terms to the dynamic setting.

The $T(y)$ schedule is usually presented as a single schedule. However, most tax and transfer systems use different schedules for different family configurations, notably, whether the family includes one or two adults and whether one or more children are taken to be part of a family unit. Accordingly, a full analysis would consider all these separate schedules, and the optimal income tax and transfer problem involves optimizing each largely separately, linking the optimization subproblems by a common aggregate revenue requirement and thus a common shadow value of government funds (see, e.g., Kaplow forthcoming). The analysis here will follow convention and refer to only a single $T(y)$ schedule; in this instance, the pertinent extension is straightforward.

III. Income Tax and Transfer System with Commodity Taxation

The framework presented in section II provides the means to analyze the revenue, distributive, and incentive effects of the income tax and transfer system. In order to analyze the income tax treatment of charitable giving, our next step is to follow the emerging approach of appending commodity taxation to the income tax and transfer system. It is long familiar that tax expenditures are often labelled as such because they can be understood as analogous or even equivalent to direct expenditure programs. Many tax expenditures are akin to subsidies on particular forms of spending by individuals, here, charitable giving. In this section, we will use this expanded framework to address how the overall tax and transfer system should optimally treat charitable giving under the simplifying (and, as we will explore, incorrect) assumption that charitable giving is just another form of consumption expenditure. The next two sections will then introduce the distinctive features of charitable giving, which will enable us to assess what income tax treatment is optimal.

[8] Among the subjects considered are savings and capital taxation, social insurance taxes and benefits, uncertainty, current budget deficits that must be funded by future tax payments (a subject mostly addressed by macroeconomists), and bequests—which take us beyond a single lifecycle. Only the latter is addressed below.

A. Analysis

Atkinson and Stiglitz (1976) initiated the modern approach to the analysis of optimal differentiation of commodity taxation when there is also an income tax, generating results and corresponding intuitions that departed importantly from the previous framework associated with Ramsey (1927).[9] Unfortunately, their breakthrough did not substantially influence most applied work in public economics for a few decades, in significant part because their derivations assumed that the income tax was optimally set and likewise focused on the characterization of optimal commodity taxes (in the neighborhood of the optimum) rather than on the assessment of reforms. Relatedly, the complexity of optimal income tax analysis and the need to make controversial assumptions about behavior and distributive objectives limited researchers' inclination to relate their analyses of more specific questions to this broader framework.

Beginning in the 1990s, this situation began to change, although many of the key insights are still not systematically recognized in many important settings. The central point of departure for this modern work is a method developed in Kaplow (1996, 2004, 2006a, 2008, forthcoming) and a growing body of additional work that spans many applications. This method neither requires any assumptions about whether the income tax system or any other policy instruments are set optimally nor demands the use of foreboding methods associated with determination of the optimal income tax schedule. This newer approach examines *distribution-neutral* policy reform packages.[10]

To begin, following Atkinson and Stiglitz (1976), we will assume that the government has available an income tax and transfer system, $T(y)$, but it is no longer (implicitly) constrained to tax income the same regardless of how individuals spend it. The government's available policy instruments now include taxes or subsidies on different types of expenditures (on what are conventionally referred to as different "commodities") that can be imposed at different rates. It is helpful to think of there existing, in addition to the tax and transfer system, a broad sales tax or value-added tax, and the question is whether it should be imposed at a uniform rate or instead at different rates on different commodities.[11] For example, we might contemplate taxing luxuries at a higher rate and necessities at a lower rate to advance distributive objectives.

[9] For elaboration on the distinction with Ramsey taxation, see Atkinson and Stiglitz (1976), Stiglitz (1987), and Kaplow (2008, ch. 6.D).

[10] The sense in which the reforms are distribution neutral will emerge in the course of the analysis. Note that, although there is often ambiguity regarding how different distributions should be compared, the full version of the policy experiment presented below holds constant the utility of individuals at all levels of pre-reform income. Hence, the relevant sense of distribution neutrality is unambiguous and strong because the pre- and post-reform distributions of utility are identical.

[11] Note that one can understand a uniform (and comprehensive) commodity tax system as equivalent to an upward shift in the income tax and transfer schedule, $T(y)$.

Atkinson and Stiglitz (1976) demonstrated that (under an assumption regarding how labor effort enters individuals' utility functions that will be elaborated below) the optimal commodity tax system is uniform. Hence, in our example it is not optimal to tax luxuries more or necessities less, regardless of the importance attached to income redistribution. The core intuition is that using differential commodity taxation to redistribute income distorts labor effort just as much as does using the income tax and transfer system directly, but differential taxation also distorts consumption choices at any given level of income and hence is inferior. It turns out that this intuition extends to a wide range of policy instruments and to settings in which neither the income tax nor those instruments have been set optimally. The main steps in the distribution-neutral approach that establishes these conclusions are sketched briefly here because understanding them builds intuition for the application to charitable giving that will follow in sections IV and V.

Assume that an individual who earns income y spends the after-income-tax income on any of n commodities, with the amount spent on commodity i denoted as x^i. The price of commodity i is p^i and each unit of x^i that an individual purchases is subject to an ad valorem tax or subsidy of τ^i, so the effective price of each unit of x^i is $p^i(1+\tau^i)$. (A subsidy is indicated by a negative tax rate, i.e., $\tau^i < 0$.) Individuals spend all their after-income-tax income on these commodities, and their associated budget constraint is:[12]

$$\sum_{i=1}^{n} p^i(1+\tau^i)x^i = y - T(y).$$

For a uniform commodity tax system, we have $\tau^i = \tau$ for all i, where τ is the common rate of tax.

We can now more directly address the question whether uniform commodity taxation is optimal or, instead, some differentiation is helpful and, if so, what such differentiation should depend on. To prove that uniform taxation is indeed optimal, we will begin with any nonuniform commodity tax system and show how one can design a tax reform that moves to uniform taxation in a manner that makes individuals at every level of income better off. That is, this reform will generate a strict Pareto improvement.

Our contemplated reform will be constructed such that the policy package as a whole is *distribution neutral*. To create this package, we will incorporate a *distributively offsetting*

[12] One could also express the commodity taxes as per unit (excise taxes) rather than as percentages of prices, and the analysis would be the same. In the case of charitable giving, where one "unit" of giving is conventionally understood as the contribution of one dollar, the translation between the two is straightforward, with a subsidy (income tax rebate) of, say, 30 cents per dollar expenditure being the same as a subsidy (income tax rebate) of 30% of dollar expenditures.

adjustment to the income tax and transfer system. (As suggested above, we will not make any assumption about the initial income tax and transfer schedule; in particular, we will not assume that it is optimal.)

The first step in our construction will be to remove all differentiation in the commodity tax system. For ease of exposition, we will consider the commodity tax reform that simply eliminates commodity taxation, that is, it sets $\tau^i = 0$ for all i. At this step, assume for the moment that individuals do not adjust their consumption bundles; nor do they change their level of labor effort and hence their earnings. This reform, so far, reduces total tax revenue at every level of income by the amount of commodity taxes previously paid by individuals at each level of income.[13] Next, raise the level of income taxation (or, as appropriate, reduce the level of income transfers), $T(y)$, so that total taxes paid are restored to their prior (pre-reform) magnitude at every level of income y.

Before proceeding, it is helpful to summarize where we are. Every individual pays the same in total taxes, consumes the same commodities, and expends the same labor effort as before; hence, everyone has the same utility as they had initially. An immediate consequence is that distribution is entirely unchanged. Furthermore, total tax revenue collected by the government is also the same, indeed, by construction.

Let us now relax the assumption that individuals continue to consume the same consumption bundles (but continue, for a further moment, to assume that labor effort is unchanged). Because price ratios have now changed (we started with *non*uniform commodity taxes and subsidies, and now they are uniform), all individuals will accordingly shift their consumption. Roughly, they will tend to consume more of those goods for which taxes have fallen and less of those where taxes have risen (or subsidies have been reduced). By revealed preference, these changes in consumption allocations imply that everyone—at every income level—enjoys higher utility. Note further that these consumption reallocations have no effect on commodity tax revenue because our experiment has set all commodity taxes and subsidies equal to zero.[14] At this point, therefore, we have a strict Pareto improvement: individuals at *all* income levels are strictly better off (and government revenue is unchanged).

The foregoing provides much of the reasoning underlying the conclusion that, in the present formulation, uniform commodity taxation is optimal. The analysis thus far, however, is incomplete because we have not considered how individuals might adjust their labor effort. Such might occur because there is now a different (higher) utility level associated with each level

[13] If the initial commodity tax system involved substantial subsidies, elimination might raise total tax revenue. The same analysis would apply, mutatis mutandis.

[14] It can be shown that none of the results depend on the simplifying assumption that the commodity tax reform involves setting all tax and subsidy rates equal to zero. Note that, as long as tax rates are uniform, consumption reallocations have no effect on commodity tax revenue.

of earnings. Of course, any such adjustments would further raise individuals' utilities (by revealed preference), but there would in general be effects on government revenue. For example, if some individuals choose to exert less labor effort, income tax revenues would fall, and the reform would no longer be revenue neutral.

Nevertheless, further adjustments to this contemplated policy experiment preserve these conclusions if one assumes that labor effort enters individuals' utility functions in a manner that is weakly separable from individuals' utility from commodities (as a group).[15] The meaning and intuition behind this assumption will be elaborated below with a concrete example. But first, let us see how this assumption can be used to complete the analysis that demonstrates the ability to achieve a strict Pareto improvement.

We left off with individuals at all income levels adjusting their consumption bundles (but not yet their labor effort), achieving higher utility while paying the same in total taxes to the government. We can now augment our initially posited income tax adjustment (which raised the income tax at each income level to offset the loss in commodity tax revenue) by making a further modification. Specifically, raise the income tax at every income level somewhat more, specifically, by just enough to offset the utility gain that individuals enjoy from adjusting their commodity bundles. We can check our progress once again: now, everyone (at every income level) has the same utility as before the reform (rather than more), and the government has more revenue than it had before (because it raises more revenue from individuals at all income levels).

Moreover, with this further modification, individuals at every income level will choose the same labor effort as they did before, so the result that the government will have a budget surplus continues to hold. The reason is that this further income tax schedule adjustment was constructed to have the following implication: for any individual, any choice of labor effort generates the same *utility* as that choice of labor effort generated previously. Hence, whatever level of labor effort maximized any individual's utility before the reform continues to maximize that individual's utility after the reform.[16]

Hence, we can now confirm our tentative conclusions regarding this reform package that features the now-more-complete offsetting adjustment to the income tax and transfer system: individuals at all levels of income have the same utility as before the reform, and the government

[15] The analysis to follow further assumes that individuals have the same utility (or, technically, subutility) as a function of commodities. If not, the conclusion that individuals at all income levels gain is roughly true on average at each income level. That sort of characterization is familiar from the use of distribution tables that do not go deeper to ask whether otherwise identical individuals who earn the same income also achieve the same utility as each other or might not due to differences in their preferences. This point is relevant below when considering charitable giving more specifically, for individuals' preferences about whether, how much, and to whom to make charitable contributions vary substantially. For a more comprehensive discussion of qualifications, see Kaplow (2008, ch. 6C).

[16] For readers wishing further elaboration of this point, see Kaplow (2006a; 2008, ch. 6).

has a budget surplus. As a final step, we can now rebate that surplus, say, pro rata, so as to make individuals at all income levels strictly better off. That is, the earlier claim that the result of an efficiency-improving reform is a Pareto improvement holds when one considers effects on labor effort as well.

Before concluding this discussion, let us revisit the assumption that labor effort is weakly separable in individuals' utility functions. To appreciate the role of this assumption, consider a simple counterexample: expenditures on video programming, whether movies, television series, sports, or otherwise. It is reasonable to assume that this form of consumption tends to be a leisure complement, that is, subscribing to more video content will increase the marginal utility of leisure. That, in turn, reduces the incentive to supply labor effort, which has the consequence of reducing income tax revenues. Because of this effect, it is optimal to tax video content at a higher rate than that applied to other forms of consumption. Although there is some cost in distorting individuals' consumption, when one starts from uniformity that efficiency cost is second order whereas the boost in labor effort, which is undersupplied in the presence of income taxation (and transfer program phaseouts), generates a first-order gain.[17]

This qualification nicely reinforces the core intuition behind the original uniformity result. That result arises because nonuniformity tends to distort consumption choices, which is inefficient, without helping the overall fiscal system better achieve revenue and distributive objectives. Here, we can see that when distorting consumption can help boost labor effort, some such distortion will be optimal. For charitable giving in particular, this qualification might favor more, or less, generous treatment than is otherwise optimal. (So far, no differential treatment is optimal because we are assuming in this section that charitable expenditures are just another form of consumption choice.) For example, when individuals give more of their earnings to charity, they have less disposable income to consume on themselves, which would tend to reduce the marginal value of leisure, thereby boosting labor effort. If that was the general tendency, then this factor would favor more generous treatment of charitable giving, all else equal. Whether this is true and how large is the effect, if any, are not questions that have been subject to significant empirical study.

B. Further Implications Regarding Revenue and Redistribution

Consider how the foregoing analysis of the income tax and transfer system combined with commodity taxation reinforces and extends some of the results from section II on the income tax. Setting aside the just-noted qualification about possible interaction with the marginal utility of leisure, we have seen that there is a strong case for uniform treatment of charitable giving with all other forms of consumption, that is, when charitable giving is assumed

[17] The insight that it tends to be optimal to tax leisure complements (substitutes) at a higher (lower) rate is due to Corlett and Hague (1953).

to be no different from expenditures on food, housing, clothing, or most anything else. This preliminary result—even though it will be modified below—already carries strong implications for many conventional policy arguments regarding charitable giving.

First, revenue as such is irrelevant. We considered reforms to differential commodity taxation that were coupled with income tax adjustments that, in our first step, entailed no changes whatsoever in total tax revenue collected by the government. As our analysis proceeded, we saw that there were efficiency gains from uniform treatment, and that these gains could be absorbed by a further modification of the income tax and transfer system. In short, efficiency effects matter—including for revenue—but *not* the *mechanical effects* of how generous, miserly, or confiscatory is the treatment provided. When using the contemplated offsetting tax adjustment, we can appreciate that any mechanical revenue effects of any reform of the treatment of a particular type of expenditure will be erased and hence cannot affect the policy analysis of the reform package.

This simple conclusion further indicates that the *elasticity* of a particular form of expenditure with respect to its tax-inclusive price, a traditional focus of the so-called efficiency of the charitable deduction, is entirely irrelevant in our base case. The reader will note that the elasticity of expenditures on any of the commodities subject to a commodity tax reform was not even mentioned—which reflects its irrelevance. To appreciate the breadth of this implication, Kaplow (2006a) uses the distribution-neutral approach to extend Atkinson and Stiglitz (1976) not only to settings in which the income tax is not optimal, but also to assess all manner of commodity tax reforms: marginal or discrete changes, reforms that move all the way to the optimum, reforms that move in the direction of the optimum, and, indeed, reforms of any type whatsoever. In all cases, effects on the *efficiency of consumption choices* determine whether it is possible to implement a Pareto-improving distribution-neutral package or the opposite. (Distribution-neutral reforms that reduce efficiency make individuals at all income levels worse off.) These results (which assume weak separability, as above) hold for general utility functions of different types of consumption and hence regardless of the elasticity of any particular form of consumption. Hence, the extent to which the Atkinson and Stiglitz (1976) framework upends results associated with Ramsey (1927), such as the inverse-elasticity rule, is great.[18] We will return to this efficiency point in section IV, on externalities associated with charitable giving.

Second, distribution is irrelevant. The reason for this conclusion is likewise straightforward: when analyzing distribution-neutral reform packages, distribution is held constant. Hence, reforms that improve the efficiency of resource allocation can be implemented

[18] The *magnitude* of the inefficiency from differential taxation depends on the magnitude of the elasticity of the differentially taxed commodity, but this too differs qualitatively from the traditional Ramsey results. There, high (low) elasticity commodities should be taxed below (above) the average commodity tax rate. Here, all commodities should be taxed at a uniform rate; the magnitude of the inefficiency from failing to do so rises with the elasticity, and this is so regardless of the *direction* of the deviation from uniformity. That is, taxing highly elastic goods both too much and too little is worse than making the corresponding deviations with low-elasticity goods.

so as to make everyone better off. Recall that our explanation of differential commodity taxation was motivated in part by the seemingly plausible notion that stiffer taxation of luxuries and more generous treatment of necessities would be beneficial on distributive grounds. This result is false, however, because any degree of redistribution thereby achieved can be accomplished more efficiently—without distorting the consumption choices of the rich or the poor—through the income tax and transfer system. Put another way, for any level of tax imposed on the rich, the poor can receive even more—specifically, they can achieve a strictly higher level of utility—in a system that does *not* tax luxuries at a higher rate and necessities at a lower rate. The more a society cares about the well-being of its poorest members, the more it can advance its objectives by eschewing differential commodity taxation, confining redistributive efforts to the income tax and transfer system.

A similar lesson carries over to the income tax treatment of charitable giving. Specifically, one generally can achieve higher social welfare, and make individuals at every income level better off, by designing the most efficient charitable giving provisions while adjusting the income tax and transfer system's tax (and phaseout) schedule so that the package as a whole is distribution neutral. For example, switching from a charitable deduction to a credit or making income tax benefits available to all rather than just to itemizers may well be a superior means to encourage charitable giving, but whether and the extent to which this is true is independent of the distributive incidence of the tax benefits conferred to donors at different income levels.

The distribution-neutral approach and its implications for policy analysis can be further illuminated by using the present framework to aid in the assessment of actual reform packages that are not in fact distribution neutral, as is often the case. For this purpose, it is helpful to undertake a simple thought experiment that employs a two-step decomposition of non-distribution-neutral reforms. This formulation is developed and discussed in Kaplow (2004, 2008, 2020, forthcoming).

Consider some policy change, which we will denote ΔP. It could be of any number of policies, but we will speak in terms of some reform to the income tax treatment of charitable giving. And package it with some adjustment to the income tax and transfer system (call it ΔT^P) that, we will assume, achieves revenue neutrality but not distribution neutrality.[19]

For any such reform, we can imagine decomposing it into two steps: First, the policy change is hypothetically assumed to be implemented using a distribution-neutral adjustment to the income tax and transfer schedule (ΔT^{DN}), as developed in section III.A. Second, an instant

[19] Revenue neutrality is a commonly employed assumption or constraint on policy analysis for obvious reasons. If one wished to contemplate packages that raised or lowered tax revenues, one could employ a further decomposition that isolates that piece, as presented in Kaplow (2017), or treat, say, a higher budget deficit as involving a revenue cost that is financed by future taxes, which would make the present value of the entire package revenue neutral.

later, a further reform is implemented that modifies this distribution-neutral (distributively offsetting) tax adjustment ΔT^{DN} to the income tax and transfer system into whatever is the actual tax adjustment ΔT^{P} that is to be implemented along with the policy change ΔP. In other words, our actual reform package, $\Delta P + \Delta T^{P}$, is implemented in two steps, as follows:

$$\Delta P + \Delta T^{P} = \underbrace{(\Delta P + \Delta T^{DN})}_{Step\ 1} + \underbrace{(\Delta T^{P} - \Delta T^{DN})}_{Step\ 2}.$$

To see how we would then analyze the non-distribution-neutral policy package, $\Delta P + \Delta T^{P}$, we can restate this expression verbally:

Step 1. Combine the policy change in question (sans finance) with a distributively offsetting adjustment to the income tax and transfer schedule.
- Efficiency assessment.

Step 2. Transform the foregoing (hypothetical) income tax and transfer schedule into the actually proposed income tax and transfer schedule.
- Redistribution assessment.

This simple two-step decomposition has remarkably useful properties. Step 1 can be assessed *entirely on efficiency grounds* because, recall, the distributively offsetting adjustment results in individuals at all income levels being better off if and only if the reform improves efficiency in the sense of better resource allocation.[20] By contrast, Step 2 is a *purely redistributive adjustment* to the income tax and transfer system and hence raises the familiar set of contentious considerations that go into determining whether it involves a social improvement.[21] In our previous analysis, Step 1 was the entire reform, so the analysis associated with Step 2 was unnecessary.

Some additional virtues of this two-step decomposition can be noted briefly. First, this decomposition is useful conceptually, to clarify analysis as well as to facilitate the communication of analysis to policy makers. The analyst and the policy maker may not share distributive objectives or assumptions about the distortionary cost of redistributive taxation. When analysts present a single bottom line regarding a reform package that is not distribution neutral, different effects are comingled and accordingly may be confused. It is thus more difficult for policy analysists to use the results. It is challenging (even for expert analysts) to untangle why two studies of the same problem may come to different conclusions. For example, is one study that is more favorable than is another study to some particular reform of charitable giving reaching that conclusion because of a more positive assessment with regard to the effects

[20] A complementary way to see this point is to observe that the adjustment to the income tax and transfer schedule described in section III.A that holds individuals at all levels of income to the same level of utility necessarily adjusts their income tax payments by the corresponding compensating variations. Hence the budget surplus (or deficit) is given by the integral of all individuals' compensating variations associated with the reform, a standard efficiency measure.

[21] A subtlety that is ignored here (and in most analyses), and which is second order for small changes, is that the stand-alone assessment of Step 2's redistribution in general depends on the state of the economy (and hence whether or not Step 1 is implemented). For a given social welfare function, somewhat more or less redistribution may be optimal if the efficiency of the economy (size of the pie) is altered.

on charitable giving or a more positive assessment of the embodied change in income distribution?

A second, related point is that policy analysts often do not know what redistributive changes are actually feasible or would be adopted in a given political climate, and even when their guesses are roughly correct, any study that entangles Step 1 and Step 2 may become obscure or obsolete when the political winds change. That is, if whatever choice an analyst makes regarding how the overall package may change the degree of redistribution, that choice may not currently or subsequently match the policy inclinations of the pertinent policy makers. Indeed, many analyses not only fail to present distribution-neutral analysis but also do not clearly explain what redistribution is implicit in the reform package that they are analyzing, with further undermines the usefulness of the analysis to policy makers. Note that these features also inhibit specialization by policy analysts, who otherwise must undertake complex and contentious analysis of redistributive effects and make judgments about political economy rather than focusing their efforts, for example, on the policy-relevant effects on charitable giving as such.[22]

Finally, the two-step decomposition can help policy makers design reform packages that will be politically successful. For example, if some reform is broadly agreed to be efficient but is regarded by some to be disadvantageous because of its distributive effects, severing Step 2 may enable enactment of the component that most agree would be beneficial. That is, the disfavored distributive effects can be removed from the policy package. Likewise, if the substantive policy reform is detrimental but garners support due to distributive effects that are viewed favorably, it would be a superior policy package to confine the reform to Step 2, in this case severing Step 1.

Stepping back, we can see that the most useful analysis of a wide range of reforms, including reforms of the income tax treatment of charitable giving, are best illuminated by distribution-neutral analysis. This conclusion, when combined with the first implication that mechanical revenue effects should likewise be set to the side, establishes a simple, broad lesson: the optimal income tax treatment of charitable giving in principle depends on *the distinctive features of charitable giving*. These distinctive features have largely been set to the side in this section but will now be examined in sections IV and V.

[22] To elaborate this point about facilitating specialization by policy analysts, note that, among the infinite variety of ways to specify an adjustment to the income tax schedule that achieves revenue neutrality, the convention of selecting the one that also achieves distribution neutrality simplifies work greatly. First, one is spared the daunting political economy exercise of selecting the correct adjustment among many. Second, use of the distribution-neutral adjustment means that the analyst, whether of charitable giving, environmental externalities, or education policy, can focus on that subject, eschewing any need to conduct an analysis of redistribution that would otherwise be required. Analysts often avoid the first problem by specifying arbitrary adjustments (for example, by assuming that budget balance is achieved by a uniform shift in the income tax schedule, or by simply adjusting the schedule's intercept), but these have no connection to reality and also sacrifice the second benefit—as well as obscuring results in the manner discussed in the text. Analysts often avoid the second challenge by simply ignoring the resulting redistribution, but in that case the results can be affirmatively misleading—for example, by identifying as efficiency gains the reduction in distortion associated with an implicitly assumed reduction in redistribution, without identifying the associated distributive costs. Kaplow (2012) discusses how many of these problems appear in the literature on environmental policy.

IV. Expenditures that Generate Externalities

We now turn to distinctive features of charitable giving, that is, how such expenditures differ in important respects from all manner of expenditures on own consumption. This section assumes that charitable giving generates a positive externality of some known magnitude, and section V extends the analysis to consider the variety of externalities associated with charitable giving, which constitutes a particular form of voluntary transfers that themselves are associated with several types of externalities.

To analyze this problem, we can extend the analysis of the income tax and transfer system with commodity taxation to the case of externalities, which is similar to the case of public goods that much charitable giving might be understood to provide. Kaplow (1996, 2004, 2008). Kaplow (2012) formally builds on the framework elaborated in section III to analyze optimal differential commodity taxation when there are positive or negative externalities associated with expenditures on some commodities.

Begin with the benchmark case with no externalities (and weak separability), in which it is not optimal to employ any differential commodity taxation. Next, suppose that one form of expenditure, charitable giving (which we will associate with commodity x^c), causes a positive externality of magnitude e. In that case, it is optimal to employ a commodity subsidy of that magnitude, relative to the uniform tax (or subsidy) imposed on all other forms of expenditure. To simplify the exposition, suppose that all those other tax rates equal zero. Then, it is optimal to set $\tau^c = -e$, that is, to provide a subsidy with a magnitude equal to that of the positive externality e associated with each dollar of charitable giving.[23] This simple result—that the optimal tax or subsidy is the simple Pigouvian subsidy with no further adjustments—holds regardless of the elasticity of the expenditure in question, revenue effects, distributive effects, and so forth, just as was true with the results on commodity taxation in section III. And the reasons are essentially the same.

To understand this claim, reflect on the uniform commodity taxation result and focus for ease of exposition on the case in which all commodity taxes are set equal to zero. In that regime, the price of any good (in a simple world with perfect competition, as ordinarily assumed) equals the resource cost of producing that good. Likewise, the price ratio between any two goods

[23] Whether in the present formulation with a redistributive income tax or in much simpler models used in introductory economic analyses of externalities, one may wonder about the case in which $e > 1$. For example, the positive externality from additional basic scientific research may be very large, and the optimal subsidy would appear to exceed 100% of individuals' contributions. The resolution is that, with high subsidies that are nevertheless below 100%, individuals' giving would rise significantly. With diminishing returns, the value of e would ultimately fall below 1, an effect reinforced by the rising marginal utility of forgone ordinary consumption as more is diverted to the externality-generating type of expenditure. Hence, an actual optimal policy would not, in equilibrium, entail subsidies over 100%.

equals the ratio of the resource costs of producing those goods. Hence, individuals' utility-maximizing consumption choices are undistorted.

Now suppose that commodity x^c causes a positive externality of magnitude e. In that case, the price of that good no longer equals the social resource cost associated with its consumption because the market does not price the positive externality (indeed, this is why it is called an externality). But when a subsidy of magnitude e is provided, that private/social divergence is eliminated, so the price (net of subsidy) faced by the consumer now reflects the true net social cost of the expenditure. Likewise, the price ratio between charitable giving and any other form of expenditure (for which we are assuming there is no externality) reflects the true ratio of social resource costs associated with consumption of those two goods. Therefore, individuals' consumption allocations are undistorted. (Note that in the special case of an externality equal to zero, the optimal corrective tax or subsidy equals zero, and we are back to our result that no commodity taxes or subsidies should be employed.)

This simple result, which is much like that taught in introductory or intermediate microeconomics, was for much of the last half century no longer thought to hold. During that time, more sophisticated work on externalities explicitly took into account second-best considerations associated with the distortionary effects of income taxation and other taxes, such as on gasoline or other polluting goods. However, most of that work was undertaken in representative-individual models, did not follow the Atkinson-Stiglitz (1976) genre of analysis that fully integrated different forms of taxation, did not employ a distribution-neutral approach, and did not disentangle the effects of corrective taxation as such and implicitly assumed changes in the degree of redistribution.[24] When that analysis is modified in a manner analogous to that presented in section III, Kaplow (2012) shows that, in the benchmark case, the additional complications vanish or offset each other, restoring the simple, first-best prescription that the externality should be fully internalized, no more and no less. This result holds regardless of the revenue generated by different otherwise equivalent schemes (for example, taxes versus permits) and regardless of distributive objectives. The reasoning follows that given in section III.

Regarding charitable giving, there is a long tradition that began with Boskin and Feldstein (1977) and continues—e.g., Fack and Landais (2010), Almunia et al. (2020)—that explores the so-called efficiency of the income tax deduction for charitable giving by asking in

[24] To clarify the latter point, redistribution is moot in representative-agent models because all individuals earn the same income (and so forth). However, shifting, say, from a uniform lump-sum tax to a linear income tax, which introduces distortion of labor effort, implicitly redistributes in the sense that if one applied the same policy to a world with individuals of different earning-income ability, different distributions would result. Moreover, the motivation for examining a distortionary income tax rather than a uniform lump-sum tax, when the latter is the optimal way to raise revenue in a world with identical individuals, is precisely that the model is meant to be informative about a real world in which individuals are not identical. Hence, to analyze various forms of distortionary income taxation because distribution is relevant in the background but to omit the distributive benefits that result can be highly misleading (see Kaplow 2012).

the basic case whether the elasticity of giving with respect to the net-of-tax price is greater than one.[25] The idea is that, when this is so, the deduction generates more than a dollar of additional charitable giving for each dollar of forgone income tax revenue. However, as Boskin and Feldstein implicitly recognize in a footnote (that seems to have been unnoticed or ignored in subsequent work), this is not economists' ordinary notion of efficiency.[26] After all, tax collections are transfers between individuals and the government, not expenditures of social resources. And the foregoing analysis shows, moreover, that this aspect of so-called efficiency is not only different from the standard notion but also is entirely irrelevant to the policy's effect on the well-being of individuals.[27]

To see this point more clearly, suppose that we contemplate raising the subsidy on charitable giving from zero (or some other low level) to e, and that we institute this reform using a distributively offsetting adjustment to the income tax and transfer system. As we saw in section III, the first step in constructing this adjustment to the income tax and transfer system involves a direct, complete offset to the mechanical revenue effects of the higher subsidy. At every level of income, the income tax owed is increased (or the amount of income transfer received is decreased) by the amount of subsidy payments received by individuals at that level of income. Hence, under the distribution-neutral approach, the mechanical revenue effect is nil. If we complete the analysis along the lines employed in section III, the result of moving τ^c to its

[25] Refinements include a downward adjustment from 1.0 due to crowd-out and a further adjustment in Almunia et al. (2020) when there is a fixed cost of claiming the subsidy. Both later papers build on Saez (2004). The text here explains the correct analysis in the framework under consideration, but one may wonder how other analysts reach qualitatively different conclusions. Saez (2004) points to his use of a linear rather than a nonlinear income tax and a different separability assumption, but these subtleties are insufficient to change the fundamental nature of the problem. (Moreover, one can posit very simple cases, such as with identical individuals and completely inelastic labor supply, where these differences become entirely moot, sharpening the question of how the results can differ so much.) This reader's explanation is that, in important respects, the difference is driven by an assumption that the government sets a level of its own provision such that the total level of the public good is equal to the conventional benefit (the magnitude of the externality), which is suboptimal with warm glow utility that is welfare-relevant (as these articles and the analysis below, in section 5, assume). In addition, the conventional prescription that the optimal subsidy should equal the externality is rejected a priori because it is stated to be problematic because, under the posited (rather than derived) target, the resulting subsidy rate would be 100%. But a very high subsidy would, of course, raise contributions, specifically, above the stipulated target, and this is indeed optimal; moreover, the higher contributions reduce the endogenously optimal subsidy rate (due to diminishing returns to the public good and also rising marginal utility of other consumption), resulting in an optimal subsidy strictly below 100%. To assess this interpretation, one can remove these articles' stipulations about the character of the optimum and instead derive it using a very simple model that is consistent with the assumptions in those papers. Specifically, assume identical individuals, additively separable utility (in all of its arguments), and utility linear in ordinary consumption. In this simple setting, one can readily derive the results presented here. It should also be noted that it is never optimal for the government to supply the public good, whereas the analysis in these other articles is confined to the case in which the government optimally provides an intermediate level of the public good.

[26] Boskin and Feldstein (1977, p. 351, emphasis added) refers to whether the deduction is "fully efficient *in this sense*," without further elaboration.

[27] By analogy, the optimal Pigouvian tax on a pollutant equals the marginal harm that the pollutant causes. It is not optimally set higher or lower if the taxed activity is particularly elastic or inelastic. The whole point of using corrective taxes and subsidies is to internalize externalities so that market choices are undistorted. Whether those market choices change a little for some actors and more for other actors is irrelevant in setting the optimal corrective tax or subsidy.

optimal level of $-e$ (i.e., a subsidy of e) is to enable a strict Pareto improvement: the government raises the same total revenue, and individuals at every level of income enjoy a higher level of utility.

In the modern parlance of public economics, therefore, the elasticity of charitable giving with respect to the net-of-tax price not only fails to be a sufficient statistic for welfare analysis; it is an entirely irrelevant statistic. To further understand this conclusion, reconsider briefly the relaxation of the weak separability assumption that was used in section III's analysis to generate the result that no differentiation in commodity tax rates was optimal (and has been maintained here in showing that it is optimal to set $\tau^c = -e$). Examine for illustrative purposes the case in which charitable giving, by reducing own consumption, makes leisure less valuable at the margin and thus encourages labor effort. Then it is optimal to employ a subsidy greater than e. The sign of this correction (that the subsidy is optimally increased) is entirely independent of the elasticity of charitable giving with respect to its relative price. The magnitude of this adjustment, however, does depend on this elasticity: a larger elasticity implies a greater boost to labor supply and thus the optimality of a larger adjustment. But if charitable giving was instead a leisure complement, we would have the opposite effect. The bottom line is that, through this indirect channel, the conventionally emphasized elasticity matters, but in a qualitatively different manner from that ordinarily assumed.

Summarizing the results to this point, if charitable giving results in a positive externality of e for each dollar of charitable giving, the optimal policy in our benchmark case (with weak separability) is to set $\tau^c = -e$. This result holds, moreover, without regard to the revenue or distributive effects of the subsidy because, under distribution-neutral implementation, none of these effects arise. And, as developed in section III.B, if a reform to the tax treatment of charitable giving was not implemented with a distributively offsetting adjustment to the income tax and transfer system, the overall assessment of that policy package would depend as well on how the policy maker judged whatever was the associated change in redistribution.

Finally, it is important to reflect on what it means to set $\tau^c = -e$ in the context of designing an income tax provision for charitable giving. This optimal subsidy equals a given amount, e, per dollar of charitable giving, without regard to which taxpayer is making the contribution. In a standard income tax and transfer system, such a subsidy would correspond to a credit. Moreover, to be equally available to all—because everyone's contribution is taken to generate the same externality e—the credit would need to be refundable and available to nonitemizers. Failing to make the subsidy available to everyone means that individuals without access face $\tau^c = 0$, which is not optimal. Likewise, under this rationale, providing the subsidy in the form of a deduction means that, for all who take advantage of the provision, we have $\tau^c =$

$-T'(y)$ (where the prime denotes the derivative, so $T'(y)$ is the marginal tax rate faced by individuals earning y) rather than $\tau^c = -e$, which also is not optimal.[28]

Note further that it is not optimal to employ a floor (whether of some dollar amount or, as some have proposed, as some modest percentage of income) in order to save revenue.[29] As explored in Kaplow (1994), this form of thinking (as to both floors and itemization requirements) is generally mistaken. From the foregoing analysis, particularly the explanation of how mechanical revenue effects are irrelevant under distribution-neutral implementation, we can see that there is no revenue savings and thus no associated benefit from using a floor. If all individuals at some income level y would give more than the floor in any event, then the use of a floor is simply irrelevant because its effects are precisely offset in the construction of the offsetting adjustment to the income tax and transfer schedule. Suppose instead that all individuals at some income level y give less than the floor. Then imposing the floor, like an itemization requirement or nonrefundability for individuals who owe no income tax, simply erases their access to the optimal subsidy. In the more realistic case in which some individuals at an income level y do not give at all, some give less than the floor, and some give more than the floor, the use of the floor eliminates the optimal incentive effect for the middle group, does some within-income-level redistribution among individuals who earn y, and has no revenue effects for the usual reason.

These implications for the design of an income tax provision for charitable giving assume that there are no administrative or other considerations of any significance. As a practical matter, it may be that some floor or the use of itemization may have virtues. Such analysis, however, is not particularly distinctive to charitable giving.

V. Expenditures that Involve Giving

Section IV examines charitable giving under the assumption that it generates a simple, uniform, positive externality of e per dollar. That depiction—which is akin to regarding charitable giving as contributing to a public good that provides a uniform, positive benefit of e per dollar—captures a core part of a standard view of the social benefits of charitable contributions. The analysis thus far, however, has not explored the nature or magnitude of this

[28] This section assumes that all giving generates the same positive externality e per dollar contributed. The analysis in section V of the determinants of the magnitude of the various externalities associated with charitable giving indicates that some depend on traits of the donor (both donors' motivations and their choices of beneficiaries), so it is possible that a donor's income may serve as a proxy for the magnitude of the externality. Even so, it is not clear the extent to which this is true or even whether the typical externality associated with giving by high-income donors is larger rather than smaller than that associated with giving by low-income donors. This subject, like most explored in section V, would benefit from further research.

[29] It also is not optimal to employ a ceiling, which is currently a feature of the U.S. income tax and has commonly been employed when a limited charitable contribution deduction has been made available to nonitemizers.

externality. In this section, the subject will be explored further by building on another literature that has rarely been consulted in policy analysis of this subject: literature on voluntary transfers. After all, charitable giving is a species of giving, so it is natural to draw on the economic analysis of giving as well as on the analysis of tax policies addressed to giving. Charitable giving has most of the features of ordinary giving—say, from parents to children—although to different degrees and with some additional complications and considerations.

The analysis of all manner of policy regarding voluntary transfers as a form of consumption using the optimal income and commodity taxation was launched in Kaplow (1998; 2001; 2008, ch. 10) and has subsequently been elaborated by Farhi and Werning (2010), Kopczuk (2013), and others. Only limited effort has been made, however, to consider how this analysis might be applied specifically to charitable giving (Kaplow 2001; 2008, ch. 10). The present discussion will, for each of the relevant externalities, present the basic points as they were originally developed in the context of voluntary transfers in the family and then extend them to charitable giving.

The discussion will assume throughout that any reform of a tax or subsidy on giving (of whatever type) is implemented in a distribution-neutral manner, that is, by adjusting the income tax and transfer schedule in a distributively offsetting manner. Hence, effects on revenue and on distribution *among donors* will be nil. Accordingly, the analysis will focus on efficiency effects, just as with the simple case of positive externalities presented in section IV. The analysis will also address distributive effects *involving donees*, which are not generally rendered moot by the use of distributively offsetting adjustments to *donors'* income tax and transfer schedules.

To begin, consider the simple point that ordinary private giving is typically from a donor directly to donees, who themselves will consume the resources that they now command, thereby generating consumption utility to themselves. This will be our baseline for analyzing charitable giving, although of course much private giving involves the use of intermediaries, such as trusts that subsequently distribute assets to beneficiaries and donors' children who subsequently transfer assets to donors' grandchildren.

By contrast, charitable giving is ordinarily to organizations that are intermediaries standing between donors and ultimate beneficiaries.[30] This relationship is straightforward when the charitable organization is largely a conduit, transferring receipts from donors to beneficiaries, such as individuals in poverty or otherwise in need. It may involve intervening production or other activity, for example, when operating a homeless shelter or community health center that in turn provides goods or services to ultimate beneficiaries. Such intermediate activity may instead involve medical research that will ultimately benefit a broad group of beneficiaries, perhaps in

[30] There may also be further intermediaries standing between donors and charitable organizations, such as trusts, private foundations, and donor-advised funds, which are abstracted from here.

the distant future. Or it may fund something that is akin to a public good consumed in small part by the donors themselves and more broadly by similar (if on-average less-well-off) individuals, such as donations to one's local symphony, art museum, or religious institution. By considering the similarities and differences between this broad range of beneficiaries of charitable giving and the more typical beneficiaries of private voluntary transfers (which has been studied in more detail), we can draw lessons for optimal tax provisions for charitable giving.

The first and most obvious (although long neglected) externality associated with giving is that this form of expenditure benefits *both* the donor and donee (Kaplow 1995, 1998) and hence involves a species of positive externality.[31] Starting with the donor, basic economic analysis tells us that, by revealed preference, an individual who voluntarily transfers a dollar to a donee rather than spending that dollar on own consumption must benefit from the transfer by at least as much as the utility gain from own consumption. Put another way, when a donor has optimally allocated all disposable income across types of consumption (our goods $x^1, \ldots, x^n$), it must be that the marginal utility of the last dollar allocated to each good is equal (this value is the marginal utility of disposable income or consumption as a whole). Hence, the same must be true of the last dollar of giving, whether as a charitable contribution, x^c, or otherwise.

These dollars of giving also, of course, generate utility to donees. For any particular donee, the last dollar received is optimally allocated (like the rest of the donee's budget) among available goods and thus generates utility to the donee equal to the donee's marginal utility of disposable income or consumption as a whole. Because the transfer itself does not consume productive resources (abstracting from transaction costs), the same dollar should be understood as generating utility for both the donor and the donee.

Finally, to characterize the externality involved in voluntary transfers, observe that the donor takes into account the donor's own utility from giving but not the independent utility to the donee, so it is the recipient's utility that is the source of the positive externality. This simple point is a bit elusive and potentially confusing: Because the donor ordinarily gives to the donee precisely because the donor cares about the donee in some manner, how can it be said that the donee's utility constitutes a positive externality that the donor fails to take into account? The answer is that the donor and donee are distinct individuals (or the donee may be an organization that in turn benefits distinct individuals). Each distinct individual is taken to be socially relevant—in the parlance of welfare economics, to be counted in the social welfare function. Economists' usual social welfare function is more precisely called an *individualistic* social welfare function because it is taken to be a (positive) function of *each individual's* utility. The fact that the benefit to the donee boosts the donor's utility counts positively in the social welfare function when considering the donor as an individual. And the fact that the donee, as a distinct

[31] Kaplow (1995) elaborates important subtleties that distinguish this species of externality from more familiar ones, a more complete analysis of which is necessary to determine the optimal tax or subsidy on different types of giving.

individual, directly enjoys a higher utility counts positively with respect to that individual, who is separately included in the social welfare function.[32]

One can draw an analogy to the standard economic analysis of contributions to a public good, which are taken to boost the utility of multiple individuals.[33] Each of those increments to distinct individuals' utilities is regarded to count even though they are all generated by the same contribution. This point is particularly obvious in the limiting case of a public good that benefits two individuals, perhaps the only inhabitants of an island. When one contributes to the public good, both individuals benefit, and both of those benefits count in social welfare. And when each, if acting independently, decides how much to contribute, that level of contribution will be below the socially optimal level, so a subsidy to such giving would raise total welfare.[34]

This positive externality from charitable giving indeed makes it optimal to employ a positive subsidy. Measuring the relevant magnitude of this externality, however, is a daunting task. Much of the challenge arises because the relevant externality depends on several factors, some quite subtle, and their relative importance no doubt varies greatly across donors and charitable beneficiaries.

First, as explored in the modern literature on the optimal policy toward ordinary private transfers, the nature of the donor's motivation affects the optimal subsidy. Donors may give out of altruism or the utility from giving per se (the so-called warm glow of giving; Andreoni 1990).[35] Moreover, the later giving motivation has qualitatively different implications for the optimal subsidy depending on whether the donor's utility is a function of the gross gift or the net

[32] Some regard this assessment to involve double counting, but it is unclear who is not supposed to count. Are donors simply not members of society for purposes of welfare analysis when considering money that they voluntarily transfer? Or is it donees who are treated as outcasts with respect to the utility they enjoy from the gifts that they receive?

[33] Andreoni (2006) discusses analyses of voluntary contributions to public goods, with an emphasis on crowd-out caused by government expenditures, that follows Bergstrom, Blume, and Varian's (1986) seminal treatment and then extends it to include warm-glow giving, along the lines of Andreoni (1990).

[34] This point holds even accounting for the fact that, in our island economy, that subsidy must be financed by the two individuals, perhaps using a uniform lump-sum tax. The conclusion that the double benefit from giving tends to favor a subsidy stands in interesting contrast to the views of Simons (1938), Vickrey (1975), and others who advance policy views that seem to be grounded in arguments from the definition of "income." Specifically, because donors earn the income and are not entitled to deductions for consumption (the familiar definition of income being the sum of consumption and the change in wealth over the tax accounting period), they reason that no deduction should be provided for giving (focusing on private giving). Similarly, because donees' receipts of gifts are "income" (in the language of the Internal Revenue Code §61, "from whatever source derived"), donees should therefore be taxed. (They are not taxed in the United States because there is a specific exemption for gifts received, I.R.C. §102.) This article, by contrast, adopts a welfare-based framework for policy analysis, deeming policies to be optimal if they better maximize social welfare (and, for some of the analysis here, if they result in strict Pareto improvements, which is to say, when they benefit individuals at all levels of income).

[35] Kaplow (1995) briefly explores how this difference in motives for giving affects the optimal subsidy in a setting focused on private transfers. Further research is required in the present context for different types of giving as well as to account for government provision, much of which bears on the net externality of a donor's gift given the prevailing regime, including the subsidy rate and its effects on everyone else's giving.

gift, the latter excluding the value of the subsidy (Kaplow 1998). And, of course, some gifts may be closer to purchases—a named building being a sort of personal monument—and thus generate a much smaller positive externality than otherwise to the extent that the design is to please the donor rather than to enhance the productivity of the charitable enterprise.

Second, the number of people who benefit from specific donations varies greatly. For private giving, the benefit is primarily confined to the donor and individual donee (and often some close relatives as well). For charity, numerous other altruists may benefit from a single altruist's charitable giving.[36] More familiar and often more important, charitable giving often (but not nearly always) has a significant public good component in the more traditional sense. For example, donations that fund research may benefit many, whereas when the charity is primarily a conduit that funnels donations to individual ultimate beneficiaries, the situation is closer to that with private transfers. On the other hand, donations that benefit large numbers of individuals may produce (in expectation) very small benefits to each, and the aggregate of these benefits may in any case determine how much donors are motivated to give.

Third, all forms of voluntary giving involve a sort of voluntary redistribution.[37] This is true of private giving, where usually the donees have lower income (or wealth) than donors, although much private giving in aggregate dollars goes to donees with high incomes (or wealth), particularly when one takes into account the effect of the gifts themselves. Gifts to charities often benefit individuals who are much less well off than are the donors, but not always. Some local charities, including the arts and religious institutions, tend to have ultimate beneficiaries that are less well off than are the largest donors but may not be at substantially lower levels of income.

Unfortunately, both the conceptual work necessary to incorporate these features into a more complete yet still-tractable model and the empirical analysis that would enable the estimation of the approximate magnitude of these externalities are quite limited. Despite the size and social importance of charitable giving, this area of research is greatly underdeveloped.

Another class of externalities from giving—now, typically, negative externalities—has received even less attention, particularly with respect to charitable giving. It is familiar with private transfers that many donors (parents) worry about the effects of current or anticipated future giving on the incentives of donees (their children). More broadly, recipients of giving of

[36] This point constitutes one of many where the nature of donors' motivations matters. The utility from the warm glow of giving depends only on the donor's own giving whereas altruistic donors benefit from others' contributions as well. Hochman and Rodgers (1969) famously showed how, if all rich individuals are altruistic toward the poor, then some degree of redistribution may be Pareto optimal, the benefit to the poor constituting a public good benefiting all of the rich.

[37] Here is where we can see the relevance of the section's opening distinction between holding the distribution among donors constant (with the offsetting income tax adjustment) and distributive variations among donees, which are not offset by the posited income tax adjustment.

all types tend to reduce their labor effort due to the income (or wealth) effect.[38] For example, just as low-income recipients of government transfer payments will work less due to income effects, so too will ultimate charitable beneficiaries. And there are often substitution effects as well: analogous to transfer program phaseouts, means-tested charitable distributions tend to discourage labor effort.[39] Moreover, this consequence of charitable giving is not directly taken into account by donors, or even by donees. As is familiar, these sorts of labor supply reduction impose a negative fiscal externality: when giving reduces donees' labor effort, tax revenues fall (and expenditures from government-funded transfer programs rise in the case of low-income charitable beneficiaries). Because such effects are external to donees, they are external as well even to altruistic donors who place explicit weight on donees' well-being.[40]

This source of externality also involves some variations and subtleties. One is that the anticipation of such benefits, if and when needed, can suppress labor effort. This phenomenon is associated with Buchanan's (1975) Samaritan's dilemma. Other forms of charitable activity can have a diversity of effects. For example, advances in medical research sometimes reduce labor effort, notably, when they reduce the need for precautionary savings, but medical advances can have the opposite effect (when there are more treatments worth spending on) or may induce later retirement because of prolonged health and longevity. And some forms of giving may relax liquidity constraints, thereby encouraging risk-taking that, on an expected basis, raises government tax receipts.

Taken together, charitable giving is typically associated with several externalities that in many instances are likely to be substantial. Hence, the optimal subsidy may be large. But not always, and sometimes it may even be negative, that is, a tax (which is to say, expenditures on charity would optimally be treated less generously than expenditures on own consumption). A conjecture is that the former case is more typical, but how much so and to what degree requires further research to illuminate.

Another clear implication of the foregoing discussion is that the optimal subsidy (let us suppose) in light of these externalities may vary greatly across contexts. As we have seen, motivations of donors, activities of charitable organizations, and circumstances of their ultimate beneficiaries are all directly relevant, and each is likely to be significant in many instances. This heterogeneity raises the further policy question of whether the optimal subsidy should vary with

[38] There may also be effects on donors' labor effort. As already noted regarding weak separability, when that assumption is relaxed, increases in giving (such as may be induced by larger subsidies) may, for example, raise donors' labor effort to the extent that lower own consumption reduces the marginal utility of leisure. Another potentially important effect is that, when fewer resources remain for own consumption, the marginal utility of that consumption rises, which also would induce greater labor effort. Both effects result in positive fiscal externalities and thus, contrary to those discussed here in the text, favor larger subsidies.

[39] Yet another possible effect on beneficiaries arises when the funded activity interacts with the choice of labor effort. For example, contributions to advance the arts make leisure more valuable, which reduces beneficiaries' labor effort, generating a negative fiscal externality.

[40] However, if donors' altruism extends to the government treasury, a contrary force will be present.

the circumstances of the donor or (as has been suggested more often) with the nature of the charitable activity that is the recipient of the charitable giving. Some considerations bearing on this question are considered in section VI.

VI. Additional Considerations

Sections II-V develop a framework for integrating the analysis of policy toward charitable giving with the broader optimal taxation framework that has been developed by economists over the last half century. This exercise generates powerful lessons, many that conflict with conventional wisdom and previous economic assessments of charitable giving policies, and it identifies an important research agenda. Although much of the foregoing is new and the framework is more comprehensive than those underlying previous efforts, many issues and institutional features are omitted. This section briefly addresses a few of these topics.[41]

A. Differential Externalities and Decentralization

Section V's analysis of the different externalities associated with charitable giving, and of how each may depend on characteristics of both donors and charitable beneficiaries, implies that the optimal level of subsidization in principle varies across contexts and should be a function of many factors, often in subtle and complex ways. Given both limited current knowledge and challenges of administration, such a policy is impractical. Even so, it may be optimal to distinguish among some types of charitable giving that generate significantly different aggregate externalities and apply differential subsidy rates accordingly.

Concerns about decentralization, however, as well as considerations of political economy, may favor a more unified approach. An important distinction between a nonprofit sector funded by private, charitable contributions and one funded directly by the government—or, simply, direct government provision—is that the latter centralizes the funding decisions. That approach may sacrifice important benefits of private, decentralized decision-making.

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[41] Some are explored in Schizer (2009). It is also worth considering donors who give their *time* rather than money to charities. The rationale for subsidization, as well as pertinent qualifications, is largely similar. Standard income tax treatment, in ignoring contributions of time, implicitly subsidizes them at the donor's marginal tax rate: although no deduction is explicitly provided, the theoretically correct (but infeasible) treatment would tax the donor's imputed income from the labor supplied for free, and if that were done, providing a deduction would then generate a bottom-line result equivalent to that provided in the status quo. There is also some difference with the efficiency analysis because donations of labor effort reduce the donor's available leisure time, which in turn raises the marginal utility of leisure and thereby tends to reduce market labor effort, generating a negative fiscal externality.

Another omitted topic concerns the taxation of charities as such, notably, earnings on their endowment income, as well as the treatment of intermediaries, such as charitable trusts, private foundations, and donor-advised funds. A central question in these settings involves the optimal treatment of situations in which receipt by ultimate beneficiaries is deferred from the moment of the donors' contributions. That subject brings to mind literature on the optimal taxation of capital income, although in a quite different setting from that ordinarily contemplated.

One benefit involves diversity and experimentation. For example, agencies such as the National Science Foundation and the National Institutes of Health draw on top experts and attempt to take a broad view of national or global research priorities in allocating funds to causes and in selecting which researchers to support. Their decisions may well be superior to those of many privately supported institutions, much less those of individual donors. Yet many of the most important advances are attributable to private funding, often supporting research and researchers neglected by government funders. When ideas, particularly novel ideas, are at stake, significant diversity in decision makers has its virtues. This consideration partly explains why so many private sector, for-profit innovations come from startups rather than large, established firms with sophisticated (but bureaucratic) research departments.

The benefits of diverse, decentralized, non-governmental funding are not limited to scientific research. With the arts, religion, human services provision, and much more, there may be substantial advantages.[42] Of course, in all these cases, a government choosing subsidy rates for charitable giving could set the same rate across many causes. But introducing even some differentiation has two sets of drawbacks. One is that just discussed: the relative weight on different categories would still be chosen in a centralized manner and, to that extent, some of the benefits of a nonprofit sector supported by charitable giving would be sacrificed. The other is that the levels of subsidy would be set by government actors subject to lobbying or superficial appeals to shortsighted constituents, which can result in significant distortions.

Another important type of benefit—in a sense, a counterpoint to democratic, majoritarian decision-making that is associated with government calibration of subsidy rates—is that more decentralized, privately funded organizations can be an important counterweight to autocracy and dictatorship. It is no accident that independent, nonprofit actors are often greatly limited if not largely extinguished by more totalitarian governments. And it is familiar that, as autocrats seek to increase their lock on government, shutting down the sorts of organizations that rely on charitable support is a top priority.

The points noted in this section are familiar but sometimes forgotten. They are not readily illuminated by the framework developed in this article but nevertheless merit further research.

B. Comparative Efficacy of Charities versus Other Forms of Provision

The efficiency of charitable giving has been questioned on several grounds, including with regard to the solicitation of contributions (Andreoni 2006, Rose-Ackerman 1982). One

[42] This point offers a complementary reason to the above efficiency rationale for making the subsidy to charitable giving broadly available since individuals at different income levels support different types of charities to a notable extent.

concern relates to the dissipation of resources as charities compete for funding, although such competition also provides information and enhances accountability. Another is with tactics that may impose disutility on potential donors, such as in creating guilt feelings that giving assuages rather than in providing information that illuminates opportunities for giving that will raise utility relative to that achievable by the uninformed. It is hardly clear, however, how these concerns differ from those regarding advertising and marketing by for-profit organizations attempting to attract business—which provides valuable information but also can manipulate consumers such as by making them feel inferior with regard to their appearances or other aspects that bear on social acceptance and prestige. And candidates for political office similarly compete for votes and employ all manner of strategies, many of which may be detrimental, in the quest for power over the allocation of government resources. Likewise for lobbying.

Another consideration involves the efficiency of operations in light of nonprofits' weaker market constraints compared to for-profit organizations. Even so, some suggest that, in respects, nonprofits may have advantages, for example, because they may be less likely to cut quality to boost earnings (Weisbrod 1988, Hansmann 1996). Regarding the comparison with government provision, the focus of section VI.A, there are qualitatively and quantitatively different constraints and sources of accountability that bear on which form of provision is likely to be superior.

These and other questions about the solicitation of charitable giving and the operation of charitable organizations also warrant further study that is beyond the scope of this investigation. These points are noted in part because the methods of economics are particularly useful in illuminating many of them.

VII. Conclusion

To provide an informal, complementary exposition of some of this article's methods, analysis, and results, consider the following thought experiment that compares two income tax and transfer regimes. In the first, there is no special provision—deduction, credit, or otherwise—for charitable giving. It simply states the tax that individuals owe or the transfers that they are eligible to receive as a function of their earnings.

In the second, there is a special provision for charitable giving. For simplicity, suppose that it is a (refundable) tax credit of 25% that is available to everyone. Moreover, assume that all individuals at any given level of income are identical to each other, including that they give the same amount to charity—albeit a higher level under this regime than under the first, which offers no subsidy for charitable giving. And suppose further that the income tax and transfer schedule is a bit higher under this regime than under the first. Specifically, at each level of income, it is higher by the amount that results in individuals paying the same total tax (or receiving the same

transfer payment) as they did previously. For example, if those earning $50,000 paid $10,000 in tax under the first regime, and they give $1000 to charity when under the second regime (which saves them $250 in tax because of the 25% credit), their stated tax obligation before application of the credit is raised to $10,250; hence, after the credit, they still pay $10,000 in tax. (Note that, despite this identity, all individuals face a 25% subsidy on giving the marginal dollar, which is why they are taken to contribute more to charity under the second regime.)

Comparing these two regimes is straightforward but, in part for that reason, quite illuminating. First, these regimes produce the same amount of revenue (abstracting from some subtleties explored earlier in this article). Although the credit for charitable giving in the second regime reduces tax revenues, that revenue loss is recovered by imposing a higher tax schedule. Note that this conclusion holds without regard to the magnitude of the elasticity of charitable giving with respect to the net-of-tax price. That elasticity determines how much giving rises in the second regime, which affects the mechanical cost of the tax credit, but the adjustment to the income tax schedule is set to offset this mechanical cost, however large or small it may be.

Second, the two regimes are also distributionally equivalent. Even if, say, the rich give much more to charity than do middle income individuals or the poor—whether in absolute terms or as a percentage of their income—the tax regime with the tax credit for charitable giving does not overall favor the rich because their tax rate is raised by just enough to offset this benefit precisely. In the foregoing analysis, moving from the first regime to the second is referred to as a *distribution-neutral* policy change, and the prescribed adjustment to the income tax and transfer schedule is referred to as a *distributively offsetting tax adjustment*. A corollary of this point is that (again, abstracting from some subtleties), the two regimes result in the same labor effort being provided by all individual donors.

We can see, therefore, that the *only* difference between these two regimes involves what may be understood as the *distinctive* effects of the tax credit: the resulting increase in charitable giving. Accordingly, regime two will be superior to regime one if and only if this increase in giving is regarded to be socially beneficial overall. As already stated, this simple conclusion is independent of the ordinarily understood revenue cost of the provision, its stand-alone distributive incidence, and various other factors that are often suggested to bear on the optimal income tax treatment of charitable giving.

An important part of this article's analysis, presented in section V, addresses the many externalities associated with giving in general (such as from parents to children), with special attention to their manifestation in the context of charitable giving. In the benchmark case, the optimal subsidy equals the net positive externality associated with the marginal dollar spent. Determination of the relevant net magnitude of the associated externalities for the case of charitable giving is seen to be complex and subtle, pointing to the need for further research.

The purpose of this article is to provide a framework that integrates economic policy analysis of income tax provisions for charitable giving into the broader optimal income taxation framework, one that has benefited from a half century of development and has already begun to be extended to the analysis of private voluntary transfers. Tax policy analysis of the optimal treatment of charitable giving should not be ad hoc, treated largely as a subject unto itself, and it should certainly leverage what is already being learned about the optimal tax treatment of private transfers. However, because of the many distinctive features of charitable giving that have been identified here, it is also necessary to extend that analysis. This optimal income tax perspective on policy toward charitable giving does not tell the entire story, but it does offer important illumination, and redirection, of key plot lines that are already in play.

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