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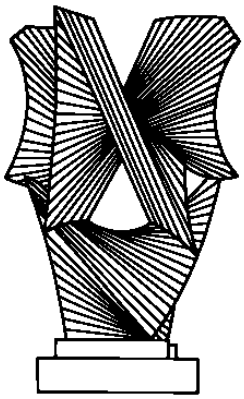

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I. Introduction

Few topics in American politics are more discussed and less understood than the federal budget deficit. This article, which is adapted from a chapter in a book in progress entitled *The Political Economy of Budget Deficits*, discusses one of the main issues that deficits raise: intergenerational equity, or the concern that deferring taxation relative to government spending, and relying on actual or implicit debt financing for current or projected future expenditure, reduces the lifetime consumption of future generations relative to that of current generations. I begin by summarizing the main empirical conclusions that the earlier chapters of the book reached after an extensive literature review. Obviously, I realize that the conclusions I state require greater support than they receive in this selection. I then turn to the normative issues raised by intergenerational distribution.

II. Summary of Empirical Conclusions

In the last two centuries, no question pertaining to budget deficits has received closer or more consistent attention than that of their intergenerational effects. Writers since David Ricardo have alternatively decried or denied the tendency of debt financing to shift lifetime consumption from future to current generations, and from younger to older living persons. Prominent decriers include Ricardo, who posited but rejected Ricardian equivalence; Martin Feldstein, who argued that Social Security reduces saving and shifts lifetime consumption from future to current generations; James Buchanan, who challenged the Keynesian "no-burden, no-transfer" orthodoxy, and later helped develop the public choice attack on debt financing; and Laurence Kotlikoff, who sought a broader measure of fiscal policy's inter-generational effects and advocated "generational balance." Prominent deniers include Robert Barro, with his Ricardian view of fiscal policy as having no first-order intergenerational effects; and various Keynesians, based

[*]Professor of Law, University of Chicago Law School. I am grateful to Anne Alstott and Richard Craswell for comments on earlier drafts, and to the Lynde and Harry Bradley Foundation for financial support.

both on the "no-burden, no-transfer" claim, emphasized by Abba Lerner, that the burden of public spending is borne currently no matter how it is financed, and on the claim, most recently associated with Robert Eisner, that public debt enhances not only current gdp but long-term economic growth.

My review of this debate has yielded a number of conclusions that are crucial prerequisites to attempting a normative assessment of the intergenerational issues raised by budget deficits. These conclusions include the following:

Conclusion 1: The Ricardian equivalence theorem, stated in strong form to assert that the timing of taxation relative to spending has no first-order intergenerational consequences, is incorrect. Ricardian offsets, or adjustments to bequests and lifetime transfers between members of different generations to achieve preferred distributions no matter what the government fiscal policy, may take place to some extent, but are incomplete, mainly due to fiscal illusion (or a correct understanding that public debt may remain outstanding indefinitely), as well as to the effects of strategic behavior and impure altruism both within multigenerational households and between different households. Nonetheless, the Ricardian analysis helps to demonstrate a number of important points, including the difficulty of measuring the net intergenerational effects of government fiscal policy, the fact that such policy provides only one of the many arenas in which the generations interact, and the importance of people's behavioral responses to government policies, reflecting the policies' perceived as well as actual effects.

Conclusion 2: Holding constant the amount and character of government spending, and assuming no significant actual or perceived risk of default, debt financing, relative to tax financing, tends in the long run to shift lifetime material consumption from future to current generations. This results from debt financing generally yielding greater aggregate perceived wealth than tax financing, both because a bondholder (unlike a taxpayer) possesses a valuable asset that offsets the transfer of cash to the government, and because, in the case of debt financing, people do not weigh the implied future taxes at their present value equivalent in current taxes. Greater perceived wealth should lead to greater lifetime spending on consumption (which is another way of saying that Ricardian offsets are incomplete). One should keep in mind, however, that this is a ceteris paribus conclusion. So many amorphous factors may affect people's expectations and perceived wealth that one cannot be certain of the effect's significance and consistency in practice.

This analysis of debt financing, relative to tax financing, also applies to "pay-as-you-go" financing where future revenue shortfalls are predictable, relative to accruing sufficient reserves to achieve long-run solvency under present tax and spending rules. While the similarity between explicit public debt and long-term revenue shortfalls most often is made with regard to Social Security, it potentially applies to all government budgeting. Suppose, for example, that the federal government currently is achieving annual budgetary balance, but that future spending increases (say, to meet increased needs in health care or national defense) are expected with near-certainty. A policy of keeping taxes constant, and thus maintaining current budgetary balance but not accruing the surpluses necessary to achieve long-term balance under existing policy, would favor current over future generations relative to a policy of raising taxes now so as to achieve such long-term balance. Obviously, the same point holds for surplus relative to balance as for balance relative to deficit; future generations would benefit still more (all else being equal) from our levying taxes in excess of anticipated long-term revenue needs.

Conclusion 3: Holding constant the amount and character of government taxation, a debt-financed increase in government spending tends in the long run to shift lifetime consumption from future to current generations. This is less definite, however, than Conclusion 2, which was based on the reverse assumption of holding spending constant and changing the level of taxation. What makes it less definite is the lack of specification as to the character of the new government spending. If the spending is for long-term investment—at least, relative to the private uses of resources that it replaces (disregarding the Keynesian case of slack in the economy, where the resources would otherwise have gone unused)—then it may instead have the opposite effect, shifting lifetime consumption from current to future generations. The claim that, as a general matter, increased government spending is more likely to benefit current generations is based on the relatively short time horizon that political decisions, as distinct from private household decisions, may tend to have, given politicians' disinclination to look beyond their terms in office, and voters' rational ignorance of complex public issues and incentive to maximize short-term benefits relative to other households.

An unfunded promise of future spending, no less than debt-financed current spending, can shift lifetime consumption from future to current generations if it is credible. A good example is provided by Social Security through the 1970s, which, by promising current

workers benefits in excess of the value of their contributions, may have induced them to save less overall than they would have otherwise—in effect, for the same reason that one might save less if one expected to win the lottery upon retirement. Moreover, windfall increases in benefits to the elderly, such as that occurring in Social Security in 1972, probably reduce saving as well even if they were not anticipated, since they act as a one-time wealth transfer to an age cohort with a relatively low propensity to save.

Conclusion 4: As suggested by Conclusions 2 and 3, a strong form of the "no-burden, no-transfer" claim made by Keynesians such as Abba Lerner is incorrect. Although government spending has a real resource cost to the society without regard to how it is financed, the subjective burden on a bondholder, who voluntarily lends money to the government based on a specific expectation of repayment with interest, generally is less than that on a taxpayer, who pays involuntarily and with no such definite expectation. Under some circumstances, however, the distinction between the two types of payors may be murky. For example, despite the involuntary nature of Social Security taxes, a contributor to Social Security may be more like a bondholder than a taxpayer, if the program does not force him to save more overall than he would prefer, and if the definiteness of his expectation of receiving future benefits with a present value at least equal to that his contributions approaches that of a bondholder.

Lerner's "no-burden, no-transfer" argument helps to remind us of two important points, however. First, public debt, in terms of its direct effects, can transfer wealth only between overlapping generations. Only currently living persons can make or receive bond payments of principal and interest. As Lerner put it, public debt does not provide a time machine enabling us to transfer wealth from the future to the present. Second, public debt is a financial asset, not a real asset. Whereas real assets—both tangible, like a factory, and intangible, like a living person's set of skills—are components of existing societal wealth, financial assets merely evidence people's relative claims to such wealth. Thus, in a real sense public debt has no direct relevance to the level of existing societal wealth, although over time it may influence the level of such wealth through its effects on behavior.

Conclusion 5: The traditional Keynesian claim that, short of full employment, stimulative budget deficits do not shift consumption from the future to the present, but instead increase consumption over the long-term, is incorrect, except perhaps under

special circumstances (such as those prevailing during the Great Depression) when capital markets are not well-functioning, and/or a crisis of confidence has caused consumption and investment demand to collapse. No matter how socially undesirable and even destructive one considers a high rate of unemployment, and no matter how blameless the unemployed may be for the quirks in marketplace demand that (among other causes) prevent them from finding jobs, the claim that much unemployment is "involuntary," in the technical, traditional Keynesian sense, is unpersuasive. Accordingly, full employment is an artificially defined (however laudable) policy goal, rather than a meaningful description of a distinct state of the economy, and the claim that, when unemployment is regrettably high, there is economic "slack" that makes government spending effectively cost-free, cannot be accepted. Contrary to the traditional Keynesian position, society generally does face a tradeoff between increased consumption today and increased consumption in the future. It may similarly face a tradeoff between present and future employment, although this is less certain given the complexity of causation for employment levels. The new Keynesian case for expanding the money supply to combat the market failures that may deepen and prolong recessions is reconcilable with this analysis, since it does not rely on liquidity traps that make current consumption cost-free (although one could in theory imagine an instance where the only effect of monetary stimulus was to eliminate the waste from failed short-term market-clearing).

Conclusion 6: While budget deficits tend to indicate a transfer of lifetime consumption from future to current generations—at least, relative to not having budget deficits—they provide a poor measure of the overall intergenerational effects of government fiscal policy. The deficit is a cash flow, not an economic, measure. Even among accounting measures that depart from economic accrual to increase certainty and ease of measurement, it stands out as crude and inaccurate. Its main flaws include ignoring the present value of future government spending obligations, likely expenditures, and taxes; taking no account of fluctuations in the value of government assets (or private assets created through government expenditure); and measuring the current year's change in the level of explicit national debt only nominally, rather than in real terms that reflect the impact of inflation. The deficit's flaws as a measure can lead both to

honest misunderstanding of the intergenerational effects of government policy and to deliberate "smoke and mirrors" manipulation.

Conclusion 7: Given the deficit's flaws as a measure, one might want to consider replacing it with generational accounting, which attempts to present a comprehensive picture of the intergenerational effects of government fiscal policy. One could alternatively argue, however, that generational accounting requires too many contestable (and, in the wrong hands, manipulable) assumptions to provide explicit direction for public policy. Given the deficit's potentially greater determinacy, as well as its greater salience to a public conditioned to fear rising explicit public debt, one could argue instead that it should be retained as the primary measure, and voters or policymakers better educated to see through "smoke and mirrors" deficit reduction, and to recognize the importance of large-scale multi-year programs such as Social Security. Or one could take an intermediate stance and argue for using present value computations of the deficit and national debt as primary measures. Such measures would resemble generational accounting in reflecting the present value of the future taxes and outlays expected under current policy, but would not attempt to allocate the projected shortfall between members of different age cohorts, or to estimate directly how any such cohort fares overall under government fiscal policy. They would require additional specification, however, concerning both their computation and their use.

Conclusion 8: Generational accounting computations suggest that modern fiscal policy generally has transferred wealth from younger to older Americans, and will continue to do so under its present course. Lifetime net tax rates (in terms of lifetime income) have risen fairly steadily throughout the twentieth century, and may, if present policy continues, reach levels for future generations that seem severe and even prohibitive. This raises concerns about both the intergenerational equity and the sustainability of present policy.

One should keep in mind, however, the controversiality of the assumption, critically underlying generational accounting's results regarding future generations, that members of such generations will have to pay off all public debt through tax increases. If public debt can be retained indefinitely, and even grow at the same rate as the economy, then, while permanently debt-financed government spending still has a cost to the society (if only from its displacing alternative uses of the same resources, and requiring permanent

payment of the interest charge), that cost need not have the intergenerational incidence that generational accounting assumes. In effect, permanent debt-financing (at least if it went to interest as well as principal on the national debt) would partly rehabilitate Abba Lerner's "no-burden, no-transfer" claim. In evaluating the intergenerational consequences of a permanently debt-financed expenditure relative to not engaging in the expenditure, only the benefits and burdens of the government's use of the resources, relative to the alternative uses that are foregone, would have intergenerational consequences. (Lerner would still be wrong, however, in viewing debt financing and tax financing of the expenditure as equivalent, and perhaps in attributing it particularly to present generations, given that it will also affect the resources that are left for future generations.)

An additional quibble with the apparent implications of generational accounting goes to the overall comparison between present and future generations. Before assuming that future generations will be far worse off than ourselves unless fiscal policy changes, one should keep in mind the possibility that per capita economic growth will render the debt burden trivial. This happened in nineteenth century England, and conceivably could happen again—whether or not we ought to rely, like Dickens' Mr. Micawber, on the hope that something will "turn up."

The analysis thus far has mainly been positive, rather than normative. We next should ask, however, how we want fiscal policy to affect the lifetime consumption of different generations. What is the appropriate intergenerational fiscal policy? Only one contender has been mentioned thus far: Laurence Kotlikoff's proposed norm of generational balance, defined as avoiding intergenerational wealth transfers through government fiscal policy, or alternatively as equalizing different generations' lifetime net tax rates. I therefore will begin the normative analysis, in the next section, by assessing this proposed norm.

III. A Fiscal Policy Norm of Generational Balance?

Kotlikoff does little to defend or even explain the norm of generational balance under either of its alternative definitions. Nor does he explain the reason for changing its definition from avoiding wealth transfers to equalizing lifetime net tax rates. The choice of appropriate norm also has received little attention in the early literature responding to

generational accounting, which focuses mainly on its merits as a system of measurement. One can nonetheless infer and develop rationales for the proposed norm.

Kotlikoff's two definitions of generational equity lead to different results. Suppose, for example, that there are two generations, each containing the same number of individuals. The average member of Generation 1 has lifetime income of $100, pays taxes in the amount of $40, and receives a $15 transfer payment from the government (financed by members of Generation 2). Thus, his net tax payment is $25, and his lifetime net tax rate is 25 percent. The average member of Generation 2 has lifetime income of $200, pays taxes in the amount of $45 (including the $15 paid to members of Generation 1), and receives no transfer payments from the government. Thus, his net tax payment is $45, and his lifetime net tax rate is 22.5 percent. Under Kotlikoff's no-transfer definition, Generation 1 has been treated better than Generation 2. Under his net tax rate definition, Generation *2* has been treated better than Generation 1.

On its face, Kotlikoff's more recent reliance on lifetime net tax rates seems to represent a shift from the no-transfer principle to something derived from the standard tax policy norm of horizontal equity, or treating alike (by taxing at the same rate) persons who are deemed relevantly equal. As we will see, this shift conceivably might not be intended or necessary: the lifetime net tax rate approach may simply provide a less direct, but more workable, means of detecting intergenerational wealth transfers through government fiscal policy. I will start, however, by assuming that this is not the case, and that horizontal equity is an ostensible ground for equalizing different generations' lifetime net tax rates.

A. Does Horizontal Equity Support Equalizing Different Generations' Lifetime Net Tax Rates?

The argument that a principle of horizontal equity, or equal treatment of equals, requires applying the same lifetime net tax rate to average members of different generations depends upon a number of narrower claims. Even apart from those going to why horizontal equity is important, and to how one should measure equal treatment, the argument relies on asserting both (1) that members of a single generation are sufficiently alike that one should group them together for purposes of determining the effect of government fiscal policy on an average member of the group, and (2) that members of

different generations, while not appropriately grouped together, are equals in a morally relevant sense. In *Generational Accounting*, Kotlikoff defends only the first of these two claims. He states that generational groupings make sense because people born at around the same time tend to act more alike than people born at very different times, reflecting their degrees of common experience.[1] This point has more obvious relevance to using generational groupings for purposes of predicting the effects of government policy, than for purposes of measuring equity.

Suppose, however, that we accept generational groupings and average-member comparisons for purposes of measuring horizontal equity. An additional preliminary problem worth noting is the horizontal equity standard's normative controversiality in the recent public finance literature. Louis Kaplow argues that, to the extent horizontal equity is given independent significance, it conflicts with predominant utilitarian and social welfare norms—for example, because it can indicate reducing overall welfare, as in the case where, since *A* is being treated better than *B* but ought to be treated the same, it supports treating *A* worse even if *B* does not benefit from the change.[2]

Even if one accepts the principle of horizontal equity, however, its capacity to support equalizing lifetime net tax rates in the intergenerational setting is extremely weak. For one thing, why should one regard the members of different generations as relevantly alike? In the tax policy literature, likeness often is thought to depend on the amount of one's income or consumption. Such an assumption seems implicit in generational accounting's lifetime net tax rate computation, which uses lifetime income as the denominator. Many, perhaps most, tax writers regard horizontal equity as consistent with applying different tax rates to people whose incomes (or consumption levels) differ. Comparisons between persons at different levels therefore are said to require consulting the far less determinate standard of vertical equity, or appropriate differential treatment of those who differ in their relevant attributes. Anyone who

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1 Laurence Kotlikoff, Generational Accounting (1992) at 107-108.

2 Louis Kaplow, Horizontal Equity: Measures in Search of a Principle, 42 Nat'l Tax J. 139 (1990). Much of Kaplow's analysis is irrelevant here because he mainly addresses a technical definition of horizontal equity, derived from efforts in the public finance literature to make it operational, as requiring that a change in the tax system not cause two individuals to have different utilities if but for the change they would have the same utility. Id. at 140 (quoting Martin Feldstein, On the Theory of Tax Reform, 6 J. Pub. Econ. 77 (1976)). In the inter-generational context, horizontal equity, as a basis for equalizing lifetime

supports any degree of rate progressivity in the income tax system should reject the claim that, in the intergenerational setting, horizontal equity requires equalizing lifetime net tax rates—unless one expects lifetime income henceforth to be constant over time, in contrast to its long-standing historical trend of steady increase.

Suppose, however, that one rejects rate progressivity. Even so, the principle that equals should be treated equally fails to support equalizing different generations' lifetime net tax rates. In other writing, I have noted that, when horizontal equity is evaluated by looking only at a subset of the government's actions, it "suffers from ineradicable second-best problems. Where the treatment of two individuals may differ in numerous respects, equalizing how they are treated under one set of government rules does not necessarily have any tendency to equalize their treatment by the government overall, and may as plausibly reduce overall equality of treatment."[3] This criticism may seem less relevant to generational accounting than to income taxation, since the former captures a broader subset of government rules, by looking in full at both the tax and transfer sides. Still, generational accounting fails to consider (1) benefit from the non-cash goods and services that the government provides, (2) detriment such as regulatory burden, (3) the behavioral effects on private saving of particular taxes, such as the claimed tendency of income and estate taxation to reduce saving to the detriment of future generations, and (4) non-cash contributions to the government, such as conscripted military service. The significance of these items may vary sharply over time, for such reasons as the historical growth of government, the sporadic nature of our foreign wars (and use of the military draft), and the existence of regulatory legislation (such as the Age Discrimination Act) that may have highly disparate effects across age cohorts.

Conceivably, however, support for equalizing lifetime net tax rates need not depend upon the norm of horizontal equity. It may instead be an indirect means of implementing the no-transfer norm for intergenerational fiscal policy that Kotlikoff states elsewhere in his work. To illustrate, consider two generations that do not overlap at all. Suppose that one generation, born in 1800, had a lifetime net tax rate of 10 percent, while another generation, born in 1950, is expected to have a lifetime net tax rate in excess of 30

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net tax rates, would focus on individuals' loss of utility by reason of the total effects of government fiscal policy ought to be the same, rather than starting from some norm of how it previously treated them.

[3] Daniel Shaviro, Commentary: Uneasiness and Capital Gains, 48 Tax L. Rev. 393 (1993).

percent. The claim that the 1950 age cohort has been treated inequitably relative to the 1800 age cohort would appear implausible. Even if we mistakenly assume that the two age cohorts received government services of equal value—and thus that the 1950 generation truly did worse, in its relations with the government, than the 1800 generation—the two sets of lifetime net taxes reflected wholly separate sets of political decisions made by wholly different people at wholly different times, with no direct interaction. Thus, even if the 1800 group fared better than the 1950 group (at least in its fiscal transactions with the government), this seems irrelevant to equity. Similarly, one would term it merely unfortunate, not unfair, that modern generations have the polio vaccine and earlier generations did not.

Kotlikoff, however, is concerned with overlapping generations, which are the only ones that can directly affect each other's wealth through transactions involving cash or other financial assets. Within overlapping generations, lifetime net tax rates may be thought relevant as indicators of intergenerational wealth transfer. Suppose, for example, that people born in 1980 pay net taxes at a far higher lifetime rate than people born in 1950. Not only may this reflect the direct political influence, during both groups' shared lifetimes, of the older group, but it is plausible that the government goods and services received by members of the two generations were comparable in value. Thus, one could view the imposition of unequal tax rates as evidencing (although of course not proving) the occurrence of a wealth transfer from the younger to the older age cohort.

One might ask why not look more directly for evidence of intergenerational wealth transfer, such as the direct transfer of specific Social Security contributions that were made by members of one group into the pockets of members of the other group. The answer is that such an inquiry would fail to provide useful information, given not only the practical difficulty, in many cases, of tracing the exact flow of cash paid to the government, but the substantive irrelevance of any such tracing. Recall the hypothetical involving Generations 1 and 2, but this time with a purely formal change. Suppose that the average member of Generation 1 paid $25 of gross, as well as net, tax, rather than separately paying $40 and receiving $15. In addition, suppose that Generation 2's tax bills remained unchanged, since the last $15 per person, while no longer being transferred directly to members of Generation 1, now was needed to replace the lost gross

tax revenues therefrom. The effects would be the same as in the original version of the hypothetical, but now there would be no discernible direct transfer of cash.

Accordingly, it seems plausible that a no-transfer norm for the intergenerational effects of government fiscal policy can only be applied indirectly, perhaps by attempting to equalize lifetime net tax rates (at least on a going forward basis) as between overlapping generations. Is such a norm more persuasive than that of horizontal equity between generations? The next section examines this question.

B. A No-Transfer Norm for the Intergenerational Effects of Government Fiscal Policy?

A no-transfer norm for intergenerational fiscal policy is considerably more controversial than it may initially sound. It goes well beyond merely opposing rate progressivity, since even a flat rate income tax is redistributive if those with higher incomes (and therefore greater tax liabilities) do not receive commensurately greater benefits from government spending. Beyond being controversial, however, the no-transfer norm can be criticized as both arbitrary and incoherent—perhaps in general, but certainly as applied to intergenerational fiscal policy.

Writers such as Cass Sunstein argue that a no-transfer norm is inherently arbitrary because it treats as a conceptual baseline the "pre-political" distribution of wealth that would prevail absent whichever proposed government policy one is considering. Sunstein's argument is twofold. First, the no-transfer norm seems to require assuming the prevailing distribution's superiority to any other. Second, given the pervasive effects of government on *all* private activity and wealth—not only through explicitly redistributive programs, but in light of such core functions as protecting private property—the no-transfer norm is incoherent. There *is* no inherently correct starting point to treat as a baseline; the implicitly assumed pre-political distribution does not exist to begin with.[4]

In some contexts, one could respond to Sunstein by noting other possible grounds for a no-transfer norm. Notwithstanding that all distributions are inherently political, and that the prevailing distribution need not be the best possible one, one could argue, in some circumstances, that a no-transfer norm tends to promote efficiency in the sense of societal wealth maximization. Redistribution tends to be costly, due not only to its transaction costs and effects on incentives, but to its encouraging the range of socially non-

[4] Cf. Cass Sunstein, [any article on the baseline pt].

productive activities, designed to procure or resist wealth transfers, that the public choice literature calls “rent-seeking.”

For purposes of assessing intergenerational fiscal policy, while this debate is worth noting—since it shows the inherent controversiality of a no-transfer norm—one need not resolve it. The no-transfer norm, even if persuasive in other contexts, is peculiarly artificial and question-begging here. What makes it so is the pervasiveness of transfers between members of different generations, acting outside the realm of government fiscal policy. Ordinarily, when one is comparing two groups—say, the rich and the poor, or urban and rural Americans—one can assume that there will be a relative paucity of gratuitous transfers between the groups. Exchange transactions would be the expected norm. Thus, without absurdity, one can isolate for analysis a proposed wealth transfer between the groups—although, to be sure, there is always the argument that a seeming transfer from Group A to Group B merely reverses a preexisting separate transfer from Group B to Group A. The claim that government fiscal policy favors one group at another’s expense is not inherently insignificant.

A comparison of overlapping generations, for purposes of assessing government fiscal policy, is considerably different. Even accepting that fiscal policy has intergenerational consequences, given the incompleteness of Ricardian offsets, a no-transfer norm appears strangely blinkered and formalistic given all the other gratuitous transfers between the generations that continually are taking place. Why care about one particular route of accomplishing something that is pervasive, and that mostly goes in the opposite direction, or from older to younger generations?

The existence of bequests and inter vivos gifts of cash or property is only a small part of the broader picture—traditionally emphasized because it is the part most obviously subject to Ricardian adjustment. Consider that numerous members of older generations devote enormous resources—above all, their own personal efforts as parents—to support and train for adulthood the members of younger generations. Every diaper changed, every moment spent driving one’s children to school, could be termed, in a sense, an intergenerational transfer.

Yet even the transfers within a single household capture only a portion of the whole. Consider the occurrence throughout the society as a whole of net capital formation, or the increase over time in net social resources, generally due to saving and productive

investment. Or consider the fact that at no time (as yet) have living generations wholly depleted or degraded existing real resources, either man-made or natural, despite by now possessing the physical power to do so. Resource non-depletion, and beyond that net capital formation, depend in large part on the willingness (whether or not altruistically motivated) of members of present generations to forego consumption during their lifetimes, to the potential benefit of their descendants. Such decisions are functionally equivalent to transfers to future generations, even if the word "transfer" seems inapposite given its implication that everything now available is rightfully ours to dispose of as we wish. A "transfer," for thus purpose, need only mean a decision not to allocate wholly to oneself a resource that is subject to one's physical power.

Transfers (in this or the more usual sense) from present to future generations through resource non-depletion and net capital formation are so huge that the notion of requiring balance in the narrow area of government fiscal policy seems hopelessly naive. A requirement of balance might also be contrary to all generations' preferences. Suppose, for example, that people care about future generations, due not only to altruism within the household, but to a patriotic interest in the future wealth and strength of the United States as a whole. Increased saving by any one person to increase our future wealth and strength would be subject to collective action problems if others, despite being like-minded, declined to engage in it because they realized that their own individual contributions would make so little difference at the margin. One way to solve this collective action problem is to have government fiscal policy stimulate increased saving, by using budget surpluses to transfer lifetime consumption from present to future generations.

Alternatively, suppose, as Allan Drazen has posited, that parents would increase their investments in their children's education, given the enormous return that such investment may yield in the form of increased future earnings, but for the difficulty of ensuring that the children will share the benefits with them. One cannot, after all, create a legally enforceable debt running from one's minor children to oneself (repayable at adulthood), or require them to repay one's debts at death, or, as a practical matter, even borrow against their expected future earnings. Due to these imperfections in capital markets, a selfish parent might decline, say, to borrow for a child's education at 8 percent for a return of 20 percent, absent any mechanism for making the child share this return. Debt-financed government spending for education, to be repaid when the children are

taxpaying adults, has the potential to correct this gap in the capital markets, and thus to benefit members of both generations despite its violating the no-transfer norm.[5] Under the right conditions, therefore, all generations would reject the norm of generational balance, and instead support the use of government fiscal policy to transfer money from younger to older generations.

A final set of objections to the norm of generational balance is brought to mind by the age group literature, which employs a snapshot perspective to examine how the currently young and elderly have been treated by government fiscal policy, and more broadly have fared economically, over time. Recent studies suggest that poverty rates among the elderly have been declining since 1939, but particularly since 1969, mainly due to changes in government tax and transfer policy; and that poverty rates among children declined from 1939 to 1969 but have been increasing since that time, mainly due to changes in parents' earnings. On a per capita basis, federal spending on the elderly exceeds that on children and youth by a ratio of more than three to one.[6]

This literature, while consistent in broad outline with the empirical findings of generational accounting, brings to mind two challenges to the proposed norm of generational balance. First, where broader social changes occur (such as declining parental earnings), the vision of equity that appears to underlie the norm might be better served by slanting the generational effects of fiscal policy so as to offset the effects (if undesirable) of these changes. Second, changes in the treatment of people currently belonging to different age groups may be desirable even if, as a transitional matter, such change violates generational balance by yielding windfall winners and losers. In the 1930s, for example, the enactment of Social Security reflected a deliberate decision to benefit the elderly, on the ground that they were past their prime earning years and thus could not be expected to escape poverty. More recently, the view has spread that we need to focus on helping children, both because they may be helpless (especially given the weakening of the traditional family) and because the long earning years that potentially lie ahead of them make them a better "investment" by society. One could argue that

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[5] See Allan Drazen, Government Debt, Human Capital, and Bequests in a Life-Cycle Model, 86 J. Pol. Econ. 505 (1978).

[6] Stephen Crystal, America's Old Age Crisis: Public Policy and the Two Worlds of Aging (NY: Basic Books 1982) at 5.

neither of these two views ought to have been rejected simply due to the transitional effects on lifetime outcomes for different age cohorts.

Against all these weighty objections to the norm of generational balance, only one good argument weighs strongly in favor of it. Such balance may be the approach best suited to minimize fiscal illusion, and thereby enable members of present generations to achieve the desired relationship between their own consumption and the consumption opportunities that they make available to their heirs through bequests or otherwise. Even Ricardians, who necessarily reject fiscal illusion, might concede that a policy of generational balance could lower the cost of making an accurate long-term assessment.

This argument is far from trivial if one believes that, as a result of fiscal illusion, present generations are saving too little relative to their own intergenerational preferences. It would imply that both present and future generations suffer when generational policy is imbalanced. The former fail to accomplish their own objectives—although they may never learn that they have left their descendants less than they intended. The latter end up receiving smaller net bequests than they would have had their forebears correctly understood the effects of government policy.

Nonetheless, the argument seems to fall short of establishing that a norm of generational balance should be adopted despite its many problems and limitations. Alternative and less sweeping responses to the fiscal illusion problem are possible. One such response would be simply attempting to promote greater public understanding and debate regarding the intergenerational consequences of government policy. A second possibility would be to seek to encourage saving and investment by any means apart from changing present generations' preferences. Examples could include improving the tax treatment of saving and investment relative to immediate consumption, or changing government spending to place greater emphasis on long-term investment.

Moreover, at bottom the fiscal illusion argument relies on a claim of harm to present, rather than future, generations. Although future generations are harmed if present ones mistakenly save too little, only the departure from what present generations ostensibly really want makes this appear unambiguously bad, rather than a potentially indeterminate tradeoff. Accordingly, the argument is not really intergenerational, but rather holds that

national saving is too low from the perspective of present generations. Accordingly, while it merits consideration, it is not within the scope of this particular article.[7]

C. Developing Alternatives to the Unpersuasive Horizontal Equity and No-Transfer Norms

If both horizontal equity and the no-transfer norm for government fiscal policy are unpersuasive, where does this leave the analysis? The immensity of transfers (broadly conceived) from present to future generations does not necessarily imply that we are entitled to get something back through government fiscal policy. We obviously owe everything, even our existence, to past generations that similarly made transfers to us. The point, rather, is that government fiscal policy is only one integral part of a larger whole. What matters, for purposes of determining the allocation of consumption between present and future generations, is the overall rate of saving and net capital formation, taking account of human capital formation and our treatment of depletable or degradable resources. This, in turn, invites normative inquiry regarding the appropriate overall behavior of present generations relative to prospective future generations.

Such an inquiry is facilitated by the existence of a rich economic and philosophical literature on issues of intergenerational equity. An oft-quoted starting point for considering the claims of future on current generations is Edmund Burke's famous statement that the state is a partnership among all members of the society, and that, "[a]s the ends of such a partnership cannot be obtained in many generations, it becomes a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born. Each contract of each particular state is but a clause in the great primeval contract of eternal society."[8] This view states our obligation towards future generations in the strongest possible terms, yet arguably diminishes its independent importance, by placing it in a broader framework of stasis, continuity, and equal obligation to the past and its traditions. Implicitly, our descendants

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[7] I discuss the claim that budget deficits may cause national saving to be too low from the perspective of present generations, on grounds that include fiscal illusion, in Chapter VI.C. of my forthcoming book, The Political Economy of Budget Deficits. I conclude that one can make a modest case for seeking to increase national saving, but that deficit reduction is only one possible means of doing so, and would be at least partly self-defeating as a means to the extent that it involved increasing the tendency of income taxation to discourage saving, or reducing valuable long-term investment by the government.

[8] Edmund Burke, Reflections on the Revolution in France.

will be much like us, and will not need more or different goods and institutions than those that we have. Burke also does not have strongly in mind the pang of a choice between, say, relieving poverty today and enriching society in the long run.

A less frequently quoted, but American, starting point is provided by Thomas Jefferson's claim that, because "the earth belongs always to the living generation," no generation should be able to bind its successors in any way—not to observe the same constitution and laws, and not even to repay private or public debts. While Jefferson's view could not possibly be more opposite to Burke's, both in principle and as applied to social and legal traditions, its implications for public debt can be interpreted as surprisingly consistent. Burke's contract view can be interpreted to imply a norm of reciprocity and symmetry between the generations (although he focuses more on continuity). Jefferson's no-debt view provides one possible means of applying such a norm, although other possible applications of the norm, such as keeping the national debt constant either in absolute terms or relative to some variable such as national income or wealth, would be inconsistent with Jefferson's position.

Jefferson's view has stood the test of time considerably worse than Burke's. After two centuries of armed revolutions less benign than our own, the notion that one can reinvent civil society every twenty years seems neither realistic nor attractive. Moreover, past generations cannot help fundamentally shaping the world in which future ones come to live, no matter how hard they try to avoid doing so (and there is no reason to believe they do try). Thus, a norm of total autonomy for each generation is implausible. At best, as James Madison recognized when he replied to Jefferson that future generations could rightfully be asked to inherit obligations alongside benefits, the underlying intuition decomposes into the norm of generational balance.

However, Burke's view has suffered over time as well, although, as we will see, it retains adherents. In the twentieth century, the worldwide pace of technological, political, and cultural change—along, perhaps, with a greater historical understanding of the pace of change even in the past—has tended to discredit Burke's belief in continuity, suggesting that our descendants may live (if at all) as very different people in a very different world.

The rapid pace of contemporary change has helped to stimulate two separate stages in the development of the intergenerational literature. First, since the 1920s, welfare

economists have addressed the question of how to determine the optimal rate of saving, given saving's effect on the relative material well-being of present and future generations. Second, in philosophy, a new genre of examining intergenerational justice emerged in the 1970s, largely in response to widespread fears that mankind is degrading the global environment and depleting the Earth's finite resources. The fear of collective catastrophe and potential species extinction, newly generalized beyond the threat of nuclear war, encouraged philosophers to examine the moral claims of persons who do not now exist, may never exist, and whose identities as individuals (if they come to exist) will depend on inherently unpredictable future happenstance, such as the fortuity of which eggs, fertilized by which sperm, happen to develop into living people. Neither of these two literatures has yet, to any significant degree, been brought to bear on the deficit debate among economists.

If these literatures permit one to reach firm normative conclusions, then in principle one could define, for any given moment, the optimal rate of saving. One could then, by comparing the optimal and actual rates, determine whether present generations were saving too much, too little, or just the right amount. This, in turn, could tell us what direction of change in government fiscal policy would bring us closer to the proper level.

Of course, even to speak of the "optimal rate of saving" is in a sense too narrow, because it tends to downplay the level of human capital transfer, and perhaps factors such as environmental degradation or depletion, or, for that matter, the threat of nuclear war. A change in something like the divorce rate, given its well-documented effect on children's welfare, ought in principle to be part of the intergenerational analysis as well.

Moreover, once one recognizes this undue narrowness, one can begin to question (or at least recognize the limitations of) the entire framework of analysis. For example, why care about the timing of material consumption when there is so much doubt about its relationship to actual subjective well-being? Are wealthier societies or individuals generally or always happier than those less wealthy, who may live in totally different circumstances and adjust to wholly different sets of expectations? How does one even measure consumption, which economists have long recognized is "fundamentally . . . a flow of satisfactions, of intangible psychological experiences?"[9] Not even the person

9 Robert Haig, "The Concept of Income—Economic and Legal Aspects," in R. Musgrave & C. Shoup (eds.), Readings in the Economics of Taxation (1959) at 55.

having such experiences can quantify them. Using a single implicit metric, such as "satisfaction," may be inaccurate, and at best a convenient organizing metaphor.

The economist's familiar tool of revealed preferences provides no help in this regard. It also is useless in distinguishing between consumption and saving, since that distinction turns on the actor's motive, or on the timing of the actual or expected return from what one chooses to do. If I change my child's diaper instead of watching television, then, while tautologically I have done what I preferred, it does not follow that I have maximized present consumption. I may have subjected both my child and myself to a few unpleasant moments because I think that our increased satisfaction tomorrow, when he does not have diaper rash, will exceed our mutual disgruntlement today. Yet how does one distinguish this from the possibility that I am acting to minimize my pangs of conscience today?

In the multigenerational household context, identifying the incidence of benefit is no easier than specifying its timing. Evolution has equipped parents with a measure of altruistic empathy for their children's pleasures and pains, and children with a talent for nudging the parents in this direction, if necessary. Even the core decision to have children resists classification. As a recent study notes:

> [F]rom the viewpoint of parents, children are themselves akin to consumer goods. Most parents have children because they want them, and they want children even though they know that children are expensive and present problems in other ways. If adults choose to spend their money on children rather than on steak, this may be because they find eating hamburger with their children more satisfying than eating steak alone. It is not obvious, therefore, that having children makes adults worse off in any meaningful sense, even if it reduces their consumption of "luxury" goods, reduces a previously two-earner family to a one-earner one with less income, and increases the fraction of their income that they allocate to "necessities."[10]

The incidence and timing of benefit may resist easy classification even outside the household context. What looks mainly like investment may really (or also) be consumption. Consider a costly weapons development program in the "Star Wars" genre that, if likely to be ineffective, serves mainly as a source of national pride, or else to

affect rival countries' current policy choices if they overestimate its prospects. Likewise, what looks like consumption may also be investment. Consider, for example, a government program that provides free meals to schoolchildren. While the program subsidizes current consumption, one could plausibly, under appropriate circumstances, term it an investment in human capital. Or consider a program of wealth redistribution among members of living generations. While the program presumably would increase current consumption as conventionally measured, given poor people's generally greater marginal propensity to consume, it might, if successful in reducing poverty, permit some individuals to live longer and more productive lives.

The only way to defend the myopic conventions that underlie a standard examination of the optimal rate of saving is to argue, not only that a more sophisticated analysis would be difficult or impossible, but that the standard analysis does well enough to merit attention. While this is unprovable, surely people often act as if they believe that wealth and material consumption tend to correlate with happiness, and view the decision whether to spend money now or later as a choice of when to consume. Moreover, the broad human capital, sociological, and environmental factors that may reduce one's confidence in the standard analysis may tend to be less important in assessing the timing of taxation relative to government spending than for many other purposes. One may therefore be justified, for purposes of the present analysis, in reluctantly leaving the broader methodological problems to one side. With that in mind, I will turn now to the questions that ought to replace norms of horizontal equity and generational balance in evaluating the appropriateness of present fiscal policy: how does one evaluate the optimal rate of saving, and where do we presently stand (considering both current fiscal policy and everything else that we do) in relation to it?

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10 John L. Palmer, Timothy Smeeding, & Christopher Jencks, "The Uses and Limits of Income Comparisons," in Palmer, Smeeding, & Barbara Boyle Torrey (eds.), The Vulnerable (Washington, D.C.: Urban Institute Press 1988), at 19.

IV. Is the Current Rate of Saving (Including the Effects of Government Fiscal Policy) Too Low from the Perspective of Future Generations?

A. Defining the Problem

One often hears the complaint that people in the United States are saving too little, both individually and collectively. For example, the economist Benjamin Friedman, in *Day Of Reckoning*, a work for a popular audience that denounces deficits, compares us to

> a man on a binge who asks why it matters? Flush with cash from liquidating his modest investment portfolio and from taking out a second mortgage on the inflated value of his house, he can spend seemingly without limit. The vacation cruise his family has dreamed about for years, the foreign sports car he has always wanted, new designer clothes for his wife and even his children, meals in all the most expensive restaurants—life is wonderful. What difference does it make if he has to pay some interest [and ultimately liquidate the rest of his assets]? . . . . [But] Americans have traditionally confronted such questions in the context of certain values, values that arise from the obligation that one generation owes to the next.[11]

As Friedman emphasizes, the main implications of a claim that we save too little are intergenerational. To be sure, the claim has some relevance for present generations as well, even under the assumption that people generally do what is best for themselves. The low national saving rate may depart from our preferences or true interests on a number of different grounds. We may be subject to fiscal illusion, causing us to overlook the effects of government fiscal policy on national saving. Or certain government policies, such as the use of an income tax that discourages saving relative to current consumption,[12] may distort our behavior. Or saving may be reduced by an externality problem, if, as is commonly asserted (although with little hard evidence), the social return to investment exceeds the private return due to factors such as increased economies of scale as the size

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[11] Benjamin Friedman, Day of Reckoning: The Consequences of American Economic Policy Under Reagan and After (New York: Random House 1988) at 3.

[12] By taxing returns to investment if one saves, but not reaching the psychic benefit of avoided impatience if one currently consumes, the income tax distorts the choice between current and future consumption by increasing the relative attractiveness of the former. See Daniel Shaviro, An Efficiency Analysis of Realization and Recognition Rules Under the Federal Income Tax, 48 Tax L.Rev. 1, 9 n. 29 (1992).

of the national economy grows.[13] Or the externality problem may relate to a collective interest in maintaining or increasing the United States' relative economic (and thus presumably political and military) power in the world.

Despite these intragenerational arguments, however, the primary implications of a claim that we collectively save too little are intergenerational, for two reasons. First, notwithstanding all of the above, there is a difference between what we do to ourselves and what we do to others who cannot affect our behavior because they have not yet been born. Second, an unduly low national saving rate, to the extent that it reduced the rate of growth in overall societal wealth, would affect our descendants more than ourselves in view of the long time lag that is needed for it to have a significant impact. Suppose, for example, that per-capita gdp grew each year by 3 percent, rather than 4 percent, owing to insufficient saving. Five years from now, per-capita gdp would still be more than 95 percent of what it "ought" to have been had we saved more. Fifty years from now, it would be just over 60 percent of what it "ought" to have been.

So far, while agreeing with Benjamin Friedman that the main implications of his claim that we are saving too little are inter-generational, I have not questioned his claim itself. Yet such a normative claim plainly requires explicit justification. Friedman, perhaps sensing the deep waters into which attempting to establish it would drag him, or else because *Day of Reckoning* is written for a popular audience, over-simplifies the issue by arguing from an inapt analogy. His man on a binge is dissaving, and thereby dissipating his wealth—not merely saving too little and thereby increasing his wealth too slowly. The United States, by contrast, still has a positive saving rate and gdp that is growing in real terms.

The one thing that is fairly clear in support of Friedman's claim is that the current national saving rate in the United States is unusually low, by both international and our own historical standards. Since around 1980, the national saving rate in the United States has generally been last, and always at least close to last, among major industrialized nations. After averaging 7.1 percent in the 1970s, it has averaged only 3 percent since 1980, and stood at only 1.7 percent in 1993. While this partly reflects the growth in federal budget deficits, which count, for purposes of the measure, as public dissaving, it

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[13] See William D. Nordhaus, What's Wrong with a Declining National Saving Rate?, 32 Challenge 22, 24 (July-August 1989) (noting the appeal, but lack of evidence, for this claim).

also reflects a decline in the private rate of saving, from 8.1 percent for the 1970s to a low of 4.5 percent in 1989, albeit with a more recent increase to 6.3 percent.[14]

Some view these official figures as arbitrary and noneconomic. David Bradford has recently revived the argument that the conventional measure of national saving is inadequate because—much like the budget deficit—it applies accounting conventions such as historical cost, rather than looking at real economic values. Bradford proposes instead to define the national saving rate as the change in market value of net national wealth per capita.[15]

For some purposes, such as determining how people's material well-being is changing over time, Bradford's measure plainly is more informative than the conventional one—although ephemeral fluctuations in such items as stock market and real estate prices may create a degree of "noise." However, for the purpose of examining behavior at the decisional margin between consuming and investing, one could argue that his proposal is inapposite. By providing a current market value measure of the results of people's decisions, as measured in present market value terms, he does not distinguish between the amount invested and investment outcomes. Suppose, for example, that productivity growth declined because, despite a constant rate of scientific research, no powerful new technologies had recently been discovered or brought into general use. Bradford's measure would treat this as a decline in saving, which would say something accurate about the results, but not about the underlying behavior that contributed to the results.

Accordingly, the conventional measure of national saving seems preferable to Bradford's for the narrow purpose of determining whether Americans have become less prone to defer consumption. However, even if one preferred Bradford's measure for this purpose, one's conclusions regarding the trend in national saving might not change significantly. As one would expect given his measure's reliance on volatile short-term phenomena such as the level of stock market prices, his figures show greater fluctuation in the national saving rate from year to year. They do, however, suggest an overall long-term decline in the national saving rate (again, defined as per capita wealth

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[14] Wang Nan, "Why Americans Don't Save," Xinhua News Agency, 6/ 17/94.

accumulation). Additional research would be needed to confirm that the national saving rate, in Bradford's sense, is also low relative to that in other industrialized nations.

In sum, Benjamin Friedman's core empirical claim that the present national saving rate in the United States is unusually low probably can be accepted. Still, however, even if our present collective behavior is unusual, no normative implications need follow. Perhaps other societies, including the United States in the past, save excessively, or simply have different tastes. Or perhaps at present we have good reason to save less—for example, because the size and vigor of our economy, and the stability of our political institutions, make it relatively easy for us to attract foreign investment.

A low rate of saving tends to slow economic growth and the upward path of productivity. Even if a reasonable level of domestic investment is sustained by foreign investment, the profits presumably will inure to foreigners, thus reducing, although not eliminating, domestic benefit from the foreign investment. Short of dissaving, however, a low national saving rate does not create any inherent sustainability problem for the present level of consumption. While obviously a higher growth rate is preferable if all else is equal, all else is not equal given the general tradeoff between current consumption and saving for future consumption. Surely we are not obligated to live like hermits, toiling unceasingly so that future generations can live a lot better than us, any more than, at the other extreme, we should make no provision for the future at all. Rather, in principle there is an optimal rate of saving, perhaps varying with the context, that would lead to the optimal allocation of consumption (however one defines optimality) between present and future generations. One needs to know something about the optimal rate of saving before one can conclude that the actual saving rate is either too high or too low, and therefore whether the effect of deficits on national saving is good, bad, or indifferent.

Unfortunately, as Amartya Sen commented more than thirty years ago, "the search for the 'optimum' rate of saving has not yet been vastly more successful than that for the holy grail."[16] John Rawls agrees that it "seems to admit of no definite answer."[17] E.J. Mishan notes that, while a number of well-developed economic models purport to

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15 David F. Bradford, "Market Value versus Financial Accounting Measires of National Saving," in B. Douglas Bernheim & John B. Shoven (eds.), National Saving and Economic Performance (Chicago: U. of Chicago Press 1991), at 15-44.

16 Amartya Sen, On Optimising the Rate of Saving, 71 Economic Journal 479 (1961).

17 John Rawls, A Theory of Justice (Cambridge, MA: Harvard Univ. Press 1971) at 286.

determine the appropriate rate of economic growth (permitting one to deduce the optimal rate of saving, with the help of additional information), "the models are 'cooked up' so as to give the imprimatur of science to what is, after all, no more than a popular ethical judgement."[18] Mishan attributes this failing less to the particular economists who have designed the models than to the inherently limited capacity of economics, as a discipline, to derive strong welfare conclusions about complex social issues from its conventional starting point of revealed preferences.

The problems in determining the optimal rate of saving are both empirical and philosophical. As examples of the former, what real growth rate should we expect from our saving, and how well off will our descendants otherwise be relative to us? Real growth rates in the United States economy have varied substantially over time, and conceivably could vary still more in the future. Are we on the verge of an unprecedented technology-fueled wealth explosion? Might we instead be approaching reversal of the centuries-old trend of generally steady growth, under the strains of an aging population, overall population growth, environmental disasters, and growing resource shortages? Might we even be approaching a catastrophe, caused by war or environmental and demographic strains, such that significant saving for the future serves little purpose?

While such questions are close to unanswerable, the philosophical issues are no easier. As Jan Narveson puts it, answers to the question of what we are morally obligated to do for future generations "range all the way from Nothing to Everything—which would be no cause for alarm, except that both answers, and some in between, have rational support."[19] Do we owe future generations everything? Rawls argues that this could follow logically from utilitarianism if one prefers to maximize aggregate rather than average happiness, allows no time discount for future relative to current consumption, and assumes that future generations, in the aggregate, will be far more numerous than ourselves.[20] Or one could posit that parents have a duty to treat their children's well-being as more important than their own. Alternatively, do we owe future

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18 E.J. Mishan, Economic Criteria for Intergenerational Comparisons, in Futures (October 1977) at 383.

19 Jan Narveson, "Future People and Us," in R.I. Sikora & Brian Barry (eds.), Obligations to Future Generations (Philadelphia: Temple Univ. Press 1978), at 38.

generations nothing, because they have done nothing for us, and lack the moral status of presently living individuals?[21] Derek Parfit argues that we might owe them nothing whenever our choices change the precise identity of who comes to be born. He notes that, given the biological facts of human reproduction, including monthly ovulation of a distinct egg, very little is needed for a collective social choice to bring about such change. Those who would not have been born but for such choices ostensibly cannot complain so long as they are glad, on balance, to be alive, and those who never come to be born surely have no moral status.[22] As an intermediate alternative to the positions noted by Rawls and Parfit, is what we owe future generations a function of what past generations have done for us? Benjamin Friedman asserts this, implicitly relying on something like Edmund Burke's view of an eternal chain-linked contractual partnership, with or without its underlying religious aspect. Or does what we owe future generations depend on satisfying John Locke's proviso for the legitimacy of private property acquisition: that there be "enough and as good left . . . for others"?[23] The proviso's implications in the intergenerational context (as elsewhere) are subject to dispute.[24]

This only hints at the range of philosophical questions that can be (and have been) asked in the intergenerational setting. Ought one to apply a social rate of discount, treating future harms as less weighty than present ones? Or are a billion catastrophic deaths in one hundred years, if certain to occur, as bad as a billion catastrophic deaths today? If one adopts a utilitarian perspective, should one seek to maximize future generations' average happiness, or their aggregate happiness? As various philosophers

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[20] Rawls (1971) at 289. This assumes, perhaps unrealistically in some cases, that consumption is not time-exclusive, and thus that my foregoing a unit of consumption will typically permit many successive future people, not just one future person, to consume in my stead.

[21] Jan Narveson notes that this arguably follows logically from viewing morality as based on at least implicit contract between independent rational agents. Jan Narveson, "Future People and Us," in R.I. Sikora & Brian Barry (eds.), Obligations to Future Generations (Philadelphia: Temple Univ. Press 1978), at 38.

[22] See Derek Parfit, Reasons and Persons (Oxford: Clarendon Press 1984).

[23] John Locke, Two Treatises on Government (Peter Laslett, ed.), 2nd ed. (Cambridge: Cambridge Univ. Press 1967) at section 27. See Robert Nozick, Anarchy, State, and Utopia (New Yotk: Basic Books 1974 at 174-182, for a discussion of Locke's proviso as limiting (but not greatly) the right to private property in a libertarian system.

[24] Compare Robin Attfield, The Ethics of Environmental Concern (Oxford: Blackwell Press 1983) at 96 (arguing that Nozickean justice implies only minimal obligations towards future generations); with Robert Elliot, Future Generations, Locke's Proviso and Libertarian Justice, 3 J. Applied Phil. 217 (1986) (arguing that Locke's proviso, as interpreted by Nozick, may generate extensive obligations to future generations).

have noted, either definition seems to invite absurd consequences—such as killing everyone but the happiest person (assuming he would not mind) under the former definition, or massively increasing the human population to a Malthusian level of bare sustenance under the latter. Is the norm of intergenerational justice simply incoherent, as Terence Ball argues, on the ground that "justice" is a socially contingent concept which future people are almost certain to view completely differently than we do?[25] Ought we instead to rely on our own norms, either because it does not matter whether they will be held in the future or because one can assume relative continuity in the assessment of questions of equitable distribution? Or ought we to hark back to Thomas Jefferson's view that, because "the earth belongs always to the living generation," no generation ought to attempt to bind its successors to any set of practices, whether those embodied in an ongoing constitution or in the commitment to repay public debt?

While these are weighty questions on which reasonable people disagree, the choice of standard is fundamental. For convenience, and because it fits my generally utilitarian intuitions, I will adopt a modified version of John Rawls' approach (albeit that Rawls rejects utilitarianism). Rawls famously describes the original position, a hypothetical state from which people decide on appropriate principles of justice, social institutions, and the like, in light of the consequences that their choices will have, but behind a veil of ignorance concerning who, and how fortunate, they will be in the resulting society.[26] While the original position and veil of ignorance provide a useful heuristic, I reject Rawls' accompanying ad hoc assumption of apparently infinite risk aversion, which leads him to derive a "maximin" principle, under which those making choices from the original position would conclude that nothing matters but maximizing the well-being of the worst-off person. The arbitrariness of this assumed extreme risk aversion can be shown in many ways—for example, by asking whether in practice very many people would (or should) sell a lottery ticket for $1 if it offers a 1 percent chance of no return and a 99 percent chance of earning a billion dollars. In the intergenerational setting, the "maximin" principle has the peculiar implication—which Rawls steadfastly, but (as many

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[25] Terence Ball, The Incoherence of Intergenerational Justice, 28 Inquiry 321.(19__).

[26] Rawls (1971) at 12.

commentators agree) unconvincingly, denies—that no generation should save if, in consequence, the next generation will be better off.[27]

In place of "maximin," I will assume a general utilitarian norm, on the ground that a decision-maker in the original position wants to maximize his likely well-being as a randomly placed person, although perhaps subject to a more plausible level of risk aversion. I will also assume that the Rawlsian decisionmakers know that we have gotten to where we are today, rather than operating from the overly abstract original position. The only remaining question for them to consider, asked from behind a veil of ignorance regarding who one will be and when one will live (or even if one will live, compared to other potential people), is what to do next.

However, I will ignore the difficult issue of population size, and thus of average versus aggregate utility. This issue, in addition to being all but insoluble, is not directly implicated by questions of the optimal saving rate and government fiscal policy, since the causal linkages are unclear. Does a taste for increased saving correlate with people having fewer children, so that they can spend less on current household consumption? Or does it correlate with people having more children, because the greater wealth that it gradually produces makes child-raising more affordable? Likewise, do larger budget deficits, to the limited extent that they affect family planning, predominantly cause people to have fewer children, so that their households' likely shares of future taxes will not increase, or more children, because paying less in current taxes tends to make one feel wealthier?

Among the consequences of my choice of norm is that any Burkean claim that explicitly or implicitly contractual reciprocity between generations is important as an end in itself can be ignored. The same goes for the claim that parents have a duty to treat their children's well-being as more important than their own (rather than equally important). While such claims cannot be disproven, at least if stated as first principles, they derive from different moral premises than those I choose. On the same ground, one can disregard Derek Parfit's distinction between choices that change exactly who will be born in the future and those that do not. The modified-Rawlsian approach also has the

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[27] See, e.g., Bruce Ackerman, Social Justice in the Liberal State (New Haven: Yale Univ. Press 1980) at 223-225 (criticizing Rawls' rejection of this implication of maximin); R.H. Solow, Intergenerational

consequence of eliminating the social discount rate as between present and future lives, and suggesting that, say, severe material deprivation is equally regrettable whether it occurs today or in five hundred years (assuming equal certainty of its occurrence). Discounting is appropriate only within the same person's life, since only then can one imagine deferral as reducing the value of a satisfaction or the cost of a harm.

Even with these specifications, the analysis remains exceptionally complicated. For example, even disregarding risk aversion, the modified-Rawlsian approach does not support a norm of monetary wealth maximization, which might imply that present generations should toil like slaves, consuming as little as possible, so that per capita social wealth can grown as fast as possible. Given the generally declining marginal utility of wealth, a present person does not necessarily increase aggregate well-being by depriving himself of X units of consumption so that an already wealthier descendant can enjoy $X + Y$ units of consumption. The proper tradeoff between these two consumption alternatives would be difficult to evaluate even if one could quantify X and Y (and the wealth of the alternative consumers) in constant dollar terms.

One would like to find a short cut to avoid the many empirical and philosophical imponderables. Three main possibilities come to mind. First, drawing on the economic literature concerning growth, one could adopt a standard called dynamic efficiency, which, as John Seater explains, "is a kind of Pareto optimality; an economy is dynamically efficient if it is not possible to improve one generation's welfare without reducing the welfare of another. In particular, an economy is dynamically inefficient if it has overaccumulated capital"[28] such that it could consume more without reducing future generations' consumption.

As Seater notes, we are far short of the dynamic inefficiency frontier, at which we would self-defeatingly be saving too much.[29] Thus, the standard's only possible use lies in asserting that changes in present behavior are undesirable unless they are Pareto-optimal—which would seem to imply either that no change is allowed, or that we may voluntarily decide to save more, on the ground that a voluntary act should generally be assumed not to harm the actor, but that no particular obligation to do so exists. However,

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Equity, 41 Rev. Econ. Studies 29 (1974) (developing an economic model that deduces a norm of equal consumption by all generations from applying maximin).

[28] Seater (1993) at 150 n. 12 (emphasis in original).

the intergenerational setting is an unusual one for the Pareto standard, which generally applies to transfers between parties that are more distinct in their interests than the altruistically linked members of a single household. The Pareto standard also can be criticized as a variant of the no-transfer norm that applies an undefended status quo bias, and as inconsistent with the modified Rawlsian standard that I have adopted.

Second, one could try to reconcile the generations' interests by treating living people's preferences as changeable. Suppose that the question one asked was whether it would be better, from the modified-Rawlsian perspective, if present generations could be induced to enjoy saving, and therefore to do so a lot. Such enjoyment might reflect the influence of what Keynes called "pure miserliness, i.e., unreasonable but insistent inhibitions against acts of expenditure as such."[30] Or it might reflect the pleasure of performing what one deems a virtuous action that promises future individual, household, or national wealth. Assume that the alternative was for people to dislike saving, and therefore engage in as little of it as their prudence and altruism would permit. It seems clear that a positive taste for saving would be better for society over time, since it would permit present generations' preferences and those of possibly more materialistic future generations to be more consistent and mutually fulfillable. Accordingly, one could imagine a benevolent government seeking through education to instill such a preference. The argument is similar in form to that for having the government discourage, say, racial hatred, or sadistic enjoyment of inflicting pain on other people—tastes that create even greater conflicts between the satisfaction of one person's preferences and another's.

Such an argument for shaping current preferences has several problems, however. It does not guide behavior prior to the change in preferences, and one cannot necessarily be confident that the hoped-for change is feasible. Moreover, relying on the feasibility of changing preferences, rather than working from revealed preferences, makes the whole analysis rather open-ended. Why not posit instead that future generations can be educated to be less materialistic, so that they will not mind our leaving them less in the way of material goods? One also could debate how far people's psychological flexibility extends: not only what sets of preferences are possible, but also whether different sets are, in truth, equally enjoyable. Keynes, for example, in discussing the taste for "pure

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[29] Seater (1993) at 158.

miserliness," probably believed that it was not only socially destructive (given the need for greater spending on consumption), but personally unsatisfying and constricting.[31] Yet his belief in this regard, while psychologically plausible, resists conventional proof or disproof, given the difficulty of making interpersonal utility comparisons between misers and free spenders so as to determine who is truly happier.

One more ground exists, however, for arguing that we need not evaluate a set of difficult tradeoffs in order to conclude that present generations ought to save more. This ground is perhaps the most promising, and certainly the most popular, of the three. Various writers (mainly lawyers and economists)[32] have argued on what one might term procedural grounds that the level of private saving, or perhaps overall saving, in society is generally likely to be too low. When present generations decide how much to save, they are engaged in a one-sided transaction that has two-sided consequences. Future generations are affected by what we do, but they cannot bargain or even plead with us. At a minimum, as Sen notes, this shows that we cannot rely upon the standard economic norm of consumer sovereignty, and assume that the current level of saving, in light of the market interest rate, is appropriate.[33] However, one could take the argument a step further, and assert, with Arthur Pigou, that the level of private saving will inevitably be too low, and that the government therefore must act to increase national saving. Or, with the modern, public choice-fueled skepticism about government of a James Buchanan, one could argue that the government is likely to be part of the problem, rather than the solution. This might suggest either despair or the need for a constitutional response such as a balanced budget amendment. The following section assesses the argument that, on procedural grounds, the national (or at least the private) saving rate is likely to be inadequate from the standpoint of intergenerational justice.

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30 Keynes (1936) at 108.

31 See Skidelsky (1976) (discussing Keynes' rebellion against Victorian prudence and future-mindedness).

32 See, e.g., E. Donald Elliott, Constitutional Conventions and the Deficit, 1985 Duke L.J. 1077; Buchanan & Wagner.

33 Sen (1961) at 486.

B. Does the One-Sided Nature of Decision Making by Present Generations that Affects Future Generations Suggest that the Level of Saving Will Be Too Low?

The claim that the national saving rate must be too low, relative to what it would be if all affected parties' interests were fairly represented, is familiar in form. Benefit to future generations from saving seems a standard externality that present actors might be expected to under-value, both in their private behavior and through the political process. Contemporary political practice and preferences concerning budget deficits and unfunded future obligations seem to provide rich anecdotal confirmation. The Ricardian claim of multigenerational intrahousehold altruism may give one temporary pause, but perhaps the incompleteness of Ricardian offsets shows that, at the margin, even if not unlimitedly so, present generations are primarily selfish rather than altruistic. The procedural argument that we tend to save too little does not require assuming that we are indifferent to future generations' well-being; only that we value it less than our own well-being.

An initial problem with the procedural argument concerns the implicit norm of genuinely two-sided decision making, involving future as well as current generations, that it seems to assume would be appropriate if only such a process were physically possible. One could argue that, even as a thought experiment, the implicit norm is far from clearly correct, and thus cannot strongly support the claim that we should save more. Before assessing the claim that moving from membership in present generations to the Rawlsian original position might be expected to enhance one's concern for the interests of future generations, it is useful to begin by considering two settings for the coordination of different people's interests that are more realistic and less abstract: the marketplace and public decision making through politics.

Starting with the marketplace setting, one might imagine, as a thought experiment, that if only future generations could be brought here for the limited purpose of expressing their demand and affecting market prices, they would bid up the interest rate to a sufficient level to increase saving and enable them to consume more. This is incorrect, however. Even if one ignores the income effect—the fact that people may save less when the interest rate is higher, since less saving is needed to reach one's desired wealth level—the theoretical loan transaction between present and future generations involves a trade, whereas the reality involves an either/or choice. Saving past our own life spans involves a one-way transfer of lifetime consumption from us to our heirs. Thus, a

theoretical marketplace negotiation between present and future generations could not give rise to a mutually agreeable allocation, any more than the poor could negotiate with the rich in such a setting to determine the proper distribution of presently existing wealth.

The political setting may appear more promising as a thought experiment, since in principle future generations could vote to require us to save more and thereby increase their lifetime consumption relative to ours. Here, however, the difficulty lies in assuming that one can use the political setting to decide, as a normative matter, who ought to transfer wealth to whom. Since voting necessarily disregards the intensity of people's preferences, majority rule can yield transfers that are unjust or that reduce collective well-being. Hence the concern with minority rights that dates back to Madison. Thus, even if we are quite right, as a general matter, to allow wealth transfers through the political process, on the grounds that no better means of decision-making exists and that a no-transfer norm is arbitrary, one cannot assume in any given case that the actual (or, under the future-generations thought experiment, hypothetical) wealth-transfer outcome is normatively appropriate. For example, what if future generations were to mandate, at the hypothetical ballot box, our toiling like slaves for their benefit?

Thus, fixing procedural defects in the two main settings in which we decide how to coordinate people's interests would not yield a clearly better answer, even as a thought experiment. Perhaps the modified-Rawlsian setting does more to make the case, since it is plausible that moving from membership in present generations to the original position might be expected to enhance one's concern for the interests of future generations. Yet one could argue that such a line of reasoning yields a false prediction. Suppose, for example, that one makes the plausible assumption that we in present generations have some intergenerational altruism, but attach greater weight to our own well-being, especially relative to that of distant generations, and perhaps even relative to our own children with respect to experiences they will have in the future when we can no longer observe them. This might suggest the likelihood of negative real saving, leading to the gradual depletion of existing resources, such that the standard of living would continually decline, even if only modestly. In effect, one might expect to observe at least a moderate version of Benjamin Friedman's depiction of the man on a binge. This is counter-factual, however, given the lengthy period in which we have had a positive national saving rate and real per capita economic growth. (While it remains possible that present generations

still under-value future generations' interests, if from the modified-Rawlsian perspective they would choose to make future generations better off still, one could argue that it is difficult to accuse of insufficient altruism those who permit others to be better off than themselves, but not by enough.)

How can one explain each recent historical generation's apparent willingness to save enough so that the next generation would do better, other than by positing what might seem an implausible level of altruism? At least four different but perhaps supplementary explanations are possible. First, the pressures of evolutionary survival, as a species and a society, may select for future-mindedness beyond one's life span—in effect, as a kind of automatic reflex, even if at various margins we are selected to make rational choices based on selfish motivations. Second, and more mundanely, as has been discussed in the Ricardian literature, imperfect annuity markets may induce people to over-save against the "risk" of living too long, and thus to leave behind substantial unconsumed wealth when they die accidentally or prematurely. Third, the existence of constantly overlapping generations may be significant. Inter-generational hypotheticals, for convenience, often abstract to a setting where two distinct groups live at different times and never meet. In practice, however, living generations have a range of expected life spans, continually extending into the future as the population turns over. This may help to discourage the strategy of drawing down present resources, by making it potentially disadvantageous to a large percentage of the living. Fourth, technological advances offer new opportunities to later-born generations that cannot be transported backwards with a time machine, and that earlier-born generations may repeatedly under-estimate because the advances cannot be imagined. Surely few in the mid-nineteenth century imagined that we would possess items such as cars, television, supersonic jets, and personal computers.

Whatever the reason for earlier generations' willingness to save at a rate that permitted later generations to enjoy greater lifetime consumption, its long-standing occurrence suggests that the basic picture, in which the living have all the power but the unborn bear a part of the consequences, is inaccurate. Unborn generations have power, in a sense, after all, whether due to influences on living generations' behavior that mingle the prudential with the altruistic, or because, by being born later, one gets to live at a time when more has been accomplished and more is known. The situation is analogous to that of a hypothetical society where the poor have all the political influence, but the

government lacks the power or will to levy high taxes or engage in takings, with the result that the rich, despite being political outcasts, are nonetheless better off, and in a meaningful sense more powerful.

Thus, the procedural argument fails to establish that present generations save too little, and thereby end up consuming too much, relative to future generations, from the modified Rawlsian standpoint that I have posited. Impossibly hard though doing so may be, we must look at the actual merits after all.

C. The Tradeoff Between Consumption by Present and Future Generations: Maximizing Total Consumption Versus Equalizing Its Distribution

Again, the actual merits of the tradeoff between present and future consumption seem exceptionally difficult to assess. Even apart from the theoretical ambiguities that lie buried in my choice of a modified-Rawlsian standard—for example, what degree of risk aversion is appropriate, and how steep a decline one should assume in the marginal utility of wealth—there is pervasive empirical uncertainty concerning how the future will look compared to the present, under different scenarios regarding the amount of present saving.

Still, the analysis need not be unstructured, even if it is ultimately indeterminate. Three main points come to mind. The first is the absence of a social discount rate across life spans, given that a decisionmaker behind the Rawlsian veil of ignorance would not know when he was going to live. Thus, all else being equal (and ignoring any uncertainty about whether future generations will in fact be born), one would prefer to trade X units of consumption by people today for $X + Y$ units of consumption in the future.

The second point to keep in mind is that such an uneven tradeoff is in fact presented if saving generates a real positive return (as one might ordinarily expect, barring calamity or social waste). The argument starts from the point that profitable investment, by definition, increases the amount of wealth available for consumption—in effect, permitting $X + Y$ units of consumption later in lieu of X units of consumption now, where Y is the real interest rate, or rate of growth for the economy, over the period of deferral. Within the life of an individual, the potential for real growth does not establish that deferring consumption is desirable, given the time value of consuming sooner to avoid impatience. However, if present value discounting is inappropriate for future

consumption by the unborn, since they are not yet experiencing impatience, then net capital formation tends to increase aggregate utility for all generations, by increasing future generations' consumption by more than it reduces current generations' consumption.

Indeed, the real interest rate probably understates the increase in the actual subjective value of the increase in consumption opportunities that results from deferring consumption in order to permit profitable investment. Later consumption may provide more utility than earlier consumption, even without an increase in its dollar value, if technological advances increase consumer surplus. To illustrate, assume that one person living in the 1920s and another living in the 1990s have identical wealth, measured in constant dollars, except that the latter person owns a television, video cassette recorder, compact disk player, and computer (plus all the accessories needed to enjoy them) with a total market value of $5,000. If the former person would have paid more than $5,000 to own and enjoy those assets, and the latter would not renounce them for $5,000, then surely the latter is more than $5,000 better off (at least in a material sense, which is all that government fiscal policy can directly address). As evidence that the products created by technological advances provide enormous consumer surplus, consider a recent survey suggesting that nearly half of all Americans would refuse to give up television for the rest of their lives for less than $1 million[34]—obviously far in excess of its lifetime cost to the consumer.

These two points would seem to suggest that present generations should save more than they in fact do—indeed, should save to the very limit of dynamic efficiency, at which so much capital has been invested that its marginal efficiency declines to zero. The third key point has opposite implications, however. It concerns the declining marginal utility of wealth, as well as any appropriate decisional risk aversion—factors that tend to limit the amount of net capital formation, beyond that necessary to maintain constant per capita wealth, which is desirable. At some unknown point, as net capital formation increases beyond the per capita maintenance level, the lifetime consumption opportunities of members of future generations become sufficiently greater than our own to suggest that our descendants will derive less utility from $X + Y$ additional units of

[34] See $1 Million Not Enough to Make Some Give Up Television, in Chicago Tribune, October 5, 1992, at 3. (46 percent of those surveyed would require a payment of at least $1 million).

consumption (or even $X + Y + Z$, including any increase in consumer surplus) than we would from X units. Thus, a decisionmaker in the modified-Rawlsian setting would face a tradeoff between optimizing the total amount of material consumption and optimizing its distribution that is extremely difficult to resolve.

In what remains the best known (although the earliest) economic model designed to determine the optimal rate of saving, Frank Ramsey deduced from the declining marginal utility of wealth that the optimal rate of economic growth might constantly decline, as increasing societal wealth reduced the marginal utility of consumption. Indeed, it eventually might reach zero, at the point he termed "bliss," where additional consumption had lost all marginal utility, and where merely maintaining the existing wealth level would therefore be optimal. More generally, in Ramsey's model, under the assumptions that the rate of return on capital declines as more is invested, and that the marginal utility of consumption declines as overall consumption increases, one could specify that the amount of capital investment should be set at precisely the level where its rate of return would equal the percentage rate of decline in marginal utility.[35]

Even if one considers this specification to lack practical usefulness, and Ramsey's state of "bliss" to be practically or even theoretically unattainable, his model helps to show, within the welfare economics tradition, the significance of the offset between long-term wealth maximization and equality of distribution. The rhetorical significance of future generations' presumed increasing wealth (assuming one accepts it) may be even greater than its real significance in Ramsey's rigorous social welfare terms. As Gordon Tullock notes, people who are making charitable gifts tend to have little interest in increasing the welfare of those better off than themselves, and generally make gifts only to those who appear worse off.[36] Thus, the case for having the government play Robin Hood in reverse, by changing its fiscal policy in a regressive direction, so as to shift consumption from present to future generations, may have little appeal to many of us once we understand it in these terms, despite the social welfare case for conveying real benefits to our better-off descendants that exceed the real detriment to ourselves.

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[35] Frank Ramsey, A Mathematical Theory of Saving, 38 Economic Journal 543 (1928).

[36] Gordon Tullock, The Social Rate of Discount and the Optimal Rate of Investment: Comment, 78 Quarterly J. of Economics 331, 334 (1964).

Should we assume increasing per capita wealth, however? Such an increase does not follow logically from net capital formation alone, since in principle the population could grow more rapidly from the economy. An expectation of increasing per capital wealth does follow, however, from making the admittedly controversial assumption that long-standing historical trends will continue. In both the United States and western Europe, per capita wealth and lifetime consumption have been increasing fairly steadily, and in the aggregate dramatically, for many centuries (subject, of course to various troughs such as the Great Depression and those caused by war, and to changes in the degree of distributional inequality). The continuing rapid pace of technological development provides some ground, at least, for believing that this trend will continue.

At a minimum, surely long-standing history and the course of technology create enough of an inference of increasing per capita wealth to require an explanation of why one should expect anything different in the future. Moreover, such an explanation must fall into a broad middle ground in order to support the conclusion that present generations should save more. Suppose, for example, that the world is headed for an imminent nuclear catastrophe, given the seemingly inevitable dissemination of nuclear weapons. Increasing saving would make little sense under this scenario. The lack of a significant future would suggest consuming all the more while still we can.

The middle-ground pessimism that would support increasing saving is not wholly implausible, however. A number of present trends arguably, although controversially, may support it. Consider, for example, the relative aging of the United States population, owing to long-term demographic trends along with the effects of new medical technologies that can keep sick people alive for longer (although, perhaps, not always making them better off) at enormous expense. Or consider arguments that topsoil erosion and the effects of maximum-yield farming will lead soon to a reversal of recent enormous increases in farming productivity.[37] Moreover, some have argued that mankind is reaching the point of exhausting the Earth's finite fuel resources, and at the same time is generating toxic waste products in volumes that will soon exceed the tolerance of a well-

[37] See, e.g., D. Pimenta et al, Land Degradation: Effects on Food and Energy Resources, 194 Science 149-155 (1976); R. A. Brink et al, Soil Deterioration and the Growing World Demand for Food, 197 Science 625-630 (1977).

functioning (from our perspective) global environment.[38] The threat of global warming, potentially resulting in widespread flooding of densely populated coastal areas and desertification of areas that at present are agriculturally productive, is only one example of such dangers. The staggering pace of world demographic growth, particularly in relatively impoverished Third World nations, excites understandable concern as well.[39] A further set of threats relates to war, social breakdown, and the possible worldwide effects of evil regimes, akin to those in Hitler's Germany or Stalin's Russia (or any number of contemporary examples, from Cambodia to Iraq to Rwanda to Haiti) that may do enough harm to make our descendants worse off than ourselves, yet conceivably without rendering present investment futile.

These fears have tended, perhaps, to excite greater skepticism in the economics profession than elsewhere. Many economists recall how frequently such fears have been expressed from time to time (yet never fulfilled) since at least the days of Thomas Malthus. Under the optimistic view that some economists prefer, population growth merely increases the stock of human capital, which Julian Simon terms the "ultimate resource,"[40] and increases the attainable scale efficiencies in providing people with goods and services. Moreover, apparent resource limitations have frequently been solved in the past by the advance of technology, driven by marketplace incentives, as well as by market-driven increases in resource substitution, recycling, and intensity of search for resources as they become more costly.[41] Yet the optimistic view does not necessarily extend to political and social dangers, and even for scarce material resources it is unprovable as applied to the future, however frequently it has been correct in the past.[42]

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38 See, e.g., Donella & Dennis Meadows, Jorgen Randers, & William Behrens III, The Limits to Growth (New York: Universe Books 1972).

39 See, e.g., Kenneth E. Boulding, Sources of Reasonable Hope for the Future, 74 Am. Econ. Rev. 221, 222 (19__).

40 Julian Simon, The Ultimate Resource (Princeton: Princeton Univ. Press, 198 1).

41 See, e.g., Harold T. Barnett & Chandler Morse, Scarcity and Growth: The Economics of Natural Resource Availability (Baltimore: Johns Hopkins Unuv. 1963).

42 See, e.g., Nicholas Georegescu-Roegen, The Entropy Law and the Economic Process (Cambridge: Harvard U. Press 1971) (discussing the significance of material entropy, or our ongoing diffusion of concentrated natural resources and conversion of productive resources into waste products); V. Kerry Smith & John V. Krutilla, Economic Growth, Resource Availability, and Environmental Quality, 74 Am. Econ. Rev. 226, 227-230 (19__) (discussing theoretical and practical challenges in the economic literature to the optimistic Barnett-Morse analysis).

Thus, one surely could make the case for increased saving, based on the view either that things will generally get worse (but not so bad as to eliminate the future benefit from present saving) or that, while things will continue to get better, the benefit of increasing growth outweighs the detriment of regressive redistribution as between present and future generations. Yet making the case with any great sense of certainty would seem to require either obtuseness or unfounded confidence in one's intuitions about the future.

The most defensible stance, from a modified-Rawlsian perspective, appears to be one of skepticism concerning any strong claims about the proper level of saving. One might nonetheless accept or even welcome people's voluntary decision to save more, whether expressed in the private saving rate or in political demands for changing government fiscal policy, on the ground that present generations presumptively are not injured by something that they do voluntarily. Yet one cannot easily justify attempting to mandate such a result, wholly apart from changes in taste, by prescribing complex and difficult systemic changes to government fiscal policy, such as the adoption of a balanced budget amendment or a generational accounting version thereof.

Perhaps the strongest ground for reducing the present tendency of government fiscal policy to shift lifetime consumption from future to present generations arises under a kind of insurance argument. Under this argument, one would concede that the public debt burden on future generations may turn out not to matter, either because things go so well that it becomes trivial, or because things go so badly that greater present saving would not have helped. Since it might turn out to matter, however, we ostensibly have an obligation to ensure that we do not leave our descendants to live worse lives materially, or insufficiently better lives, than our own.

Such a view would be most plausible if one adopted a measure of generational equity under which parents had a moral obligation to ensure that their descendants will be able to live better than themselves. Under my modified-Rawlsian view, which treats all generations as presumptively equal, there is no particular reason why one should insure against our descendants' misfortune, rather than our own. Given the widespread poverty and hardship in the world today, and even in a relatively affluent country like the United States, why not insure instead against the risk that our descendants will be vastly wealthier than us, or that saving will prove futile due to a calamity? The insurance argument therefore leads in no particular direction under the modified Rawlsian view

unless one can show why the decision-makers behind the veil of ignorance would one regard one particular risk among the many that are discernible as particularly worth insuring against.

Given the range of empirical and philosophical uncertainties that impede evaluating the tradeoff between present and future consumption, one could powerfully argue that intergenerational policy should not be at center stage, either in the deficit debate or more generally. To illustrate this point, consider Laurence Kotlikoff's typology of governmental policy as dividing into four fundamental categories, of which generational policy is one. The other three types are spending policy (how much the government consumes over time), distortionary policy (how the government's actions affect people's economic choices), and intra-generational distribution policy (concerning the allocation of benefits and burdens between the richer and poorer members of each generation).[43] Arguably, all three merit more overall attention than generational policy, although only spending policy is directly implicated by the deficit debate.

Spending policy is important due to the potentially great differences in how efficiently the government, as compared to private parties, uses economic resources. Whether one subscribes to the limited government school of a James Buchanan, and views government as a leviathan that wastes resources because voters are more aware of the benefits it provides than of its costs, or to the view that, due to voters' collective action problems, government does too little to correct market failures and supply public goods,[44] one should agree that the size of government can significantly affect aggregate social wealth.

Distortionary policy resembles spending policy in its capacity to affect aggregate social wealth. While one can argue either in favor of government-imposed distortions as responding to externalities, or against them as leading to deadweight social loss, either way such policy's significance is clear. Consider Martin Feldstein's long-standing argument that taxes and regulation bear much of the responsibility for declining rates of economic growth since the early 1970s. Even if this claim is overstated, and technological or cultural trends (to name two possibilities) had more to do with slowing the rate of growth, there remains ample anecdotal confirmation that distortionary policy

43 Kotlikoff (1992) at 91.

often causes large-scale social waste in particular instances. One example is provided by the still-empty office buildings, in cities across the country, that were built in the early 1980s in response to tax incentives that left investors relatively unconcerned about pretax profitability. Another is provided by the $200 billion savings and loan bailout, which in part represents a real social loss reflecting bad investments made by managers of savings and loan institutions whose incentive to weigh downside risk was reduced by federal banking law.[45] Avoiding policy disasters such as those caused by tax and banking law in the early 1980s arguably is more important (and more unmistakably beneficial) than increasing overall saving, reducing the budget deficit, or moving in the direction of a generationally balanced fiscal policy.

Finally, intra-generational distribution policy arguably is more important than generational policy even though the two turn on similar tradeoffs between the often competing goals of maximizing overall wealth and equalizing the distribution of wealth. One reason for paying greater attention to intra-generational distribution policy is that the rich and poor among a single generation tend to differ more in wealth than do the average members of age cohorts with overlapping life spans. A second reason for placing greater emphasis on intragenerational distribution policy is the difference in our level of knowledge about the groups whose wellbeing one is attempting to affect. One can never hope to know as much about future generations (their level of wealth, behavioral patterns, and so forth) as about currently living groups in the society.

Thus, if generational policy were the only substantive issue raised by budget deficits, one would be tempted to conclude that deficits do not merit nearly the level of attention that they have received in the political process in recent years. If they are as important as many have believed, then it must be for other reasons. The main such reasons, which relate to their macroeconomic effects and their tendency to permit government spending to be greater than it would be if full current tax financing were necessary, are no less important than the intergenerational issue, but lie beyond the scope of this article.

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[44] See, e.g., [cite Anthony Downs & Olson, as per Michael Hayes or Eskridge & Frickey at 55-56].

[45] See, e.g., Jonathan R. Macey & Geoffrey P. Miller, America's Banking System: The Origins and Future of the Current Crisis, 69 Wash. U.L.Q. 769 (1991) (noting the widely accepted view of "federally subsidized deposit insurance as an essential element of the current crisis").

This Working Paper is a preliminary version of a chapter of a book, *The Political Economy of Budget Deficits*. Readers with comments should address them to:

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