

# REFORMING THE TAX PREFERENCE FOR EMPLOYER HEALTH INSURANCE

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## INTRODUCTION

Under federal law, employers are allowed to deduct amounts paid for employer-provided health insurance (EHI) and employees are not taxed on the value of EHI.<sup>1</sup> In addition, because amounts used to purchase EHI are not considered part of “wages,” they are exempt from payroll taxes at both the employer and employee level.<sup>2</sup> This exemption from income and payroll taxes results in an effective subsidy to EHI for the average insured employee of approximately 32 percent (Cogan, Hubbard, and Kessler 2007). The favorable treatment of EHI also has major implications for the federal budget. The Joint Committee on Taxation (2008) estimates the revenue cost of the EHI exclusion to have been \$246 billion a year in 2007, and that figure will continue to increase with the rise in medical spending.<sup>3</sup> Indeed, the favorable treatment of EHI is the largest single federal tax

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<sup>1</sup> See IRC sections 105, 106, and 162.

<sup>2</sup> See IRC section 3121.

<sup>3</sup> The estimate for 2007 is the most recent estimate which assesses the combined impact on payroll and income tax revenues of the preference. Other estimates of

preference, considerably greater than the tax preferences for owner-occupied housing or employer-provided pensions.<sup>4</sup> The value of EHI is also excluded from income for most states' income tax purposes, further expanding the scope of the preference.

The preferential treatment of EHI is widely (and correctly) seen as affecting the trade-off between the purchase of medical care and the purchase of other goods or services (Joint Committee on Taxation 2008). The favorable treatment of EHI has another effect, as well. It changes the effective price of medical services provided through insurance as opposed to medical services paid out-of-pocket (OOPS). As noted above, the value of EHI is entirely excluded from income. In contrast, OOPS are deductible only for those who itemize, and then only to the extent they exceed 7.5 percent of adjusted gross income.<sup>5</sup> This effect gives employers and employees the joint incentive to choose low-deductible, low-coinsurance health plans over plans that involve more cost sharing.<sup>6</sup>

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income tax costs alone project that those costs have risen and will continue to rise. For example, a recent Joint Committee on Taxation estimate assumes that the income tax cost of the exclusion will rise by approximately 40 percent from 2009 to 2013 (Joint Committee on Taxation 2010, p. 41).

<sup>4</sup> The Joint Committee on Taxation estimates the 2010 income tax cost of the EHI exemption as \$106.6 billion, while the cost of the mortgage interest deduction is estimated at \$103.7 billion. However, the EHI exclusion also reduces payroll liability. The cost of the exclusion for contributions to employer-provided pensions is approximately \$80 billion (Joint Committee on Taxation 2010).

<sup>5</sup> IRC section 213. For purposes of the alternative minimum tax, the threshold is 10 percent. Starting in 2013, the threshold will be 10 percent for all itemizers. IRC section 56.

<sup>6</sup> The EHI preference affects plan choice in two ways. First, 52 percent of covered workers in 2010 were offered a choice of plans by their employer (Kaiser Family Foundation 2010, Exhibit 4.2). Second, even employers who do not offer a choice of

Although several other features of federal tax law partially undo the preference for EHI over OOPS, each has limitations that constrain its impact on health spending. First, the preference for EHI over OOPS is reduced for individuals who are covered under qualifying high deductible health plans and who set up Health Savings Accounts (HSAs).<sup>7</sup> Amounts contributed to HSAs are above-the-line deductible from taxable income, and distributions from HSAs (including interest) are non-taxable as long as they are used for health services.<sup>8</sup> However, except for employees whose employer makes HSA contributions directly, wages used to fund the contributions are still subject to payroll tax. Relatively few taxpayers use HSAs, perhaps because information barriers and perceived transactions costs required to set up an account.<sup>9</sup>

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plans respond to their workers' preferences in determining the amount of their plan's cost sharing (Bundorf 2002).

<sup>7</sup> See IRC section 223. The required deductible is \$1,200 for an individual and \$2,400 for a family in 2011.

<sup>8</sup> HSA contributions made by an employer are also excludable from payroll taxation. Withdrawals not used for health expenditures are included in gross income and subject to a 20 percent penalty. However, this penalty does not apply to withdrawals after retirement. For that reason, HSAs can also serve as vehicles for retirement savings.

<sup>9</sup> The government does not provide annual data on the number of taxpayers using HSAs. However, the estimate of a tax cost of \$900 million for 2010 (Joint Committee 2010) suggests that usage is relatively limited. One industry group estimates that in 2009, approximately 10 million taxpayers have plans that make them eligible for establishing an HSA. However, not all of these taxpayers established accounts and many accounts had little or no contributions or withdrawals. The average contribution in active plans was about \$3,105, while the average withdrawal in those plans was \$1,850 (AHIP Center for Policy and Research 2010). At a marginal income tax rate of 30 percent, these data suggest that around one million taxpayers make significant use of HSAs, and that the plans are used to save, as well as pay for OOPS.

Second, the preference for EHI over OOPS is also reduced for employees whose employer has established a flexible health spending account (FSA) as part of a so-called “cafeteria plan.” Employees can elect to have a portion of what otherwise would be taxable wages put into an FSA. Employees can use funds in the account to pay for, or get reimbursed for, OOPS. Amounts placed in the account and used to pay for OOPS are exempt from income and payroll taxes. However, FSAs are subject to numerous restrictions, the most important of which is a mandatory “use it or lose it” provision that requires employees to spend their account's funds during the tax year or return them to their employer.<sup>10</sup> As a result, although approximately half of all workers are offered an FSA, only 35 percent of those offered take it up (Kaiser Family Foundation 2010; Employee Benefits Research Institute 2007).

The tax preference for EHI over OOPS is important because the two are not perfect substitutes. Significantly, EHI, like all insurance, reduces risk but increases moral hazard. At the margin, employees pay only a portion (the copayment and/or deductible) of the cost of services and so may desire services whose value is less than their cost. Insurers attempt to reduce moral hazard through plan limits, pre-approval reviews, and deductibles and copayments, but these measures are themselves costly and only partly effective. In the absence of taxes, individuals would balance off the gains from risk sharing with the inefficiencies of moral hazard

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<sup>10</sup> In addition, for taxable years beginning after 2012, there is a \$2,500 annual limit on this tax preference; see IRC section 125. Employers can also establish Health Reimbursement Accounts (HRAs) for their employees. Like FSAs, HRAs are owned by the employer. Unlike FSAs, HRAs must be funded solely by the employer and can be rolled over from year to year; see IRC section 105.

and decide on the proper ratio of insurance to OOPS. The tax preference for EHI over OOPS changes that tradeoff to favor insured expenditures over OOPS.

The tax preference for EHI thus increases consumption of medical care for two reasons. It lowers the cost of health services relative to all other goods; and it leads people into low-deductible, low-copayment health plans, which increases the amount of moral hazard.

### **THE TAX PREFERENCE FOR EHI: PRIOR RESEARCH**

A large body of work has sought to quantify the effect of the tax preference. One set of studies (*e.g.*, William Jack and Louise Sheiner 1997; Jonathan Gruber 2002; and Cogan, Hubbard, and Kessler 2011a), uses theoretical models to simulate the effect of tax policy based on existing empirical estimates of structural parameters such the price elasticity of demand for health services. Other work (*e.g.*, Jonathan Gruber and Michael Lettau 2004; Michael Smart and Mark Stabile 2005; and Cogan, Hubbard, and Kessler 2011b), estimates the effect of the tax preference empirically. All of these studies conclude that repeal of the tax preference would cause health spending to drop significantly.<sup>11</sup>

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<sup>11</sup> For example, Gruber (Table 5, 2002) reports that removing all tax subsidies for health insurance would result in a 35.4 percent decline in health spending among individuals who are offered insurance by their employer.

Cogan, Hubbard, and Kessler (2011b) estimate the effect on health spending of the tax preference for insurance using data from the Medical Expenditure Panel Surveys from 1996 through 2005. The authors exploit the fact that Social Security payroll

None of this, however, proves that the tax preference is inefficient. Because markets for health services suffer from numerous imperfections and market failures (*e.g.*, Kenneth Arrow 1963), the additional consumption induced by the tax preference may or may not improve social welfare.

In theory, there are three possible efficiency rationales for the tax preference: the superiority of the employer group as an aggregation mechanism for the purchasing of insurance; the existence of negative externalities to uninsured or underinsurance; and cognitive errors on the part of individuals that leads them to consume too little care. In practice, however, there is little evidence that a tax subsidy is an efficient or necessary response to any of these factors.

First, as Mark Pauly and Bradley Herring (1999) observe, employers would likely remain a source of pooling, even in the absence of the tax preference.<sup>12</sup> Most importantly, independent of tax law, employer groups are likely to enjoy a strong administrative cost advantage. In addition, the difference in pooling between employer groups and the individual market is smaller than a simple model would predict. Even lightly regulated individual-insurance markets risk-rate imperfectly,

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taxes are only levied on earnings below a statutory threshold to identify the tax preference's impact. Because employer-sponsored health insurance premiums are excluded from Social Security payroll taxes, workers who earn just below the Social Security tax threshold receive a larger tax preference for health insurance than workers who earn just above it. Cogan, Hubbard, and Kessler find a significant effect of the tax preference. Depending on the specification of the model, the authors estimate that repealing the tax preference would reduce health spending by individuals with employer-sponsored insurance by between 26 and 33 percent.

<sup>12</sup> More recent simulations of this policy by the Congressional Budget Office confirm this view; see Peter Orszag (2008).

and employers implicitly adjust wages to accomplish some degree of risk-rating within the firm. Taken together, these factors limit the extent to which the institution of EHI depends on differential taxation.

Second, there is no evidence that uninsured or underinsurance exerts a negative externality on the privately insured. As a study by researchers at the Urban Institute shows, the cost of the subsidy to EHI overwhelms any increase in burden attributable to "cost shifting" from the uninsured or underinsured (Jack Hadley, John Holahan, Teresa Coughlin, and Dawn Miller 2008).<sup>13</sup>

Third, the tax preference for EHI could be efficient if informational barriers or cognitive errors led individuals to spend too little on health care, and reducing the cost of that care corrected for those barriers or errors. A necessary but not sufficient condition for that to be true would be that reduced prices at point-of-service lead to better health outcomes. The condition would not be sufficient because we would expect those who benefit from subsidies to have higher welfare (here, better health outcomes); the inefficiency would stem from the fact that that improvement was valued at less than cost. However, as the RAND Health Insurance Experiment showed, reducing the cost of medical care increased demand but produced virtually no improvement in health outcomes.<sup>14</sup> Jonathan Gruber (2006)

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<sup>13</sup> Reviewing the evidence, Cogan, Hubbard, and Kessler (2011a) conclude that cost shifting from the uninsured was less than one percent of private insurance premiums in 2008.

<sup>14</sup> Joseph P. Newhouse and the Insurance Experiment Group (1993). Although certain low-income and vulnerable subpopulations in the RAND experiment did experience some health benefits from more generous insurance coverage, these

analyzes the research (and subsequent studies) spawned by that study, and reaches a similar conclusion.<sup>15</sup>

The fact that it is difficult to find a generalized benefit to subsidizing health insurance is strong evidence that the subsidy is inefficient, and that is in fact the conclusion reached by essentially all health policy analysts.<sup>16</sup>

One way to conceptualize the policy analysis surrounding the EHI tax preference is to imagine its abolition and then to ask how we might use the roughly \$250 billion we spend on the preference to subsidize medical care. It is difficult to think of a social welfare function that would be maximized by using these funds to recreate the tax preference.

## **POLITICS vs. POLICY: ALTERNATIVES TO REPEAL OF THE TAX PREFERENCE**

Despite the evidence that the tax preference is an economically inefficient approach to health policy, politics have prevented significant reform. Table 1, reproduced from Joint Committee on Taxation (2008), shows why: the benefits of

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populations are unlikely to benefit much from a subsidy to EHI. However, see Jeffrey Liebman and Richard Zeckhauser (2008) for an opposing view.

<sup>15</sup> A new study which compares the effects on health and well-being of a randomized expansion of Oregon's Medicaid program may lead to a different conclusion. Finkelstein, *et al.* (2011) find that provision of health insurance leads to improvements in self-reported measures of health outcomes. However, as the study itself observes, because it only has self-reported measures available as of 2011, the results may reflect improvements in objective, physical health, but that remains an open issue to be examined in future work.

<sup>16</sup> See, *e.g.*, Feldstein and Friedman (1977); Jack and Sheiner (1997); Furman (2008); Pauly (2009).



the exclusion are widely distributed, with the vast majority of taxpayers enjoying a significant tax reduction from it. Although the recently passed Patient Protection and Affordable Care Act of 2010 effectively ends the unlimited tax exclusion -- starting in 2018, the new law proposes to establish an excise tax of 40 percent on high cost health plans -- the ultimate impact of the law is still uncertain. As currently written, the law provides numerous exceptions to the excise tax, and actuaries in the industry are already predicting that it may be modified before it takes effect.<sup>17</sup>

An alternative approach to removing the tax bias that favors health insurance over out-of-pocket payments is to exclude out-of-pocket payments from either income or payroll taxation or both. This strategy is discussed in Cogan, Hubbard and Kessler (2011) (CHK), who examine the consequences of allowing taxpayers to deduct their OOPS. Their analysis examines the effect of eliminating the income but not payroll tax preference of EHI over OOPS.

As CHK show, the deduction for OOPS would have two opposing effects on the demand for medical services. It would reduce demand by removing the tax incentive that keeps employees in insurance plans subject to moral hazard. However, expanding deductibility also would increase demand by reducing the cost of health services overall (through the additional subsidy for OOPS) as opposed to other goods and services.

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<sup>17</sup> See, *e.g.*, Mercer Human Resources press release, <http://www.mercer.com/press-releases/1399495>.

Their key result is that the first effect would dominate the second. Using a midpoint of elasticity estimates, they estimate their proposal would reduce private health care expenditures by 6.2 percent, or \$63 billion in 2010 (see CHK, Chapter 3). This reduction occurs because the bulk of health spending is now inside health insurance plans, so that the gain from reducing moral hazard within those plans by encouraging employees to increase OOPS outweighs the increase in OOPS from individuals who would in any event pay for medical expenses with OOPS.

Even under very conservative assumptions, the deduction for OOPS would improve welfare. According to CHK, the budget cost of the deduction would be \$7 billion in 2010.<sup>18</sup> Of course, this is just a transfer; to translate the budget cost into welfare terms requires information about the cost of public funds. Even if it cost \$2 to raise \$1 in taxes -- an efficiency cost of 100 percent -- full deductibility would be welfare-enhancing as long as consumers valued the incremental \$63 billion in avoided health spending at less than \$56 billion.

## **EXPLORING DEDUCTIBILITY OF EXPECTED RATHER THAN ACTUAL OOPS**

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<sup>18</sup> The budget cost is surprisingly small because the fisc would actually save money when employees substitute OOPS for EHI. The reason for that is that OOPS is income-tax favored, while EHI benefits from both income and payroll exclusion. In addition, because OOPS is not subject to moral hazard, the substitution reduces total medical expenditures, and therefore reduces the total income tax subsidy. However, their proposal would make all OOPS deductible, including OOPS that is not now deductible and any increase in that portion of OOPS. The second effect would dominate the first.

On the margin, however, full deductibility as analyzed by CHK still gives a tax preference to OOPS over all other goods and services. Although the policy, on net, reduces health spending and improves welfare, a policy that avoided this distortion would be welfare-superior, all else equal. A second drawback of the full-deductibility idea is the increased administration costs that the policy imposes on taxpayers. Taxpayers would have to track and report their OOPS. This change would require (at a minimum) retaining year-end receipts from health care providers and pharmacies. It might also require taxpayers and others (such as pharmacies and the IRS) to devote resources to determining what constitutes a deductible medical expense. Using conventional estimates of the value of taxpayer time, every additional hour devoted to this task by the average taxpayer would impose an annual welfare cost of approximately \$300 million.<sup>19</sup>

A simple modification to the full-deductibility idea would address these downsides. Instead of allowing individuals to deduct their *actual* OOPS, individuals could be given a deduction equal to their *expected* OOPS. This change would render the deduction independent of the individual's actual choice of health spending, thereby eliminating the distortive effects of deductibility on the extensive margin. The change would also obviate the need for recordkeeping of OOPS and the associated filing costs.

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<sup>19</sup> There were approximately 144 million individual tax returns filed in 2009 (Treasury 2010b). Guyton, *et al.* (2009) use an imputed value of taxpayer time of \$20 an hour to calculate the 2000 tax burden.

A deduction for expected OOPS would also be simple to implement in practice. Insurance plans are typically characterized by three parameters: their premium ' $P$ ', their actuarial value ' $AV$ ', and their load ' $L$ '. The  $AV$  is the share of an individual's total health spending that a plan covers assuming a standardized population (*e.g.*, the country's average age, gender, and health status). Dorn (2009) shows that plans' actuarial values can be easily calculated by the IRS. The load  $L$  is the proportion of the health plan's spending on health services that is devoted to administrative costs; it is inversely related to the medical loss ratio (which all plans must begin to report as a result of the Patient Protection and Affordable Care Act of 2010).

The expected OOPS deduction, in turn, can be easily calculated from these three parameters. If the expected health spending of an individual with a given policy is equal to ' $S$ ', then the policy's expected OOPS is  $(1 - AV) \times S$ . Thus, because premiums ' $P$ ' are identically:

$$P = (1 + L) \times S \times AV,$$

expected OOPS are:

$$E(\text{OOPS}) = P \times (1 - AV) / (1 + L) \times AV.$$

As individuals reduce the actuarial value of their EHI, expected OOPS increase and individuals get a deduction equal to that expected OOPS.

Even with a deduction for expected OOPS, most individuals will continue to find it in their interest to use health insurance plans to administer their health

spending, rather than attempt to do it on their own. In doing so, individuals will continue take advantage of the insurer's better bargaining ability and greater quality control. For this reason, we would expect the increase in OOPS to come in the form of greater cost sharing for services purchased by the plan, rather than of the shifting of purchasing to outside the plan. Higher copayments would reduce moral hazard but, because the services would still be provided through the health plan, the prices paid to service providers could still be set by insurer's bargaining. Because the intent of the change is to encourage employees to switch out of inefficient EHI, one would expect the change to be limited to employees with EHI, or at least with health insurance. The budget cost of the policy would be lower, and incentives for insurance protection for catastrophic illness, would be greater. However, an argument could be made to expand the proposal to all individuals.<sup>20</sup>

The value of the expected deduction could be included on Form W-2. Employees or their preparers would have to transcribe this number on to their annual returns. Employees using e-filing programs with participating employers might be able to have this figure automatically populate the appropriate line on their return.

This modification shares with the policy analyzed in CHK a reduced distortion at the margin between EHI and OOPS. In the CHK idea, OOPS are

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<sup>20</sup> Extending the deduction for expected OOPS for individuals who do not have EHI or any form of health insurance could be advanced on equity. It would also serve an efficiency goal to the extent that it eliminated the incentive for OOPS over other items of consumption for individuals who were over the 7.5 percent (to become 10 percent) threshold.

deductible, eliminating the income (but not payroll) tax advantages of OOPS and allowing taxpayers to substitute OOPS for insurance made costly due to moral hazard. With the modification, here, the same effect is achieved by giving taxpayers a deduction equal to expected OOPS. But because the taxpayers decision to switch out of inefficient insurance is made on an *ex ante* basis, the fact that the payoff is based on *expected*, rather than actual should not matter very much. (We discuss below cases in which *ex ante* and *ex post* setups pose different incentives.)

In contrast to the policy analyzed in CHK, this modification does *not* reduce the cost of OOPS relative to other items of current and future consumption. An employee who chooses a (presumably more efficient) level of EHI receives a deduction based on expected, rather than actual OOPS. After the level of EHI is chosen, the OOPS deduction is fixed. There is no incentive to substitute OOPS for any other expenditure.

In addition, because the deduction is based on expected, rather than actual, expenses, taxpayers need not keep track of and document OOPS, avoiding additional recordkeeping and simplifying present law. As we noted, taxpayers are now able to deduct actual OOPS to the extent OOPS exceed 7.5 percent (to become 10 percent) of adjusted gross income. Taxpayers who expected to be over that figure must track and document OOPS. With *ex ante* deductibility, that recordkeeping would no longer be necessary. In 2008, approximately 10,155,000 taxpayers itemized medical expenses (U.S. Treasury, 2010a). Still other taxpayers presumably began keeping track of medical expenses, only to abandon the effort when it became

apparent they would not reach the 7.5 or 10 percent threshold. The elimination of the burden of recordkeeping and itemization for this population could offset any net filing burden imposed by this proposal.

#### **A. Effect on Welfare of Holders of EHI**

The main impact of allowing deductibility for expected OOPS is to make EHI holders better off relative to the policy analyzed by CHK.

There are two opposing effects. On one hand, moving from an *ex post* to an *ex ante* deduction makes EHI holders better off. Both *ex ante* and *ex post* deductions of OOPS give EHI holders the incentive to substitute away from inefficient EHI in return for an amount equal to the value of their increased OOPS deduction. With *ex post* treatment employees must actually spend money on OOPS in order to get that value. With *ex ante* treatment, employees may spend that money on OOPS. They can also choose to spend the tax savings on other goods or services—in effect, monetizing some portion of the value of the EHI income tax exclusion.

On the other hand, giving employees the value of expected, rather than actual, OOPS leaves EHI holders exposed to more risk. Under *ex post* deductibility, an individual who had unusually poor health would spend more on OOPS and receive a larger deduction. Under *ex ante* deductibility, the value of the deduction is fixed.

However, the extra risk sharing is unlikely to be significant because the primary means by which an employee would reduce EHI is to stay within an

employer plan but have a higher copayment. In the event of significant health expenses, copayments are generally reduced. As a result, as health worsens, OOPS will likely increase more slowly than total health costs. So in trading a deduction for actual OOPS for the expected value of that deduction, the employee loses risk sharing only modestly.

Nonetheless, particular individuals may be worse off under *ex ante* deductibility. Someone with poor health or a large family will have higher OOPS than his or her policy's *AV* would predict. As a result, the deduction for expected OOPs will be less attractive. The significance of this difference again will be limited by the fact, noted above, that copayments are generally reduced to zero for significant illness. This effect limits the difference between OOPS predicted (and offset with a deduction) by the standardized population in this proposal and the expected or actual OOPS experienced by this subset of the population.

The effect of deductibility of expected OOPS on employees with lower than expected health costs is analytically similar. For such employees, the deduction will overcompensate employees for reducing EHI by increasing copayments. This effect, however, will be moderated by the fact that copayments are reduced for serious medical conditions. As a result, the variance in health costs due the presence or absence of these conditions may have only a modest effect on OOPS.

## **B. Effect on Health Care Spending**

Because *ex ante* deductibility of OOPS both reduces the amount of EHI and the amount of OOPS relative to *ex post* deductibility, it reduces the amount spent on



medical services by comparison. This additional reduction is equal to the amount of spending avoided by eliminating the distortive effects of deductibility on the extensive margin. If the (OOPS-weighted) average marginal income tax rate is equal to  $t'$ , and the actuarial value of insurance policies with *ex post* deductibility of OOPS is equal to  $AV^*$ , then the increase in the overall price of health care in our proposal relative to CHK is approximately equal to  $(1 - AV^*) \times t$ .<sup>21</sup> If the price elasticity of demand for health services is equal to  $e'$ , then the additional reduction in spending is approximately equal to  $(1 - AV^*) \times e \times t$ .

Based on the parameters underlying CHK's calculations of consequences of tax policy changes with *ex post* deductibility of OOPS, this shift implies an additional reduction in health spending of 1 to 3.5 percent (with a midpoint of 2.3 percent).<sup>22</sup> Added to the reduction of health care expenditures of 6.2 percent estimated by CHK, this change results in a total expected reduction of 8.5 percent or about \$86 billion a year in 2010 dollars. Put another way, eliminating the subsidy to actual OOPS in CHK makes full deductibility around one-third more effective at reducing health spending.<sup>23</sup>

### C. Effect on Government Revenues

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<sup>21</sup> The decline is exactly equal to  $(1 - AV^*) \times e \times t'$ , where  $t'$  = the percentage change in the after-tax price of OOPS due to the extension of the tax deduction, evaluated at the average of the after-tax price before and after the OOPS deduction. Given that  $t = 0.14$ ,  $t' = 0.14 / ((1 + 0.86)/2) = 0.15$ .

<sup>22</sup> CHK use  $AV^* = 0.67$ ,  $t = 0.15$ , and  $e = [0.2, 0.7]$ .

<sup>23</sup>  $(86 - 63) / 63 = 0.37$ .

As CHK explain, deductibility has two effects on government revenues: a revenue *loss* from making previous taxable spending deductible, and a revenue *gain* from the shift away from previously deductible spending. Because *ex ante* deductibility would create the same revenue loss as *ex post* deductibility, but a larger revenue gain, it would have a lower budget cost.

The additional revenue gain from *ex ante* deductibility consists of the sum of two components: one from a reduction in overall health spending and one from a shift in how medical care is purchased. The first component consists of the extra income and payroll taxes that the government would collect on the EHI spending now paid as wages. Because *ex ante* deductibility results in an additional reduction in spending of 2.3 percent (or \$23 billion in 2010 dollars), then this change amounts to an additional \$8 billion in revenue.<sup>24</sup>

The second component consists of the extra payroll taxes that the government would collect on the spending on EHI that is redirected to out-of-pocket spending. Because *ex ante* deductibility results in a smaller increase in out-of-pocket spending than *ex post* deductibility, the second component is negative. (This observation is not surprising, because the primary rationale for substituting *ex ante* for *ex post* deductibility is the former's reduced impact on out-of-pocket spending.) We calculate that *ex ante* deductibility will result in \$17 billion being redirected from EHI to out-of-pocket spending (2010 dollars), as compared to \$62 billion for *ex post* deductibility. This shift therefore leads to a revenue loss of \$6 billion, which

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<sup>24</sup> Assuming a health-spending-weighted average marginal income tax rate of 0.19 and an average payroll tax rate of 0.13.

implies that *ex ante* deductibility would have a budget cost of \$2 billion (=\$8 billion - \$6 billion) less than *ex post* deductibility. In total, then, *ex ante* deductibility leads to a revenue loss of \$5 billion, as compared to \$7 billion for *ex post* deductibility.

## **CONCLUSION**

The tax preference for EHI contributes to the very high level of health spending in the United States. Although it is impossible to determine definitively whether the additional spending due to the preference is "worth it" in terms of the benefits to health that it provides, virtually all health policy analysts are skeptical that it is. Yet, despite the overwhelming policy arguments for repeal of the preference, political prospects for such a change do not appear overwhelming.

In this paper, we consider the consequences for health spending of an alternative approach to ending the tax bias toward employer-provided health insurance; extending the tax subsidy to all ways of purchasing insurance and to expected out-of-pocket expenses. This consideration builds on the analysis of Cogan, Hubbard, and Kessler (2011a), who examine effects on health care spending of a related idea extending tax deductibility to actual out-of-pocket expenses. These ideas would encourage holders of employer-provided health insurance to shift to higher-copayment health insurance by offering them the incentive of a tax benefit on their out-of-pocket expenses.

The change we analyze makes the size of the deduction independent of a taxpayer's actual health spending, thereby eliminating distortive effects of making actual out-of-pocket expenses deductible. In addition, by basing the deduction on easily verifiable features of insurance policies rather than on policyholders' actual out-of-pocket expenses, it reduces filing costs and the potential for abuse.

Such ideas are second-best solutions for reducing health care expenditures. Nonetheless, such ideas would almost surely be welfare-improving, even if the cost of public funds is high. We estimate that a tax reform including a deduction for expected out-of-pocket expenses would reduce private health spending by \$86 billion in 2010 at a budget cost of approximately \$5 billion. Even if the cost of raising \$1 of tax revenues were \$2, such a change would make consumers better off as long as they valued the incremental spending due to the tax preference for employer-provided health insurance at less than 94 cents on the dollar ( $86 - 5 / 86$ ).

Our analysis can be extended to ask how large of a tax preference for expected out-of-pocket expenses that individuals with employer-provided health insurance would have to be offered in order to induce them to purchase the optimal insurance policy, despite the income-and-payroll tax preference for employer-provided health insurance. According to Cogan, Hubbard, and Kessler (2007, 2011a, 2011b), repeal of the preference for EHI -- that is, a shift to the optimal insurance policy -- would result in a decline in private health spending of 13.4 to 46.9 percent (with a midpoint of 30.2 percent), depending on the magnitude of the price elasticity of demand for health services. A 30.2 percent decline in private health spending

could be achieved by giving expected out-of-pocket expenses an average tax preference of 43 percent.<sup>25</sup> Achieving this effect in perspective would require a

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<sup>25</sup> We know from Cogan, Hubbard, and Kessler (2007, 2011a) that the effect on health spending of any arbitrary tax subsidy to out-of-pocket spending is

$$e \times (1 - \eta) \times \dot{t},$$

where 'e' is the price elasticity of demand for health services,  $\eta$  is the elasticity of the coinsurance rate with respect to the tax preference for insured spending, and  $\dot{t}$  is the percentage change in the after-tax price of out-of-pocket spending from the tax subsidy. In Cogan, Hubbard, and Kessler, we calculate the decline in spending assuming  $\eta = 1.9$  for  $\dot{t} = -0.15$ , which corresponds to granting out-of-pocket spending deductibility from the income tax but not the payroll tax.

However, one can also calculate the out-of-pocket spending deductibility from the tax subsidy that would achieve an arbitrary health spending reduction, given  $e$  and  $\eta$ . That is, *without regard to an EHI holder's marginal tax rate*, how large of a tax subsidy would we have to grant to achieve an arbitrary reduction in health spending? In particular, one can determine the out-of-pocket spending tax subsidy that would be equivalent in spending terms to full repeal of the tax preference. For example, at  $e(p) = -0.45$ , a 30.2 percent decline in spending could be achieved by the OOPS subsidy  $t^*$  that is the solution to

$$-0.302 = -0.45 \times -0.9 \times [-2t^* / (2 - t^*)],$$

or

$$t^* = 0.543,$$

where  $2t^* / (2 - t^*)$  is the percentage change in the post-tax price of out-of-pocket spending (evaluated at the average price), starting from a price of 1 and ending at a price of  $(1 - t^*)$ . Moreover, because the effect on spending of full repeal of the tax preference is proportional to  $e$  (see Cogan, Hubbard, and Kessler, 2007, 2011a), the equation above implies that the  $t^*$  that would be equivalent to full repeal is invariant to  $e$ . Thus, for any  $e$ , fully undoing the tax preference for insurance requires the government to grant OOPS a subsidy approximately twice as great as the (27-percentage-point) income and payroll tax exclusion. This estimate is consistent with that of Jack and Sheiner (1997).

How would this analysis change, if instead of subsidizing individuals' actual out-of-pocket expenses, one subsidized their expected out-of-pocket expenses? As discussed above, the additional decline in health spending from subsidizing expected out-of-pocket spending rather than actual out-of-pocket expenses, over and above the original effect estimated by Cogan, Hubbard, and Kessler, is

$$(1 - AV^*) \times \dot{t} \times e.$$

Thus, the expected out-of-pocket spending subsidy that would be equivalent to repeal of the tax subsidy at  $e(p) = -0.45$  is the solution to

$$-0.302 = \{-0.45 \times -0.9 \times [-2t^* / (2 - t^*)]\} + \{0.33 \times [2t^* / (2 - t^*)] \times -0.45\},$$

or

$$t^* = 0.431.$$

preference for expected OOPS approximately triple the (out-of-pocket expense-weighted) average income tax rate or 160 percent of the (out-of-pocket expense-weighted) average income-plus-payroll tax rate.<sup>26</sup>

These ideas may also be considered in the context of the Patient Protection and Affordable Care Act. Although the Act contains numerous provisions designed to expand coverage, it does not fundamentally alter the incentives of most existing holders of employer-sponsored insurance to consume excessive amounts of medical care. Offering an additional deduction to individuals with employer-provided insurance effectively to "buy them out" of their tax-induced wasteful behavior would enhance cost control.

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Because the additional decline in health spending from subsidizing expected rather than actual out-of-pocket spending is also proportional to  $e(p)$ , the *expected* out-of-pocket spending tax subsidy is invariant to  $e(p)$  just as is the *actual* subsidy. That is, if the government subsidized expected (rather than actual) out-of-pocket expenses, it would have to subsidize taxpayers at 160 percent of their (27-percentage-point) income and payroll tax exclusion.

<sup>26</sup>  $3 \approx 43 / 14$ ;  $1.6 \approx 43 / (14 + 13)$ .

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**Table 1– Tax Expenditure on the Employer-Sponsored-Insurance Exclusion, by Adjusted Gross Income, 2007**

<b>Adjusted Gross Income</b>	<b>Total Tax Expenditure (millions \$)</b>	<b>Income Tax Expenditure (millions \$)</b>	<b>FICA Tax Expenditure (millions \$)</b>	<b>Total Tax Returns (thousands)</b>	<b>Average Expenditure Per Return (dollars)</b>
< 10,000	4,185	-481	4,666	6,692	625
10,000 – 29,999	38,860	20,095	18,765	19,355	2,008
30,000 – 49,999	45,696	24,451	21,245	18,261	2,502
50,000 – 74,999	49,075	26,471	22,604	15,798	3,106
75,000 – 99,999	39,713	24,343	15,370	9,998	3,972
100,000 – 199,999	51,984	36,999	14,985	11,543	4,504
200,000 – 499,999	13,104	10,685	2,419	2,828	4,634
> 500,000	3,455	2,785	670	788	4,385
<b>Total</b>	<b>246,072</b>	<b>145,348</b>	<b>100,724</b>	<b>85,263</b>	<b>2,886</b>

Notes: Negative amounts reflect the fact that the exclusion reduces earned income for purposes of the earned income credit, resulting in a decrease in refundable credits for some recipients.

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Source: *Joint Committee on Taxation* (2008), Table 2.