

The Impact of Fundamental Tax Reform on Employer-Provided Health Insurance

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Current tax reform proposals call for expanding or redefining the tax base and eliminating many current tax expenditures. These proposals would reduce the incentives for taxpayers to engage in activities that are currently tax-favored, including the provision of fringe benefits. The two largest employer-provided fringe benefits are employee health insurance and pension plans, each of which reduces current federal income tax revenues by nearly \$60 billion per year. This paper focuses on the consequences of fundamental tax reform for employer-provided health insurance. In 1993, employer-provided health insurance accounted for 6.2 percent of total compensation costs.

Most of the current tax reform proposals, including the flat tax proposal by Rep. Richard Armey, R-Texas, and Sen. Richard C. Shelby, R-Ala., the national retail sales tax proposal by Sen. Richard Lugar, R-Ind., and the "USA Tax" suggested by Sens. Sam Nunn, D-Ga. and Pete V. Domenici, R-N.M., would eliminate the favorable income tax treatment that is currently afforded to employer-provided health insurance. Many academic studies have argued that by lowering the after-tax price of insurance, current tax policy leads to "over-insurance." Over the past 25 years, medical care spending as a share of GNP has doubled — possibly as a result of households purchasing more insurance than they would if the tax law did not provide a subsidy. Research also suggests that individuals and firms (especially

small firms) are sensitive to health insurance costs. Raising the after-tax price of health insurance could therefore reduce the number of individuals with such insurance.

A Framework for Measuring the Current Tax Subsidy

To define the tax subsidy to employer-provided health insurance, consider an individual with a federal marginal income tax rate on earned income of T , a net-of-federal tax state income tax rate of T_s , and statutory employer and employee rates of payroll tax each equal to T_{ss} . Assume that labor income taxes and payroll taxes are fully borne by labor, so that when an employer purchases insurance for E dollars, the employee's wage is reduced by $E/(1+T_{ss})$. The change in the employee's after-tax wage income per dollar of employer-provided insurance is therefore $(1-T-T_s-T_{ss})/(1+T_{ss})$. Many previous studies of taxation and employer-provided health insurance have used this expression to define the tax subsidy to employer-provided insurance.

While the after-tax wage reduction per dollar of employer-provided insurance is a key factor determining the after-tax price of the health insurance, two other factors also affect the relative price of employer-provided insurance versus self-insurance. The first is the load factor on health insurance. The load factor affects the level of our cost measure, but does not substantially affect our estimates of how tax reform would affect insurance demand.

The current tax system reduces the marginal after-tax price of employer-provided health insurance by 27 percent.

The second factor influencing price is the substantial and rising fraction of the premiums for employer-provided insurance paid by employees. Employee contributions to group health insurance totaled \$46.2 billion in 1993, or nearly twenty percent of employer contributions. Data from various Bureau of Labor Statistics surveys suggest that approximately three-quarters of these employee premiums are paid after-tax. Because those employees who must make post-tax contributions to their employer-provided insurance receive favorable tax treatment on a smaller fraction of their health insurance than those employees whose insurance is fully provided by the employer, the presence of employee contributions raises the after-tax price of employer provided health insurance.

The after-tax price of insurance can be measured net of the cost of employee payments for employer-provided insurance.¹ For itemizers and potential itemizers, the cost of

¹The article is a condensed version of an article by the authors that will be published by the Brookings Institution. The longer article, *Fundamental Tax Reform and Employer-Provided Health Insurance*, Fundamental Tax Reform (H. Aaron and W. Gale, eds. 1996) (hereinafter Brookings article), describes in greater detail the methodology underlying the calculations discussed here.

self-insurance is affected by the possibility of claiming an itemized deduction for medical expenses in excess of 7.5 percent of AGI; the availability of the itemized deduction reduces the after-tax cost of out of pocket medical spending and hence self-insurance.

Evaluating the Tax Subsidy

To evaluate the after-tax price of health insurance relative to self insurance, we use the National Bureau of Economic Research's TAXSIM program to impute tax rates to family units in the 1987 National Medical Expenditure Survey (NMES). The detailed information on health insurance and health care spending in this data base is then used to analyze current tax subsidies to employer-provided health insurance and the potential consequences of various tax reforms. Individual NMES respondents are aggregated into "health insurance units": the family head, his or her spouse, any children under age 19, and full-time students until they reach age 23. Our sample is restricted to employed individuals in households without any members over the age of 65, and it excludes families with anyone who is covered by Medicaid or missing any information on insurance status.

An important source of the current subsidy to employer-provided health insurance purchases is the exclusion of these purchases from the Social Security/Disability (OASDI) and Medicare (HI) payroll taxes. Social Security provides a subsidy only to those with earnings below the taxable maximum of \$60,600, while Medicare subsidizes all employees. Unlike federal and state income taxes, however, higher payroll taxes are associated with higher future Social Security benefits for many workers. If reduction of the current tax subsidy to employer-provided health insurance led workers to demand less insurance, and firms correspondingly increased taxable wage payments, then workers would be liable for higher payroll taxes but their Social Security benefits calculation would also be based on a higher stream of earnings. In evaluating the net cost of the payroll tax, we therefore compute the present discounted value of payroll taxes net of prospective benefit increases under current benefit rules.²

Table 1 summarizes the current tax subsidy to employer-provided insurance and reports the average value of the after-tax relative price of employer-provided insurance under the current tax system. The first few rows show the various marginal tax rates that enter the calculation of the after-tax price of health insurance. For employed individuals with employer-provided insurance, the weighted average, marginal, federal income tax rate in 1994 was 21.9 percent; state taxes contribute an additional 3.5 percent.

The statutory (combined Social Security, Disability, and Medicare Hospital Insurance) payroll tax rate was 7.4 percent, slightly lower than the statutory rate of 7.65 percent because some individuals earn above the maximum taxable amount. However, because both employees and employers pay the payroll tax, this tax is roughly two-thirds as important as the income tax in contributing to the tax subsidy to employer-provided health insurance. The benefit-tax linkage rate is .064, so the net payroll tax rate is $2 \times .074 - .064 = .084$.

Table 1: Tax Subsidy to Employer Provided Insurance, Current Law and Proposed Tax Reforms

	Average Value for Employed, Insured Workers
Marginal Federal Income Tax Rate	0.219
Marginal State Income Tax Rate	0.035
Payroll Tax Rate	0.148
Benefit Offset to Payroll Tax	0.064
Marginal After-Tax Cost of Employer Provided Health Insurance:	
— No Tax World	1.101
— 1994 Tax Law	0.806
— Arney Flat Tax, National Sales Tax	0.972
— Nunn-Domenici "USA Tax"	1.111

Source: Brookings article. Entries reflect averages in the population of employed insured workers, based on data from the National Medical Expenditure Survey for 1987.

When we combine the tax rates with our estimate of the load factor on employer-provided insurance and information on the share of employer-provided health insurance premiums that are tax deductible, we estimate that the average after-tax marginal price of employer-provided health insurance is .806. In the absence of any tax distortions, this price would be 1.101. The current system of income and payroll taxes thus reduces the marginal after-tax price of employer-provided health insurance, relative to self-insurance, by approximately 27 percent.

Now consider how the after-tax price of employer-provided health insurance would be affected under the Arney-Shelby flat tax, the national retail sales tax, and the Nunn-Domenici "USA Tax." Throughout our analysis we assume that state income taxes are not affected by federal tax reform, but if they were, this would make the effects described below even larger. The key difference between Arney-Shelby or the National Retail Sales Tax, and the USA Tax, is that the latter two proposals provide a payroll tax credit. This credit largely undoes the current subsidy effect of the payroll tax, so that under the USA Tax, virtually all of the tax subsidy would disappear and, except for possible state income tax subsidies, the relative price of employer provided health insurance would be similar to that in a world with no income taxes.³

¹In J. Gruber and J. Poterba, *Tax Subsidies to Employer Provided Health Insurance*, Empirical Foundations of Household Taxation (M. Feldstein and J. Poterba eds. 1996), the central comparison developed is between the after-tax price of employer provided health insurance and the after-tax cost of self insurance.

²The calculations use information from M. Feldstein and A. Samwick, *Social Security Rules and Marginal Tax Rates*, National Tax Journal (1992).

³In the Brookings article, the authors discuss the fact that the USA Tax provides a credit for the full statutory payroll tax. With benefit-tax linkage, however, the effective tax burden is only a fraction of the statutory rate, which can lead to a tax on employer provided health insurance vis-a-vis out-of-pocket medical spending.

The penultimate row of the table shows the effect of eliminating the federal income tax wedge between wage income and employer-provided health insurance, as under the Arme-y-Shelby plan or the National Retail Sales Tax. The marginal after-tax cost of employer-provided insurance averages 0.972 for currently employed insured workers, which corresponds to a 12 percent subsidy relative to the no-tax value. Imposition of the Arme-y-Shelby plan or the National Retail Sales Tax would result in a 21 percent price increase relative to the current after-tax price of employer-provided insurance. The substantial tax subsidy to employer-provided health insurance that remains under these income tax reform plans is primarily due to the continued exclusion of employer-provided health insurance from the payroll tax base.

The last row in the table presents an estimate of how the USA Tax would affect the after-tax price of employer provided health insurance. For employed insured individuals, the after-tax price rises to 1.111, actually higher than the price in a no-tax world. This price rise occurs because the payroll tax credit offsets the statutory payroll tax rate and, in effect, over-corrects for the payroll tax net of benefit linkage. The USA Tax therefore raises the average after-tax cost of health insurance by approximately 38 percent.

Tax Reform and the Demand for Insurance

These calculations suggest that current proposals to alter the federal tax structure could substantially reduce the tax subsidy to employer-provided health insurance. To assess how the subsidy changes could affect the demand for employer-provided insurance, we must make some assumption about how the amount of health insurance spending will respond to price changes. It is particularly important to distinguish between the component of spending response that is due to a change in the number of individuals with insurance coverage, and that due to a change in spending by those who are insured both before and after tax reform. Unfortunately, there is little empirical evidence to guide this decomposition. Many studies have estimated the elasticity of demand for total insurance spending and for insurance coverage, but no previous study has considered both effects simultaneously. Moreover, these studies have produced a broad range of estimates without a consensus figure to use for illustrative computations.

Our calculations below consider two cases, one in which the overall insurance demand elasticity is -0.5, and the coverage elasticity is -0.3, and another in which the overall demand elasticity is -1.0, with a coverage elasticity of -0.5. To place the following calculations in context, it is helpful to note that tabulations from the March 1994 Current Population Survey (CPS), reported by the Employee Benefits Research Institute (EBRI),⁴ found that in 1993, 69.7 percent of the population under the age of 65 had private health insurance coverage, with 60.8 percent of the population covered through an employer-provided health insurance plan. Another 16.1 percent had public health in-

surance, while 18.1 percent reported that they had no health insurance.

For the Arme-y-Shelby proposal or the National Retail Sales Tax, with the first (lower) set of elasticities, the reduction in the tax subsidy to employer-provided insurance is predicted to result in an 11.7 percent decline in total spending on employer-provided health insurance, and a 6.4 percent, or 8.6 million person, decline in insurance coverage. With the second set of elasticity parameters, the predicted effects of these proposals are larger: a 23.4 percent decline in insurance spending, and a 10.7 percent decline (14.3 million person drop) in the number of persons covered by employer-provided health insurance.

The demand effects that are predicted to follow from the USA Tax are even larger than those from the Arme-y proposal. With the smaller set of elasticities, the estimates imply a 19.1 percent drop in employer-provided insurance spending, and a 10.8 percent (14.4 million person) drop in insurance coverage. With the larger elasticity values, these changes rise to a 38.3 percent decline in insurance spending, and a 24.1 million person decline in the number of employees with employer-provided insurance.

The foregoing analysis treats employer provided health insurance as having only two dimensions: coverage, and quantity purchased conditional on coverage. In practice, this is a dramatic simplification, since health insurance is a very heterogeneous product, with many distinct features that might respond to price changes in different ways. Unfortunately, there is virtually no empirical evidence on how changes in the after-tax price of health insurance affect policy characteristics. Any discussion of this issue is therefore speculative. One possibility, discussed in the Brookings article, is that tax reform that raises the after-tax price of employer-provided health insurance would reduce the demand for some types of "auxiliary care coverage" that is currently included in many employer health plans, such as dental coverage, vision coverage, and similar provisions.

These proposals seem likely to reduce spending on employer provided health insurance, and to lead to a decline in the number of individuals who are covered by such insurance.

One of the central issues associated with tax reform and the health insurance marketplace is whether reducing the tax subsidy to employer provided insurance would lead to a systematic shift away from workplace pooling of health insurance risks. Such a shift would have far-reaching implications for health insurance more generally, ranging from changes in the cost of some employer provided benefit plans to an increase in market segmentation and potentially in the number of individuals who are unable to obtain insurance.

Pooling health insurance risks through the workplace is attractive for more than just current tax benefits. Because most workplace pools are large, they are able to take ad-

⁴EBRI Databook on Employee Benefits, p. 239 (1995).

vantage of the economies of scale in insurance buying as well as the administrative savings that result from use of payroll systems to process individual contributions to group health insurance policies. Because workplace groupings are largely determined by factors unrelated to health status, insurance through the workplace avoids many of the adverse selection problems that arise in other types of insurance purchasing environments.

As a result of these factors, the Congressional Research Service⁵ estimates that the cost of insurance for small groups, those with less than five persons, is 35 percent more than the cost for groups with 10,000 or more members. While workplace pooling might continue even if the tax subsidy to employer provided insurance were curtailed, the higher after-tax cost of such insurance might lead to a shift toward more basic coverage, possibly with increased workplace segmentation in the set of workers participating in particular health insurance plans.

Conclusion

Our analysis suggests that the Arney-Shelby flat tax and the National Retail Sales Tax would reduce the current tax subsidy to employer provided health insurance by slightly more than one-half. Neither plan eliminates the current tax incentive to employer-provided health insurance, however, because the payroll tax subsidy to this insurance remains intact.

The combined employer and employee payroll tax rate of 15.3 percent, even when reduced by consideration of the link between taxes and benefits, represents a substantial subsidy and one that would encourage the present system of employer-provided insurance even after fundamental tax reform. State income taxes, which currently follow the federal income tax treatment of employer-provided insurance benefits and might continue to do so even after modification of the federal income tax code, would also continue to encourage employer provided insurance.

The USA Tax would essentially eliminate current tax subsidies to employer-provided health insurance because it eliminates the federal income tax incentive for employer-provided health insurance as well as the payroll tax subsidy to this insurance. Any of these proposals seem likely to reduce spending on employer provided health insurance, and to lead to a decline in the number of individuals who are covered by such insurance. Our illustrative calculations suggest that these effects could be substantial, particularly under the USA Tax.

⁵*Costs and Effects of Extending Health Insurance Coverage*, Congressional Research Service (1989).



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