TEACHING NOTE:

LET'S STOP PROFESSING THAT THE LEGAL INCIDENCE OF THE SOCIAL SECURITY TAX IS IRRELEVANT

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> The division [of the legal incidence of the Social Security tax] has a long history and is a consequence of our lawmakers' feeling that the payroll tax should be shared equally by employers and employees. It is important to realize that the *statutory distinction between workers and bosses is irrelevant.* As suggested earlier, the incidence of this labor tax is determined only by the wedge the tax puts between what employees receive and employers pay.
>
> Harvey Rosen [1995, 285; italics in the original]

> Whenever Social Security taxes are raised, there is a furor in the legislature about how to divide the legal incidence.... [Should the taxes] be paid entirely by employees, entirely by firms, divided equally or divided in some other way?....The resolution ultimately makes not one bit of difference to anybody.
>
> Steven E. Landsburg [1995, 26-27]

INTRODUCTION

Economists have long argued that a tax's *legal* incidence is irrelevant for its *economic* incidence. Textbook authors frequently use the U.S. Social Security levy to explain this proposition. The frequency probably traces to the "fairness" connoted by the levy's 50/50 split in legal incidence between employers and employees. We economists delight in popping "fairness" balloons.[1]

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FIGURE 1
Incidence of Social Security Tax

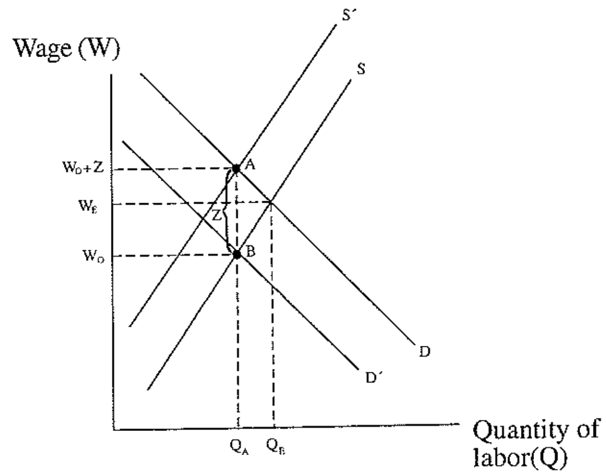

Figure 1 presents the textbook authors' argument. Let D and S be the demand and supply of labor in the absence of a Social Security levy. Pre-levy wage and employment levels are W_E and Q_E. Were legal incidence solely on employees, for example, S shifts up by the levy (say, Z) so that the levy-altered supply schedule (S') intersects D at point A. Were legal incidence entirely on employers, D shifts down by Z so that the levy-altered demand schedule (D') intersects S at point B. Either way, employment is Q_A, wage net-of-levy is W_O, and wage inclusive of the levy is $W_O + Z$. Economic incidence turns solely on how demand and supply elasticities distribute the tax wedge between employers and employees. Market participants, goes the argument, should be indifferent about the levy's legal incidence.[2]

AN ACHILLES' HEEL

Notwithstanding the above, the Social Security levy is a bad example of the irrelevance of legal incidence. Like many other taxes, the Social Security levy is subject to asymmetric treatment in the federal income tax code. The portion of the levy for which employees are liable is *not deductible* for federal income tax purposes, but the employers' portion *is deductible* in determining taxable business income.[3]

This asymmetry is the Achilles' heel of the Social Security example because the levy's magnitude means a worker's take-home pay can be significantly affected by change in legal incidence. Contrary to what textbook authors so definitively assert, workers may have good reason to care about legal incidence. Given current personal income tax rates, take-home pay can increase by as much as $3,565 as the Social Security levy's legal incidence goes from the employee end of the legal incidence spectrum to the employer end.[4]

The Social Security levy is currently 12.4 percent on a worker's first $72,600 annual income. Suppose Mr. Smith's income exceeds the $72,600 maximum and that he faces the maximum marginal income tax rate (39.6 percent). A move along the legal incidence spectrum from all-employee to all-employer decreases Smith's taxable income by $9,002 (i.e., $72,600 times the 12.4 percent social security tax rate).[5] With Smith's marginal personal income tax rate at 39.6 percent, the shift of legal incidence raises his take-home pay by $3,565.

Dismissing legislative "furor" over the legal incidence of this levy is tantamount to claiming that workers have a "take it or leave it" attitude towards additional annual take-home pay of up to $3,565. At a 4 percent interest rate, this amount when capitalized over fifteen years has a present value of $39,637. Lower marginal income tax rates reduce the potential increases in take-home pay. Nevertheless, employees in all brackets would benefit by shifting legal incidence to their employers.

FINAL COMMENT

We see two ways for professors to avoid this difficulty. First, use a tax where the asymmetry is absent. State/local income taxes are such a tax because workers can deduct them on their federal returns. Alternatively use a tax where the asymmetry is of little consequence. A federal tax on, say, pencils would work because its legal incidence would have inconsequential effects on taxable personal income.

NOTES

1. In addition to Rosen [1995] and Landsburg [1995], see Browning and Browning [1994], Browning and Zupan [1997], Ehrenberg and Smith [1994], Friedman [1996], Musgrave and Musgrave [1989], and Silberberg [1995].
2. Three simplifying assumptions underlie economists' diagrammatics: 1) although the social security tax is an *ad valorem* tax, they treat it as a per unit tax; 2) workers regard social security taxes and benefits as independent; 3) the earnings limitation of the social security tax (currently $72,600) is ignored. Our discussion adopts these assumptions. For an analysis that assumes that benefits and tax payments are *not* independent, see Lee [1996]. For an analysis of the earnings limitation, see MacRae and MacRae [1976].
3. To our knowledge, Holmlund [1981] first investigated this asymmetry. However, his technical note fails to make obvious the empirical importance of this asymmetry. Perhaps this explains why, with the exception of a footnote in Stiglitz's [1988] public finance textbook, textbook authors evidence no awareness that the asymmetry undermines their almost rote use of the Social Security levy to illustrate the irrelevance proposition.
4. Including state/local income taxes in the calculations increases the potential variation in take-home pay.
5. The $9,002 figure corresponds to Z in Figure 1.

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