

ward shifting of the employer portion of social security taxes.⁶ On the benefit side, some estimates considered only the combined retirement benefits for the worker and his wife. Finally, tax-benefit relationships have been estimated in current dollar terms with a certain assumed rate of interest for compounding taxes and discounting benefits.

However, (1) the maximum earner is not the typical; the case of the worker whose earnings are near the average taxable earnings (in short, the average earner) needs to be investigated; (2) the assumptions of both no-backward shifting and full-backward shifting of the employer social security taxes are extreme (it would be instructive to consider the possibility of partial-backward shifting); (3) since different family circumstances occasion varying benefit payments, tax-benefit relationships need to be computed for persons of diverse family statuses;⁷ and (4) tax-benefit relationships in current dollar terms are significantly altered if they are recomputed in constant dollar terms. When taxpayments and benefits recipients span long periods of time, price inflation becomes a very important consideration. The allowance of price inflation has the effect of raising the rate at which

⁶ The judgment on the shiftability of the employer portion of the social security taxes is a difficult one. While the Social Security Administration (SSA) estimates ignored the employer tax, studies by Campbell & Campbell (C. & C.) assumed that the worker bears the full burden of the employer tax. Since the relationship between taxes and benefits is importantly affected by this assumption, the question warrants some discussion.

Both SSA and C. & C. considered the question of backward shifting in the form of lower wages to the workers—with SSA completely rejecting it and C. & C. fully accepting it. Apparently, neither SSA nor C. & C. entertained the possibility of forward shifting in the form of higher prices. Nor did they discuss the possibility of backward shifting in the form of lower prices to the suppliers of other productive agents.

It is a reasonable assumption that an employer will attempt to shift his taxes onto someone else—either forward to the consumer by means of higher prices, or backward to the worker in the form of reduced wages, or backward to the owner of factors of production, other than labor. In the process of shifting, however, the employer encounters many obstacles in both the product and the factor markets. Given time, it would be comparatively easier for the employer to overcome these interferences. Since workers are consumers, they may bear part of the employer taxes as both employees (in backward shifting) and as consumers (in forward shifting). In the long run, therefore, labor as a group would most likely bear a substantial part of the taxes formerly paid by the employers. To the extent forward shifting occurs, employers themselves will bear part of the burden as well in their capacity as consumers. Moreover, to the extent forward shifting takes place, persons not covered by social security will bear part of the burden of the employer taxes.

While the *exact* extent to which the employer taxes are shifted to the workers remains uncertain, the *exact* amount each individual worker bears the taxes, shifted by his employer, is even more uncertain. Uncertainty arises, because (1) the employer may "over-shift" (i.e., passing on more than the taxes he paid) or "undershift" (i.e., passing on less than the taxes he paid); (2) the extent to which workers *qua* consumers bear the burden depends, among other factors, on their individual consumption patterns; and (3) the extent to which workers *qua* employees bear the burden depends on the specific time and place of their employments.

Even though it is impossible to ascertain the precise amount of the employer tax that falls upon the worker, it seems unreasonable to assume that no such shifting takes place. On the other hand, the assumption that the entire amount of the employer taxes is automatically borne by the worker, too, appears stringent. In this study, estimates of tax-benefit relationships are presented with three assumptions concerning the extent to which a worker bears the employer taxes—no-backward shifting, full-backward shifting, and half-backward shifting. Possibly, more than half-backward shifting occurs.

⁷ Family statuses are a significant factor in considering tax-benefit relationships. In 1966, out of a total of approximately 3.3 million benefit awards (excluding some 750,000 awards to persons with special age 72 benefits), about one-half of them were awarded to retired workers. Approximately 12 percent of the awards went to wives and husbands, including wife beneficiaries, under age 65 with children in their care, and entitled divorced wives. The remainder, about 38 percent of the total benefit awards, were awarded to children, widowed mothers, widows and widowers, and dependent parents. *Social Security Bulletin*, vol. 30, No. 8, August 1967, p. 32.