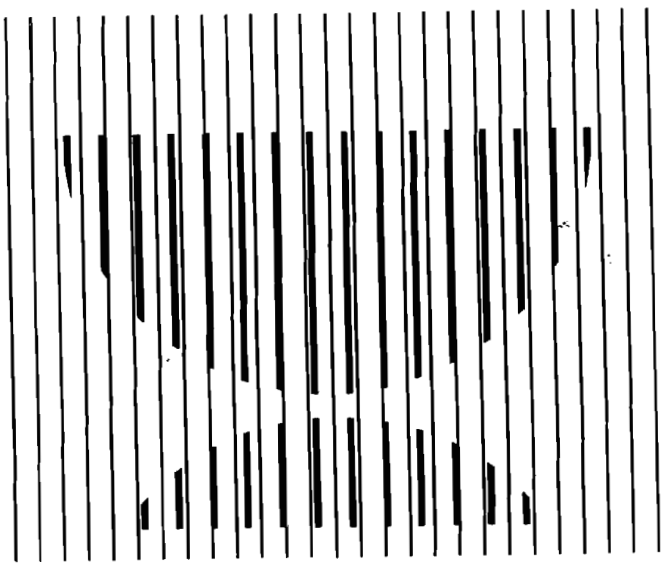
CBO STAFF MEMORANDUM

DISTRIBUTIONAL EFFECTS OF SUBSTITUTING A FLAT-RATE INCOME TAX AND A VALUE-ADDED TAX FOR CURRENT FEDERAL INCOME, PAYROLL, AND EXCISE TAXES

April 1992



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At the request of Senator Bentsen, the Congressional Budget Office (CBO) has simulated the effect on families' federal taxes and after-tax income of substituting a combination of a flat-rate income tax and a value-added tax (VAT) for present federal income, payroll, and excise taxes (excluding excise taxes levied on tobacco and alcoholic beverages). The changes were simulated at 1989 income levels using income and payroll tax rates in effect in 1992.[1] The flat-rate income tax and the VAT rates were set so as to yield no net change in the federal deficit in combination with the simulated elimination of those existing federal taxes.[2]

As specified in the request, the simulated flat-rate income tax is levied on the income tax base as defined for the present personal income tax, except that all Social Security benefits, unemployment insurance benefits, and other transfer payments are tax-exempt. Existing income adjustments and itemized deductions are eliminated, as are personal exemptions, the standard deduction, and all credits. Rent payments, home mortgage interest, and charitable contributions, however, are deductible from taxable income.

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1. 1989 is the most recent year for which complete income data are available.

2. The rates for both are 16 percent. They depend on the definition of the tax base and the year of the simulation and could be higher or lower if either of those were changed.

The tax base for the simulated VAT excludes medical care, education expenditures, and contributions to religious and charitable organizations.[3] The value-added tax is assumed to raise the price of taxable goods and services, so the burden of the tax was allocated in proportion to family consumption of taxed goods and services. The higher prices for those goods also raise the aggregate price level, triggering an increase in such indexed transfer payments as Social Security benefits and Supplemental Security Income payments. The simulation incorporates the increased personal income from such indexation.

In the simulation, the benefits of eliminating existing federal income, payroll, and excise taxes are distributed to families based on assumptions about who bears the burden of each tax. Although some federal taxes are paid by corporations, noncorporate businesses, and even nonprofit institutions, the economic burden of all taxes ultimately falls on families and individuals. Taxes may reduce family income directly through higher individual income or employee payroll taxes, or they may reduce family income indirectly either through higher taxes paid by businesses or by causing prices to rise, thereby reducing the purchasing power of family income.

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3. The base was the zero-rated merit goods base defined in the recent CBO study, *Effects of Adopting a Value-Added Tax* (February 1992).

The benefit of eliminating individual income taxes is attributed to families who directly pay the tax. The benefit of eliminating federal payroll taxes--including both the employer's and the employee's share--is allocated to employees in proportion to the tax on their earnings. That allocation assumes that the employer's share lowers wages in the long run. The benefit of eliminating the corporate tax is allocated to recipients of realized capital income (the sum of rents, interest, dividends, and realized capital gains) in proportion to their capital income.[4] That allocation assumes that the relative pretax returns of all assets change so as to shift the burden of the corporate tax from corporate shareholders to all recipients of income from capital.

Because eliminating employer payroll taxes and corporate income taxes would raise family incomes, the tax base for the flat-rate income tax is larger than the base for existing federal individual income taxes.

4. These assumptions about tax incidence are the same as the assumptions used for the value-added tax simulations in *Effects of Adopting a Value-Added Tax.*

TABLE 1. DISTRIBUTIONAL EFFECTS OF SUBSTITUTING A FLAT-RATE INCOME TAX AND A VALUE-ADDED TAX FOR CURRENT FEDERAL INCOME, PAYROLL, AND EXCISE TAXES
(At 1989 Income Levels Assuming 1992 Tax Rates)

	Income After Tax		Effective Tax Rates	
Income Quintile[a]	Average	Percentage Change	1992 Tax Law	After Change
Lowest	6,700	-21.7	7.7	27.7
Second	14,800	-11.0	15.2	24.5
Middle	23,100	-5.3	19.1	23.4
Fourth	32,400	-1.3	21.7	22.7
Highest	70,300	6.8	26.7	21.7
All Quintiles	29,200	0.0	23.1	23.1

SOURCE: Congressional Budget Office.

a. Families are ranked by adjusted family income (pretax income from each family divided by the 1989 poverty threshold for a family of that size). Pretax family income is the sum of wages, salaries, self-employment income, rents, taxable and nontaxable interest, dividends, realized capital gains, and all cash transfer payments. Income also includes the employer's share of Social Security and federal unemployment insurance payroll taxes, and corporate income taxes. Quintiles contain equal numbers of people. Families with zero or negative income are excluded from the lowest income category but included in the total.

One measure of the distributional effect of a change in tax policy is the resulting percentage change in after-tax income. As shown in Table 1, CBO's simulation of substituting a flat-rate income tax and a VAT for existing federal income, payroll, and excise taxes indicates that overall, the change in taxes would be regressive. After-tax income for families in the bottom four-fifths

of the income distribution would decrease, with the largest decrease for families in the bottom fifth. After-tax income for families in the highest fifth of the income distribution would increase.

Families in the bottom one-fifth pay relatively little in combined income and payroll taxes compared with other families. Many low-income families actually receive subsidies from the income tax rather than pay taxes because of the earned-income credit. Thus, low-income families would receive little tax relief from eliminating income and payroll taxes. In contrast, in any given year, many of these families spend much more than their annual income, financing such spending by borrowing or selling assets. These families would pay a significant portion of their income in value-added taxes.

The change in progressivity can also be measured by the change in effective tax rates--the percentage of pretax family income paid in federal taxes. The combination of a flat-rate income tax and a VAT would lower the effective tax rate for families in the top quintile but would raise the effective tax rate for families in the bottom four quintiles. For families in the lowest quintile, the effective tax rate would rise by 20 percentage points.

Because some portion of families with low incomes in a single year are not low-income by other standards, the decrease in progressivity measured by

changes in after-tax income and effective tax rates based on a single year's income overstates the change over a typical family's life. Some elderly families, for example, are able to sell assets to pay for spending that exceeds income; value-added taxes would take up a larger share of the income of such families than it would for families that finance spending entirely from their annual income. The same is true for young families who borrow against future income to pay for current consumption. Value-added taxes would, therefore, appear to be more regressive than they are because low-income families who can pay for spending from existing wealth or from future high earnings are not necessarily poor.

Simulations of the sort reported in this memorandum are fairly crude approximations. Many details that would have to be specified in the tax code would affect the actual results. In addition, simulations are sensitive to the tax incidence assumptions that are used. While there is a broad consensus in the economics profession about the incidence of certain taxes, such as the personal income tax, there is more disagreement or uncertainty about the incidence of other taxes. The substitution of a flat-rate income tax and VAT for existing income, payroll, and excise taxes would represent a major economic restructuring and would undoubtedly induce people to alter their economic behavior. This could result in significant changes in incomes, patterns of consumption, aggregate economic activity, asset values, and so

forth. Finally, tax administration and compliance costs could change. All of those effects, which could alter the VAT and flat-rate income tax rate needed to yield no net change in the deficit and the ultimate effect on people's after-tax income, lie beyond the scope of this analysis.

DATA SOURCES

The projected distribution of family incomes and federal taxes is based on data from four sources. The primary source is the March Current Population Survey (CPS), a monthly survey of approximately 60,000 families conducted by the Bureau of the Census. Each March, the survey collects detailed information on family characteristics and family income in the previous calendar year. The reported data on income from taxable sources from the CPS file were adjusted for consistency with reported incomes from the Statistics of Income (SOI), an extensive annual sample of actual individual income tax returns. Data on consumer expenditures were taken from the Consumer Expenditure Survey (CEX) Interview Surveys, a conducted quarterly by the Bureau of Labor Statistics. That survey collects detailed data on household expenditures over a 12-month period. Data from each of the files were adjusted to expenditure totals as reported in the national income and product accounts.