Office of Tax Analysis
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TREASURY COMMENTS ON COOPERS AND LYBRAND ANALYSIS OF TAX-EXEMPT BOND REVENUE ESTIMATES

The Coopers and Lybrand (C&L) study "An Analysis of Treasury Estimates of Revenue Gains From the Proposed Elimination of Selected Tax-Exempt Securities", commissioned by the Public Securities Association, asserts that:

1) the Treasury Department did not provide "sufficiently detailed information concerning the Treasury assumptions and numbers to discern the exact Treasury methodology." and

2) anticipated revenues to the Federal government from the elimination of selected tax-exempt bonds are 80 percent to 95 percent lower than Treasury's estimates due to the exclusion of several critical elements.

First, several Treasury staff members spoke extensively with Coopers & Lybrand staff about the Treasury methodology and data parameters used in estimating the revenue loss from tax-exempt bonds. Numerous references to published studies and data were provided. It is unclear what short of providing the printouts of the computer programs would have satisfied the C&L staff. Suffice it to say, that from the available information, their replication of the Treasury estimates resulted in a $12.94 billion estimate between FY 86 - FY 90 compared to Treasury's $13.0 billion.

Second, the C&L study argues that the revenue estimates for restricting the volume of tax-exempt bonds are greatly overstated. The study cites a number of assumptions used in the calculation which they believe cause the overstatement. It is interesting to point out that as an independent analysis, the C&L study only found (or included comments on) problems that might result in overstatements, and none that might result in understatements of the revenue loss. For instance, the economic distortions in the allocation of the nation's capital, when allocated by state and local agencies rather than by the market, are not included in the Treasury methodology, which would understate the revenue loss, yet the C&L study does not discuss the issue, even though it has been mentioned in other analyses.

The C&L study focuses on the following four issues involved in the revenue estimation methodology and concludes that the Treasury methodology overstates the revenue estimates. Those issues and comments are discussed below.

1) The C&L study argues that restrictions on the use of tax-exempt bonds would not result in an equivalent increase in taxable securities. Rather they assume that for each $100 reduction in "private-purpose" tax-exempt bonds, there would be only a $40 increase in taxable bonds, a $40 increase in corporate equity, and a $20 increase in "public purpose" tax-exempt bonds.

Comments:

- Although the Treasury working assumption is that there is an equal increase in taxable bonds, the average marginal tax rate used is adjusted to reflect the change in supply of alternative tax-preferred assets, and change in the financial asset portfolios of investors.

- The C&L study provides no empirical support for why a 40/40/20 split between taxable/corporate equity/tax-exempt assets is appropriate. The empirical question is how will relative price changes affect the supply of different financing methods, yet the C&L study has simply asserted a different mix without any empirical support.

- The substitution of corporate equity for tax-exempt financing implies either an increase in the corporate sector or a decrease in the debt/equity ratio of corporations. The assumed behaviorial change in the size of the corporate sector or corporate finance is unlikely given the most liberal expectations of relative price changes.

- Further, the C&L study fails to account for the fact that income earned on corporate equity is subject to double taxation of corporate dividends. If the corporate sector expands or it shifts to more equity finance, then tax revenues would be expected to increase, not decrease as their study concludes. Thus, even granting the C&L assumptions, the study significantly underestimates the revenue effect.

- Most empirical studies of state and local government debt show relatively small responsiveness to changes in relative interest rates. These empirical estimates are inconsistent with a 20 percent substitution of tax-exempt debt, which implies that "public-purpose" debt would increase by 34 percent at 1984 levels by $14.5 billion (20 percent of $72.5 billion "private purpose" debt) compared to $42.6 billion of "public purpose" debt.

2) The C&L study argues that private purpose tax-exempt bonds increase total savings and investment by 5 percent of the bond volume.

Comments:

- The C&L study states that a 5 percent reduction in tax-exempt bonds would be consumed rather than reinvested. A shift from investment into consumption would not reduce current gross national product (GNP), since GNP equals consumption, investment, government spending, plus net exports. Any increase in future GNP due to additional investment would largely occur outside of the 5-year revenue estimating horizon.

- o There is no evidence supplied that a revenue neutral change with lower marginal tax rates will reduce savings and investment.

- o A change in the savings/consumption choice by individuals depends on the change in after-tax rates of return to all capital. The C&L study assumes that repeal of private purpose tax-exempt bonds lowers after-tax rates of return without incorporating the offsetting marginal rate reduction. Private-purpose tax-exempt bonds may increase consumption and reduce savings and investment compared to the alternative of a revenue neutral tax system with lower marginal tax rates.

3) The C&L study argues that "revenue reflows" are important. They argue that fewer tax-exempt bonds will raise the cost of capital and reduce the investment funds of businesses.

Comments:

- o The C&L estimates are based on the assumption that the proposal increases total taxes. No account is taken for the fact that the additional revenue is used to reduce marginal tax rates. Thus, changes in the cost of capital and the amount of investible capital are greatly overstated.

- o The C&L model treats all government spending as a drag on the economy, while all tax reductions result in higher GNP. A direct expenditure program that subsidizes a fraction of borrowing costs requires higher marginal tax rates to raise a given amount of revenue, and thus decreases GNP and tax revenues. Tax-exempt bonds that subsidize a fraction of the borrowing costs also require higher marginal tax rates to raise a given amount of revenue, but tax-exempt bonds are treated as a tax reduction, and thus are estimated to increase GNP. These results from the C&L model are patently inconsistent.

4) The C&L study argues that the Treasury forecast of IDB volume is too high.

Comments:

- o In recent years, Treasury forecasts of private purpose tax-exempt bond volume have been that the exponential growth rates in past volume of private purpose tax-exempt bonds could not be maintained. These estimates of annual increases have consistently proven to be too low.

- Treasury forecasts of private purpose tax-exempt bond volume have been revised upward each year. Forecasts of total private purpose tax-exempt bond volume are published each year in Special Analysis F of the U.S. Budget. For example, the FY 83 Budget (completed December 1981) estimated the 1983 volume of private purpose tax-exempt bonds at $40.2 billion, the FY 84 Budget (completed December 1982) revised the estimate to $45.1 billion, the FY 85 Budget (completed December 1983) revised the estimate to $50.1 billion, yet the final data available August 1984 shows the actual volume of private purpose tax-exempt bonds was $57.1 billion in 1983.

- The C&L study could have made a credible claim that the Treasury volume forecasts are too low and thus understate the revenue loss; instead, they argue with no empirical support that the volume estimates are too high.

Finally, the C&L study argues that the Treasury methodology does not realistically portray the workings of the capital markets. It should be noted in closing that economic forecasts necessarily involve some simplification of reality. Nobel-prize winning economist Milton Friedman has argued that the usefulness of economic models should be judged on their predictive powers, not on how realistic the assumptions are. While the Treasury's methodology abstracts somewhat from the details of the capital markets, it provides an appropriate characterization for revenue estimating purposes. The C&L study provides no evidence to the contrary.