to the factual and analytical framework in securing a measurement of the extent to which state and local government borrowers benefit from the exemption feature. The analysis presented here is based on the techniques employed in this study.[5]

A current range for the yield differential on long-term securities was computed on the assumption that the relevant comparable rate on taxable securities, grade by grade and maturity by maturity, lay somewhere between the yields on publicly and privately placed issues. The difference between new issue municipal yield and public corporate new issue yields was taken as the minimum differential; the maximum was set at the differential between private corporate placements and new issue yields on municipals of comparable quality.[6]

Application of the Ott-Meltzer technique to date for 1966 suggests a current estimate of the range of the yield differential as 1.33 to 1.88.[7]

Measuring the interest saving to State and local governments in any year due to the exemption feature poses the problem that the interest payments on State and local securities in a given year consist of payments contracted in all previous periods in which debt currently outstanding was issued. Estimation of the reduced borrowing costs on all outstanding securities would involve going far back into the history of such offerings, comparing market yields for fully tax-exempt obligations. Recently investigators have avoided the problem of dating outstanding securities by developing an estimate of the "first year" interest cost savings for any year. This approach was adopted and refined in the recent study by Professors Ott and Meltzer. The interest cost saving due to exemption was estimated by seeking an incre-

---

[5] The authors marshaled some quantitative evidence bearing on the level of yields on State and local securities without the exemption by examining the yield patterns on Canadian municipal and Provincial securities which are subjected to a Canadian Federal income tax, and also through examination of yields on domestic issues of railroad equipment trust obligations and religious institution bonds, which in the former instance are similar in form to State and local government securities (i.e., issued serially) and in the latter instance are comparable to small, unrated local government issues.

Because the yield series which would prevail in the absence of the exemption would be based to a large extent on qualitative evidence and judgments made in the capital market, the views of capital market experts on the absence-of-exemption yields on municipals were surveyed. Two conclusions were reached on the basis of this survey. First, while former investigations of the differential have compared the average long-term new issue yields on *public offerings* of corporate bonds with the average long term yields on municipals of the same credit category, the relevant yield on taxable securities should be viewed as some sort of weighted average of new issue yields on *public offerings* and *private placement* of corporate bonds. (In recent years private placements of corporate bond issues have accounted for almost 50 percent of total corporate issues.) Second, in the absence of the exemption it cannot be assumed that offering yields on all maturities would rise by the same absolute (basis points) amount as the estimated rise in offering yields on long-term issues. Some allowance should be made, therefore, for a change in the term structure of yields on municipals in estimating the differential.

Ott and Meltzer concluded that the yield differential for the tax-exemption feature of State and local government bonds was in the range of 1.19 to 2.02 percentage points, based on data for 1960.

[6] The range was calculated on the basis of available data for private placements and new corporate issues. The private placement yield series was based on compilations by the Life Insurance Association of America. For data on new issue yields of public offerings of corporate bonds the FHA series was chosen. The municipal yield series was based on the Investment Bankers Association series on new issue yields on State and local government securities. These series served to provide a general range for the differential between current municipal and the relevant corporate yields. The "3d" quality yields on private placements and the approximately comparable "A" public corporate issue yields were compared with the IBA median yields on "A" 20-year general obligation municipals.

It should be noted that a refined estimate of the range of the differential might allow for the fact that in the absence of the exemption the yields on shorter maturities of municipals would probably rise more than long-term yields. This change in the term structure of yields on municipals can be viewed as a "flattening" of the present yield curve. In the absence of the exemption the municipal yield curve may become less steep than at present and more closely resemble the term structure on corporate bonds.

[7] The Ott-Meltzer work was the subject of a conference of experts at the Brookings Institution which was summarized in Ott and Meltzer *op. cit.* p. 113 footnotes. In the discussion a consensus judgment of the conferees was sought and a figure of 1.5 percentage points appeared to be the midpoint of the range of judgments expressed.