local revenues and expenditures which is part of the "Brookings Quarterly Econometric Model of the United States." Ando-Brown-Adams (A–B–A) limited their direct investigation of factors affecting State and local capital outlays to the outlays themselves, not attempting to explain borrowing separately. Disaggregating, they used separate equations to explain capital outlays for education, hospitals, administrative and service facilities, highways, sewer and water systems, and all other nonresidential construction.

However, A-B-A used an interest rate (Moody's long-term municipal bond yield) as an explanatory variable in only one of the six equations: that explaining education capital outlays. Even in that equation, the interest rate was entered twice (once as its own level and once as the product of itself times population), and no theoretical justification for including the second variable is given. Hence, the result of a negative regression coefficient for the interest rate times population term but a positive coefficient for the rate itself is difficult to interpret. The other five categories of nonresidential capital outlays [14] are explained entirely by indexes of real needs, spending, and current revenues. Insofar as the gross coefficients of determination [15] are moderately high (between 77 and 95 percent of capital outlay levels are explained), the results tend to show, by implication, that interest rate effects on capital outlays have been very small, very hard to measure, or perhaps both, for years prior to the mid-1960's.

(2) A Model of the State and Local Bond Market

State and local governments seek borrowed funds in a market dominated by the consequence of one feature of our laws: the Federal income tax exemption privilege for interest received by investors. Institutional and individual adjustments to the longstanding feature have been well described by Roland Robinson in his volume footnoted elsewhere and by Sidney Homer and other contributors to this present volume. These adjustments and the growth of needs for capital outlays have resulted in the following structural features of this security market, features which should be taken explicitly into account by any empirical study of trends and fluctuations in municipal [16] yields and issues:

(1) Other than a diminishing number of State and local governments and public retirement funds, lending institutions which do not pay substantial income taxes on their earnings, relative to the size of the latter, are excluded from this market for all practical purposes. As a result, institutional demand for municipals is uniquely exposed to cyclical and irregular shifts in demand by the remaining institutions.

(2) Among these remaining institutions, commercial banks are dominant in both the average level of takings over credit cycles and shifts in demand during such cycles. The priority given by banks to business loans, and hence the residual nature of their demands for municipals, is well known. But less noted in the literature has been the stimulative effect of rising time and savings deposit liabilities on

[14] Residential outlays are not explained by A-B-A, because of their smallness and irregularity.

[15] This coefficient, for which the symbol is R square, shows the proportion of variation around the mean of the dependent variable (that being explained) which is accounted for by all the independent variables together.

[16] This noun is used henceforth as a synonym for State and local securities together.