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REVENUE FORECAST

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STATE OF SOUTH CAROLINA
BOARD OF ECONOMIC ADVISORS

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STATE DOCUMENTS

To: South Carolina Budget and Control Board

Subject: South Carolina Board of Economic Advisors' Revenue
Forecast, February 10, 1987

The Board of Economic Advisors reported its findings on possible revision of estimates on General Fund Revenues made on January 16, 1987. At that time, the Board of Economic Advisors projected that it was probable that a \$35 million shortfall could occur in FY 1987 revenues which likely would carry over and be reflected in FY 1988 revenues. A reconsideration was requested by the Budget and Control Board prior to February 15, 1987 and it is contained in this report.

The economic outlooks for FY 1987 and FY 1988 have improved since the January 16 report and the January revenue collections, other than Corporate Tax Revenues, were most encouraging. The rate of increase in revenues for the first seven months of this fiscal year are above the targeted rate, but it must be recognized that some revenues normally collected in the Spring were received in the Fall. Also, the tax reform bill tended to encourage purchase of durable goods, such as automobiles, in the October-December quarter, and earlier than normal payments of estimated individual income tax appear to have been made.

Considering adjustments for these factors, overall General Fund Revenues to date are close to targeted rates, but Corporate Tax receipts are below anticipations and there are uncertainties about individual income tax refunds. In summary, the most probable outcome for FY 1987 revenues at this time is that they will be \$24 million lower than the estimate made on November 1, 1986, rather than the \$35 million shortfall possibility stated on January 16, 1987.

FY 1988 General Fund Revenues will be affected positively by a slightly higher economic forecast but will also be adjusted for the lower FY 1987 base and for the elimination or reduction in some tax categories. Elimination of the sales tax on telephone access and food stamps and reduction in the estimated earnings on investment will reduce the rate of increase in overall tax revenues. In addition, a windfall of \$16.4 million in insurance taxes this fiscal year will not appear in FY 1988 All Other taxes. The effect of higher economic growth but with reductions in tax sources will net out to produce FY 1988 revenues of \$2,794 billion instead of the November 1, 1986 estimate of \$2,821 billion.

Details of these adjustments appear in accompanying tables. Finally, it must be noted that there are many uncertainties in the economic outlook, especially in connection with the expected improvement in the Balance of Trade. These estimates assume an increase in exports relative to imports which should have positive effects on industrial production and employment.

Board of Economic Advisors

J.A.M.

February 10, 1987

TABLE I
 GENERAL FUND REVENUES
 Forecast 1986-87 and 1987-88
 In Millions of Dollars

	ACTUAL 1985-86	REVISED 1986-87	REVISED 1987-88
TOTAL GENERAL FUND (1)	2509.3	2656.2	2794.0
Total Regular Sources (1)	2468.2	2613.4	2751.0
Sales Tax (1)	893.3	947.0	1000.0
Individual Income Tax	907.3	980.0	1061.0
Corporation Income Tax	185.0	185.0	204.0
All Other	482.6	501.4	486.0
Miscellaneous Sources	41.1	42.8	43.0
Education Improvement Fund	222.0*	236.75*	250.00*
Interest on Education Improvement Fund	2.2	1.8	1.8
TOTAL	224.2	238.55	251.80
		<u>RATES OF CHANGE</u>	
TOTAL GENERAL FUND		5.9%	5.2%
Total Regular Sources		5.9	5.3
Sales Tax		6.0	5.6
Individual Income Tax		8.0	8.3
Corporation Income Tax		0.0	10.3
All Other		3.9	-3.1
Miscellaneous Sources		4.0	0.5
Education Improvement Fund		6.6	5.6
Interest on Education Improvement Fund		-19.5	0.0
TOTAL		6.4	5.6

(1) Net of Education Improvement Fund.

* One-fifth of total sales tax.

TABLE II
 TOTAL GENERAL FUND REVENUES
 QUARTERLY ESTIMATES
 Fiscal Years 1986-87 and 1987-88
 (In Millions of Dollars)

	FY 1986-87 -----	FY 1987-88 -----
FIRST QUARTER	665.5	680.7
SECOND QUARTER	1364.1	1373.3
THIRD QUARTER	2005.1	2077.5
FOURTH QUARTER	2656.2	2794.0

PERCENT OF TOTAL REVENUES
 COLLECTION BY QUARTER

	FY 1986-87 -----	FY 1987-88 -----
FIRST QUARTER	25.1	24.4
SECOND QUARTER	26.3	24.8
THIRD QUARTER	24.1	25.2
FOURTH QUARTER	24.5	25.6

Board of Economic Advisors
 February 10, 1987

REVENUE FORECASTING PROCEDURES
BOARD OF ECONOMIC ADVISORS
FISCAL YEARS 1987 and 1988

The procedures and methodology of the Board of Economic Advisors in the preparation of the revenue forecasts for Fiscal Years 1986-87 and 1987-88 as of February 10, 1987 involved four major stages: 1) providing the economic background and setting at the national and State levels for the revenue forecasts; 2) interpreting recent and historical elasticities; 3) analyzing the outputs of the SCOPE model under alternative scenarios; and 4) interacting with officials of other states with responsibility for revenue forecasting.

The Board members had meetings as in the past with experts and professional economists for economic intelligence gathering. These included a meeting on February 3, 1987 with J. Alfred Broaddus, Jr., Ph.D., of the Federal Reserve Bank of Richmond. A second meeting on February 9, 1987 provided interaction between Board members and Richard W. Ellson, Ph.D., Senior Research Economist and Associate Professor of Economics, University of South Carolina; James N. Young, Chief Economist, BellSouth Corporation, Atlanta, Georgia; and Alfred G. Smith, III, Senior Vice President, NCNB Corporation, Charlotte, North Carolina, in which the outlook for the economy of the nation and South Carolina was discussed. The resources of the national forecasting groups by which the SCOPE model is driven, Data Resources, Inc., and Chase Econometrics, Evans Economics, Inc., and Wharton Econometric Forecasting Associates were available weekly and monthly to Board members. Materials from a variety of sources--international, national and state publications--were also made available to Board members.

The preparation of the economic and revenue forecasts involved many meetings between December 31, 1986 and February 10, 1987 with preliminary estimates, modifications and refinements of estimates.

Board of Economic Advisors
February 10, 1987

BRIEF OVERVIEW OF THE SCOPE MODEL

The SCOPE (South Carolina Operations Planning and Evaluation) Model was initiated in 1972 in the Office of Chief Economist (originally in the Governor's office). It was designed and operates as a policy and forecasting tool for top level executive, legislative and management decision making. SCOPE is an econometric model designed to reflect the South Carolina economy and to forecast the performance of major economic variables in the State, particularly tax revenues, employment and income. The model is based on a framework of economic activity in the State relative to national economic activity. Approximately 85 exogenous national variables are currently taken from three leading national forecasting services (Data Resources, Inc., Chase Econometrics, and Evans Economics, Inc.).

The SCOPE core model consists of 63 equations, of which 55 are stochastic* and 8 are identities. SCOPE attempts to reflect the diversity of the South Carolina economy by including 20 industrial sectors of manufacturing and nonmanufacturing employment, and a series of equations for wages, personal income, unemployment, taxable sales and State tax revenue.

Durable Manufacturing Employment

The durable manufacturing employment block consists of 6 stochastic equations for the major industries in the State as reported by the South Carolina Employment Security Commission. The employment equations for each separate industry are expressed as a function of a national consumption expenditure index appropriate for that particular industry, a national industrial production index corresponding to that industry and the national level of employment in that industry. The durable employment forecasts include the following industries: Lumber and Products, Stone, Clay and Glass, Fabricated Metal Products, Electrical and Nonelectrical Machinery, and Other Durables which includes Furniture and Fixtures, Instruments and Related Products.

Nondurable Manufacturing Employment

The nondurable manufacturing employment block consists of 7 stochastic equations for the major nondurable industries in the State. Like the durable block, the employment equation for each industry is expressed as a function of a national consumption index appropriate for that particular industry, a national industrial production index for that particular industry and the national level of employment in that industry. Employment forecasts are available for each of the following nondurable industries: Food and Kindred Products, Textile Mill Products, Apparel, Paper, Printing and Publishing, Chemicals, and Other Nondurables, such as Rubber and Miscellaneous Plastics Products.

* Stochastic is defined as a type of modeling for time series analysis explaining future probability from historical experience.

Nonmanufacturing Employment

The nonmanufacturing employment block is disaggregated into 7 stochastic equations: Construction, Transportation and Public Utilities, Services, Trade, Finance-Insurance-Real Estate, State and Local Government, and Federal Government. Employment growth in these industries is specified as functions of State population, national employment in these industries and national consumption indices.

Personal Income

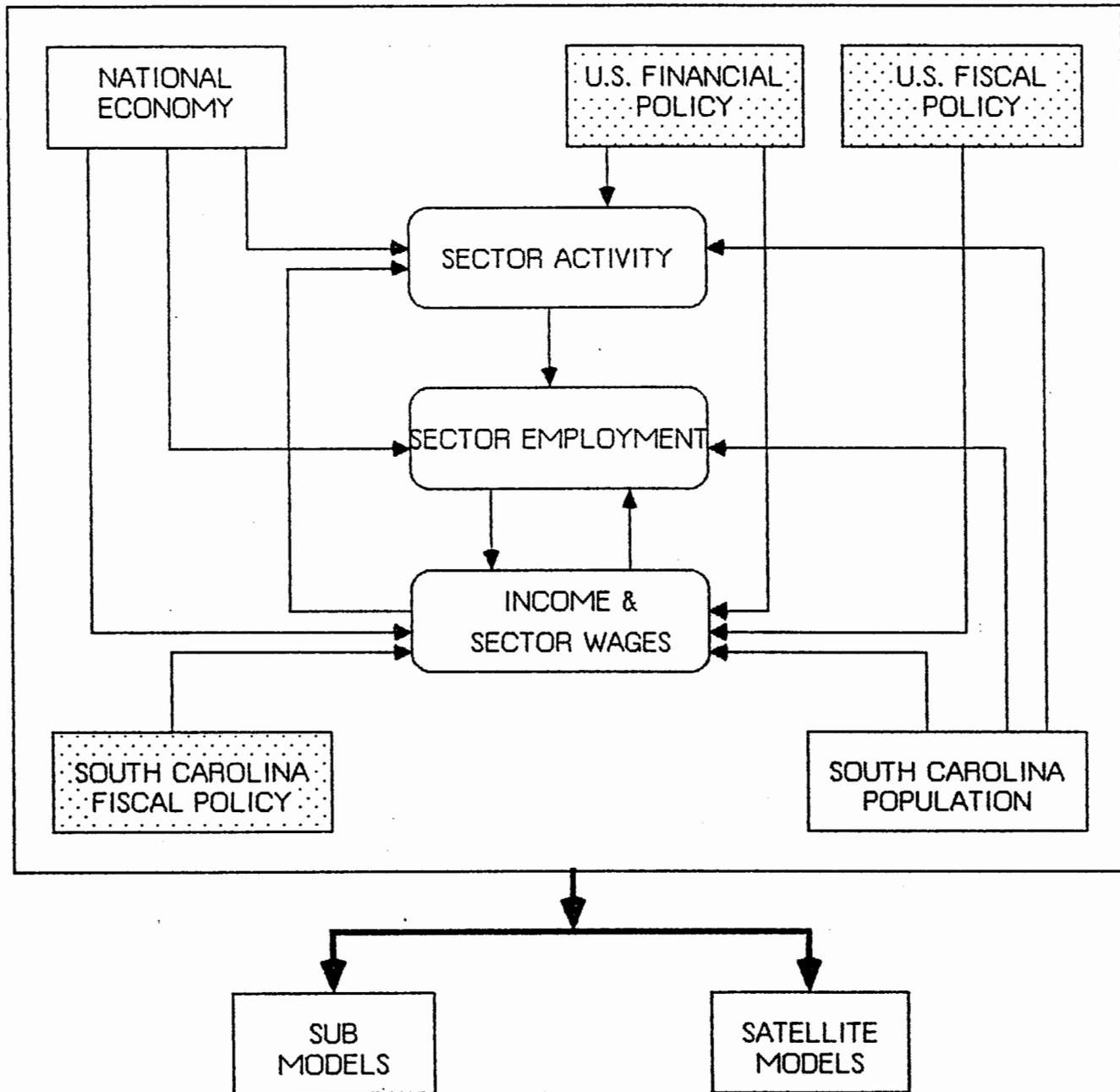
The personal income block is composed of 11 equations, one equation for the unemployment rate, and 10 additional equations for each of the 10 major components of personal income as published by the Bureau of Economic Analysis, Department of Commerce. These equations are specified as functions of their respective national and State income and employment variables. In addition, equations are estimated for wage and salary disbursements for all major industries and are specified as functions of national wage trends and State employment levels.

Revenues

The revenue section of the model emphasizes 4 major stochastic Regular Revenue Sources equations: 1) South Carolina corporate income tax, 2) South Carolina individual income taxes, 3) South Carolina retail sales tax, and 4) all other taxes. These equations are individually specified as functions of aggregate employment and income with their respective coefficients and constants. In addition, there are 2 stochastic equations for taxable sales and refunds.

SCOPE MODEL

SOUTH CAROLINA OPERATIONS, PLANNING & EVALUATION MODEL



-  Exogenous Variables
-  Exogenous Policy Variables
-  Endogenous Variables