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1990/91

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NOVEMBER 1 FIRST OFFICIAL ESTIMATE
FY...

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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: November 1 First Official Estimate for FY 1990-91

In accordance with Section 11-9-880 of the 1976 Code, as amended, the Board of Economic Advisors submits the first official estimate for Fiscal Year 1990-91.

The estimate is being made in the context of a national economy which has experienced an expansion of some 85 months' duration. This is already the second longest period of expansion on record. Most leading economists are predicting that the expansion will continue through the forecast period although at a reduced rate of growth.

The typical difficulties inherent in the forecasting process are present at this time but are even more pronounced with the near historical duration of the expansion. The impact of Hugo at the State level adds to the uncertainties. With revenues in Fiscal Year 1988-89 within two-tenths of one percent of the estimate, one usual difficulty--that of establishing the economic base for Fiscal Year 1989-90 to arrive at an estimate for Fiscal Year 1990-91--is greatly diminished, adding to the reliability of the Fiscal Year 1989-90 base made in the February 10 forecast. To this base must be added net adjustments in the Fiscal Year 1989-90 Appropriation Act.

With these factors taken into consideration, the scenario for the estimate for Fiscal Year 1990-91 is one of slower growth and uneven

expansion. Growth, measured by net national product, a more accurate gauge at this time because of the capital consumption effects of Hugo and the West Coast earthquake, is anticipated to be in the seven percent plus range this fiscal year, and the six percent range next fiscal year with real growth of one and one-half percent and inflation in the four and one-half percent range. In South Carolina, growth should be at these levels, from seven percent this fiscal year dropping to six percent next fiscal year.

With the probability of the Federal Reserve more likely to err on the side of restraint than on expansion, it would be prudent to recognize that an economy so finely balanced between soft landing and decline could falter during the period of the forecast.

Given the underlying assumption of the consensus forecast of no recession but with great uncertainty of the year's pattern, the Board of Economic Advisors estimates revenues of \$3355 million for Fiscal Year 1989-90. Revenues of \$3538.5 million are estimated for Fiscal Year 1990-91. This is an increase of \$175 million over the Fiscal Year 1989-90 Appropriation Act. In order to have the benefit of the most current data of the impact of Hugo on revenues, the Board of Economic Advisors will assign quarterly shares following receipt of October results.

The situation will warrant more than the usual close monitoring because of the impact of Hugo and the uncertainties of the national economy. The negative effects of Hugo should emerge in the earlier part of the forecast period with the positive effects appearing later. Consequently, the true underlying trend may not be revealed until late this fiscal year or sometime in the Fiscal Year 1990-91 forecast period.

Board of Economic Advisors

W.R.P

November 1, 1989

TABLE 1

GENERAL FUND REVENUES
Forecast FY 1989-90 and FY 1990-91
(In Millions of Dollars)

	ACTUAL FY 1988-89	ESTIMATE FY 1989-90	ESTIMATE FY 1990-91
TOTAL GENERAL FUND (1)	3142.5	3355.0	3538.5
Total Regular Sources (1)	3098.0	3314.0	3494.5
Sales Tax (1)	1085.6	1128.1	1187.0
Individual Income Tax	1248.1	1390.8	1485.1
Corporation Income Tax	211.2	222.0	237.4
All Other	553.1	573.1	585.0
Miscellaneous Sources	44.5	41.0	44.0
Education Improvement Fund	272.318	282.025*	296.750*
Interest on Education Improvement Fund	1.771	1.900	1.900
TOTAL	274.089	283.925	298.650

	<u>RATES OF CHANGE</u> **
TOTAL GENERAL FUND	6.8% 5.5%
Total Regular Sources	7.0 5.4
Sales Tax	3.9 5.2
Individual Income Tax	11.4 6.8
Corporation Income Tax	5.1 6.9
All Other	3.6 2.1
Miscellaneous Sources	-7.8 7.3
Education Improvement Fund	3.6 5.2
Interest on Education Improvement Fund	7.3 ---
TOTAL	3.6 5.2

(1) Net of Education Improvement Fund.

* One-fifth of total sales tax.

** Percent change based on unrounded figures.

Board of Economic Advisors
November 1, 1989

REVENUE FORECASTING PROCEDURES
BOARD OF ECONOMIC ADVISORS
FISCAL YEAR 1991

The procedures and methodology of the Board of Economic Advisors in the preparation of the first official revenue forecast for Fiscal Year 1990-91 involved five major stages: 1) providing the economic background and setting at the national and State levels for the revenue forecasts; 2) reconciling the February 10, 1989 Board of Economic Advisors Estimate for Fiscal Year 1989-90 with Legislative actions in the 1990 Appropriation Act; 3) interpreting recent and historical revenue relationships; 4) evaluating the economic impact of Hurricane Hugo on income and revenues; and 5) interacting with officials of other states with responsibility for revenue forecasting.

The Board members consulted as in the past with experts and professional economists for economic intelligence gathering. A special meeting of the Board of Economic Advisors on October 4, 1989 brought together Board members, in-State economists and South Carolina members of the National Advisory Council. The purpose of the meeting was to discuss the effects of Hurricane Hugo on the State's economy and revenues for this fiscal year and next and to determine whether any change should be made in the revenue estimates due November 1.

A second meeting was held on October 26, 1989 in Columbia with the National Advisory Council to the Board of Economic Advisors. Present at the meeting were: Dan M. Bechter, Ph.D., Vice President, Federal Reserve Bank of Richmond, representing Advisory Council member J. Alfred Broadus, Jr., Ph.D., Senior Vice President and Director of Research, Federal Reserve Bank of Richmond; Ben E. Laden, Ph.D., President, BEL Associates; James A. Morris, Ph.D., Distinguished Professor of Economics Emeritus, University of South Carolina; Ronald P. Wilder, Ph.D., Chairman, Department of Economics, University of South Carolina; David A. Wyss, Ph.D., Senior Vice President and Chief Financial Economist, Data Resources, Inc.; and Bruce Yandle, Ph.D., Alumni Professor of Economics, Clemson University. Bruce L. Williams, formerly Corporate Economist, Southern Bell Telephone Company, and currently Manager, Statistics and Econometrics, BellSouth Services, resigned from the Advisory Council effective August 31, 1989, following a reassignment in an area other than forecasting. Bethel Minter, First Vice President and Economist, Sun Trust, Atlanta, Georgia, and John L. Harris, Ph.D., Director of Economic and Energy Forecasting, Carolina Power and Light Company, Raleigh, North Carolina, also participated in the meeting.

The resources of the national forecasting groups by which the SCOPE model, when operative, and other forecasts are driven, Data Resources, Inc., Evans Economics, Inc., and WEFA, Inc., were available weekly and monthly to Board members and staff. Materials from a variety of sources--international, national and State publications--were also made available to Board members and staff. In addition, there was Board interaction by the Chairman and the Executive Director with numerous outstanding national economists at the 31st Annual Meeting of the National Association of Business Economists held September 24-27, 1989 in San Francisco, California and BEA staff representation at the 44th Annual FTA Conference on Revenue Estimating and Tax Research held October 22-25, 1989 in Orlando, Florida.

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 operated 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 with approximately 85 exogenous national variables provided by leading national forecasting services such as Data Resources, Inc., the WEFA Group, and Evans Economics, Inc.

The SCOPE core model consists of 63 equations, of which 55 are stochastic* and eight 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 six 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 seven 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 seven 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 ten additional equations for each of the ten 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.

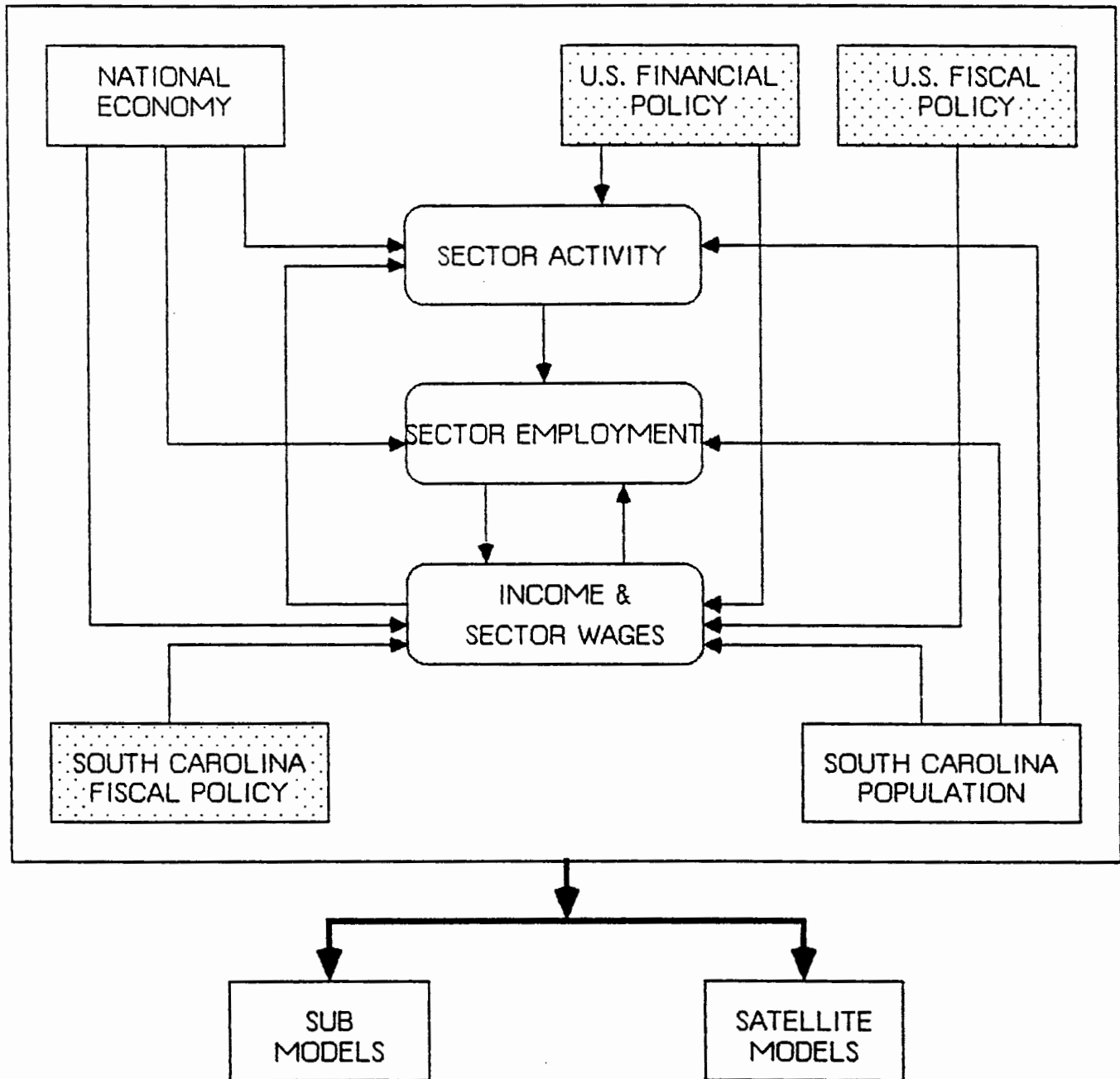
Revenues




The revenue section of the model emphasizes four 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 two stochastic equations for taxable sales and refunds.

The model is currently undergoing major revisions to incorporate recently developed econometric techniques and to reflect significant structural changes in the national and South Carolina economies. The core economic model is near completion and the reformulation of the revenue model is in progress.

SCOPE MODEL

SOUTH CAROLINA OPERATIONS, PLANNING & EVALUATION MODEL



-  Exogenous Variables
-  Exogenous Policy Variables
-  Endogenous Variables