
FEDERAL MINISTRY OF FINANCE

INTEGRATED FINANCIAL AND ECONOMIC
MANAGEMENT INFORMATION SYSTEM
[IFEMIS]

**WORKSHOP ON ECONOMETRIC
MODEL APPLICATIONS TO NEEDS-2**

17 – 18 MAY 2007

HELD AT

**CENTRE FOR ECONOMETRIC
AND ALLIED RESEARCH [CEAR]
UNIVERSITY OF IBADAN, IBADAN**

INTRODUCTION

I. BACKGROUND

The Federal government of Nigeria, in conjunction with the European Union, The World Bank and other development partners, embarked on the Economic Management Capacity Building Project [EMCAP] in 2002 as part of a broad effort to improve governance at the Federal level in Nigeria. The aim of EMCAP was to strengthen the ability of the Federal Government to manage all aspects of the Nigerian economy. A key component of the EMCAP was to establish an Integrated Financial and Economic Management Information System [IFEMIS] that will enhance the ability of the relevant core government agencies to collect, process and disseminate financial, accounting, statistical and economic management information. In 2003, the European Union commissioned two studies for the design and detailed analysis of computer hardware and software requirements for IFEMIS. On the hardware side, IFEMIS was designed to connect seven line ministries via a subterranean fibre-optic network to a DATA Centre at the Ministry of Finance.

The focus for this project was to be on establishing an initial uptake of automated business process within the Federal Government, based on collaboration, work flow, document management and econometrics application. The deeper goal of automating budget preparation and control was to form part of phase II of IFEMIS (post-EMCAP).

II. OVERALL OBJECTIVE OF PROJECT

The aim of the project was to use ICT to improve the organizational effectiveness and quality of service delivery between seven core Federal Government agencies. The project was to seek to integrate people, processes and technology through strategic change management, business process improvement, project management and ICT infrastructure. It was to include the assessment of the specific needs of each agency, including identification, prioritization and detailed designs of: work culture, change and project

management requirements, and business process reengineering and business process integration – to develop a comprehensive implementation plan.

The project was to develop a suite of software applications for IFEMIS, hosted in a DATA Centre in the Ministry of Finance and used by the following seven Ministries connected to the IFEMIS network:

- The Federal Ministry of Finance [FMF]
- Office of the Accountant General [OAGF]
- Budget Office [BOF]
- Federal Office of Statistics [FOS]
- National Planning Commission [NPC]
- Debt Management Office [DMO]
- The Central bank of Nigeria [CBN]

The applications are meant to be useful and usable for the end-users and will mark the first stage in the automation of core business processes within core Federal Government agencies.

The initial phase or pilot scheme phase of IFEMIS involving the installation and connectivity of the hardware linking the seven key government agencies has been completed. We do have a major opportunity for test-run application of the system in the development of NEEDS-2 an on-going project involving all the key seven government agencies as stakeholders. The project which is currently being coordinated by the National Planning Commission which is one of the seven key agencies is already in progress. The objective of this project is to leverage the IFEMIS infrastructure to facilitate the on-going interactions between the various government agencies. Its specific purpose is to demonstrate the usefulness of IFEMIS in letting it find application in the specific on-going collaborative project, as a pointer to its immense potentials for future applications in several other areas of government business.

4

Introduction to Macroeconomic Modelling

by

Professor S.O. Olofin
*CEAR, UNIVERSITY OF
IBADAN, IBADAN*

Objectives

- Develop/improve Policy models

Estimation(Econometric techniques)

Specification (Model structure & Modelling Techniques)

for

Optimal forecasting

Policy analysis (formulating and implementing)

- **Adapt/customise prototype model**
- **Proceed to specific applications as in NEEDS-2**

Where do models come from?

- First - Tinbergen 1936 - Dutch economy
- Keynes - National Accounts - stimulate
further modelling: $Y = C + I + G + X - M$
- Lawrence Klein - architect of modelling
after 2WW
- Single-country models: USA & UK .
- Multi-country models

How/Why do models differ?

- Different aims/goals:
 - Structural analysis (extended vs. disaggregate)
 - Forecasting
 - Policy evaluation
- Different economic and theoretical perspectives: Keynes
- -Monetarist
 - Rational expectations
 - Supply-side

How have models/macro modelling developed?

- **Models develop over time to keep up with Development in economic theory**
 - Development in econometric techniques/methodology

From theory to modelling: Why?

- Keynesian (demand-side driven)

$$Y=C+I+G+IV+X-M$$

- Monetarist
- Rational expectations
- Supply-side

Prototype model

- **Structure**
 - Demand-side
 - Government financial & monetary sectors
 - Foreign & trade sectors.
 - Supply - side
- **Twin-problems**
 - Inadequate data
 - Structural change
- **Methodology**
 - Assumptions/calibrations based on economic theory
 - Kalman Filter

From theory to practice

STAGE 1	STAGE 2	STAGE 3	STAGE 4
<i>Demand-side (Keynesian)</i>	<i>Monetary</i>	<i>BOP & Trade sector</i>	<i>Supply-side</i>

- **Estimation**
- **Simulation**
- **Forecasting**
- **Policy evaluation**

IFEMIS

INTEGRATED FINANCIAL AND
ECONOMIC MANAGEMENT
INFORMATION SYSTEM

BACKGROUND

➤ FUNDED BY THE EU
UNDER EMCAP (ECONOMIC
MANAGEMENT CAPACITY
BUILDING PROJECT)

PROJECTED STARTED IN
EARNEST AUGUST 2004,
FINISHED OCT 2006.

➤ IFEMIS – INTEGRATED
FINANCIAL AND
ECONOMIC MANAGEMENT
SYSTEM;

IFEMIS IN A NUTSHELL

- ❖ IFEMIS is a technology platform which will help drive reform at the core of Federal Government;
 - ❖ IFEMIS is the first multi-agency Information Systems project of its kind in Nigeria;
 - ❖ IFEMIS will be a success story and a legacy project for the current administration;
 - ❖ IFEMIS is the foundation for larger IS technology projects to come.
-

IFEMIS -Hardware

Links 9 agencies via an IT backbone network to a data centre at FMF

- Federal Ministry of Finance
 - Budget Office of the Federation
 - Central Bank of Nigeria
 - Accountant General of the Federation
 - Debt Management Office
 - National Planning commission
 - National Bureau of Statistics
 - Customs Services
 - Federal Inland Revenue Services
-

IFEMIS -SOFTWARE

3 APPLICATIONS:

➤ Collaboration tools

- Secure encrypted .gov.ng email
 - Calendaring
 - Document Management & Workflow Engine
 - Econometrics Modelling
-

IFEMIS -Training

➤ Over 1000 hours of training on:

o User applications

o Network Support

o Business Process Improvement

➤ IFEMIS retrains, creates jobs and professionalises

IFEMIS –Features and Benefits

- ❑ Agencies can share information electronically –no time wasted waiting for files=500% increase in efficiency
 - ❑ Files can be rapidly scanned and uploaded to the central repository: nothing gets lost, everything gets archived
 - ❑ Workflow=file transfer automation delivers huge SERVICOM benefits
 - ❑ Stakeholders can email each other securely
 - ❑ Econometric forecasting using RMSM-x will generate powerful Medium-Term predictions of the Nigerian Economy=valuable rich data for NEEDs 2 and MDGs.
-

IFEMIS- Features and benefits

❖ Key government economic and statistical data can be stored on the servers:

- Can be accessed at the touch of a button by any of the stakeholders;

- Can be automatically forwarded to a public-website for access by other stakeholders (for example, the international investor community);

❖ Key business processes such as the Authority to Incur Expenditure can be moved online, creating huge efficiencies in a transparent environment.

IFEMIS -Status

- Wireless network is ready
 - Hardware deployed and installed
 - Application and network training completed
 - Installations for Econometric modeling with IFEMIS have been completed
 - Support contracts have commenced
-