

Financial Sector-Development Project II**MADAGASCAR****TECHNICAL ASSISTANCE TO THE CENTRAL BANK****TRAINING FOR THE CENTRAL BANK OF MADAGASCAR**

A training program is proposed for the Central Bank of Madagascar. The objective of the training is to help managers of the Bank to become fully conversant with the conceptual foundations of modern central banking in market economies and equipped with the tools required for operation of a modern central bank. The proposed program includes five families of courses to be given in Madagascar, plus training activities abroad. Recommended criteria for the selection of training participants are included.



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Financial Sector Development Project, Phase II

MADAGASCAR

TECHNICAL ASSISTANCE TO THE CENTRAL BANK

TRAINING FOR THE CENTRAL BANK OF MADAGASCAR

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	<u>Financial Sector Development Project, Phase II</u>	

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I. INTRODUCTION

Madagascar is emerging from a socialist-style economy in which productive activities as well as the monetary system were governed by planning directives. Over the past several years the country has moved toward a market economy. This structural change means that the central bank will enjoy more independence and that commercial banks will exercise more freedom in credit decisions, in determining their financial structure, and in dealing with risk generally.

The Central Bank of Madagascar could benefit greatly by delivering a major series of courses to its employees about the general concepts behind a market economy and supporting institutions, and also about specific activities such as open market operations and the management of foreign exchange.

USAID wants to support a thoroughgoing agenda of courses available outside Madagascar, to be supplemented by domestic courses.

A number of institutions offer courses relevant to central bankers, particularly policy-level courses. The International Monetary Fund, World Bank, Federal Reserve Bank of New York, the Bank of France, and other entities have well-developed sets of courses aimed at senior policymakers. Unfortunately, admittance to these courses is highly restricted. The International Monetary Fund's IMF Institute and Vienna Institute, for instance, are open only to one or two students per country per year, and some of these admissions are competitive, meaning that they have to be "won." The Bank of France offers a wide variety of courses in Paris which are competitively awarded, and the extent to which participants from foreign countries are welcome is unclear.

Even if these courses abroad were open to all, the cost of sending Central Bank staff out of the country far outweighs the cost of arranging for courses to be prepared and delivered in Madagascar. This route has the further advantage of being tailor-made for recipients in the country.

Exclusive reliance on external training to comprehensively upgrade the senior staff of the Central Bank of Madagascar is not the best approach. It would be more effective to design a training program specifically for Central Bank personnel to be delivered in Madagascar by various institutions. The World Bank and Bank of

France, for example, are willing to prepare target classes, on demand, for specific central banks and to deliver them in French

To accomplish this training, we propose a series of courses which address different concepts and applications. Some of the courses would be taken by everyone in the Bank, others would be taken on an as-needed basis by specialists. Training resources are scarce, making it prohibitively expensive to train the entire staff and more rewarding to focus on policy activities, in conjunction with USAID training priorities.

Assumptions

We assume a total training population of 50 individuals at the mid to senior levels. Additionally, we presuppose a time availability (budget) of 4-6 weeks per person per year, over a two-year time span. We also assume that the training will have to be cost-effective, and therefore we are recommending training solutions which can deliver the most training for the least cost.

The Courses

We propose five sets of courses, listed as parts A, B, C, D and E. Each person to be trained will take at least one course from each category. Part A consists of a series of lectures on the Market Economy based on a World Bank Economic Development Institute (EDI) course. This will feature such topics as economic theory, the role of the central bank, the financial system, and monetary policy.

We propose that all trainees attend this course, which forms the basis of economic concepts and activities. As it is a lecture course, as opposed to a skills-teaching course, it is appropriate that trainees from all levels be present in the classroom together.

Additionally, Part A would include courses that form the foundation of economic theory--micro and macroeconomics, with an emphasis on macroeconomics. These courses would also form part of the mandatory core of knowledge required for modern central bankers.

Part B consists of intermediate macroeconomics, money and banking, and capital markets. These are taken from standard U.S.-style course formats. They should be presented to more advanced training candidates.

Part C consists of central bank-specific courses, intended for very practical applications. These are predominantly policy and operations-style courses.

Part D involves specialized financial courses such as options and derivatives. Although Madagascar obviously does not have much domestic utility for such instruments, knowledge of their characteristics is important for understanding international

capital markets and for operation and regulation of increasingly sophisticated money and capital markets in the coming decade

Part E is devoted to quantitative analysis courses restricted to relevant personnel

The logic of this system is that it provides a basic education in economics, and elements of monetary economics, which form the basis of central bank operations. This foundation can be added to by providing specialized courses on an as-needed basis for personnel whose positions require familiarity with, if not mastery of, these topics

By relying principally upon the local presentation of courses, the Central Bank of Madagascar can most cost-effectively carry out large-scale training of its most important skilled employees

Section II below presents an exposition of domestic courses to be offered. Section III presents ideas for courses abroad and suggestions for an observation tour for senior staff. Section IV deals with study programs abroad for middle managers and bank supervisors and Section V advises on how training opportunities can be matched with potential participants

II DOMESTIC COURSE PLAN

Part A. The Market Economy

A 1 Market Economy and Principles of Economics

This course presents the essentials of the EDI's standard offering entitled "Transition to a Market Economy". It should be taken by all Central Bank personnel to be trained. It can be delivered in French as early as March 1995 by specialists familiar with the EDI presentation of this course whom FSDP II has contacted. (Other course proposals and outlines provided below are indicative.)

1 Week One

Day 1	Morning	Economic Transformation and the Market Economy
	Afternoon	The Macropolicy Framework and the Financial Sector
Day 2	Morning	Pillars of the Economic Theory of the Market Economy
	Afternoon	Interest Rates and the Price of Goods
Day 3	Morning	Sectoral Structure of the Market Economy
	Afternoon	Role of Government of the Private Sector
Day 4	Morning	The Role of the Central Bank

Afternoon Functions of the Financial System and Sector

Day 5 Morning Financial Development and Modernization
Afternoon Financial Policies, Institutions and Instruments

2 Week Two

Day 6 Morning The Process of Structural and Sectoral Adjustment
Afternoon Structural Adjustment and Privatization

Day 7 Morning The Privatization of State-Owned Enterprises
Afternoon The Privatization of State-Owned Financial
Institutions

Day 8 Morning Restructuring, Valuation, Management and Sale in
Privatization
Afternoon Privatization Experiences of Selected Countries
and Cases

Day 9 Morning The Economic Management of the Market Economy by
Government
Afternoon The Monetary Management by the Central Bank
(Money and Capital Management)

Day 10 Morning Seminar Summary Economic Transformation and the
Market Economy
Afternoon Participants' Roundtable, Remarks by the Central
Bank Governor and Closing

A 2 Principles of Macroeconomics

This course focuses on fundamental variables and dynamics of a national economy. These include the demand for money, the basic market-clearing model, inflation and interest rates, the labor market, unemployment, capital and economic growth, government expenditures, taxes and transfers, government debt, and money and business fluctuations.

A 3 Principles of Microeconomics

The course is devoted to the functions of markets and the behavior of market participants. It includes supply and demand, consumer behavior, individual and market demand, choice under uncertainty, production and costs of production, profits and competitive supply, analysis of competitive markets, factor markets, investment and capital markets, general equilibrium and economic efficiency, asymmetric information, and externalities and public goods.

Part B Intermediate Macroeconomics and Financial Markets

B 1 Intermediate Macroeconomics

This course covers the concept of macroeconomics, macroeconomic relationships, national income accounts, including explanations of households, firms, financial markets, the role of government, and foreign trade, and other macroeconomic variables, including price indices and the measurement of real income, unemployment, money, business cycles, and interest rates. The concepts of the consumption function, investment, government spending, net exports, the aggregate expenditure function, and the demand and supply of money are covered, as are Keynesian concepts such as the IS-LM curve and determination of equilibrium interest rates, real income, and prices. The quantity theory of money is addressed. Further, aggregate supply issues such as the Phillips curve, unemployment, and aggregate supply are presented. Growth models, inflation, and dynamic adjustment may be covered if time permits.

B 2 Money and Banking

This course presents basic concepts of the financial system, banking and money markets, more advanced processes of financial markets, regulation and policy, regulating the quantity of money, money and the economy, and monetary policy. Basic concepts include savings and investment, borrowing and lending, money and payments, banking and bank regulation, and interest rates and security prices. The banking and money market portion covers government securities, the role of banks in the money market, international banking, and bank liquidity and risk. The financial markets section includes hedging risk with futures, options and swaps and the capital market. The section on money and the economy focuses on demand for money, prices and interest rates, inflation, and the IS-LM model. Monetary policy covers foundations of monetary policy, stabilization policy, and the Keynesian-monetarist controversy.

B 3 Capital Markets

The capital markets course covers financial institutions, including depository institutions, investment banking, and insurance companies, the equity market, including markets for common stock, stock options, and stock index options and futures, determination of interest rates and bond valuation, debt markets, including money market instruments, treasury securities, corporate securities, interest rate futures, and foreign exchange markets.

Part C. Core Central Bank Policies and Activities

FSDP II has identified a series of courses available from the IMF Institute and the IMF's Vienna Institute that would respond to the

Central Bank of Madagascar's needs in the areas of financial policy, monetary policy and instruments, money and banking statistics, foreign exchange policies and operations, payments systems, financial markets, credit functions within a central bank, data collection and evaluation, central bank accounting, and management skills

C 1 FINANCIAL POLICY

C 1 A **Techniques of Financial Analysis and Programming**

Target This course is aimed at providing a survey of analytical concepts and techniques for officials who have limited formal training in modern macroeconomics and are involved with economic or financial matters in ministries of finance, economy or planning, and in central banks or similar institutions. It is most useful to officials who are likely to have future responsibilities for policy advice and implementation.

Purpose The course is divided into four parts: macroeconomic accounts, tools of economic analysis, elements of a financial program, and the Fund's policies and procedures.

Curriculum National income data, monetary aggregates, government finance and balance of payments statistics, interrelations among sectors, analysis of monetary, fiscal and external payments developments and policies, regression techniques and simple economic models.

Through the use of actual data, participants gain experience in analyzing economic developments and in monitoring emerging economic imbalances. Practical exercises are designed to help the participants gain a deeper understanding of basic macroeconomic relationships and the effects of economic policy. Country experiences are discussed in a series of workshops including projections and programming. As a final exercise, participants prepare their own financial programs.

C 1 B **Financial Programming and Policy**

Target Officials who provide advice to decisionmakers. Advanced degree in economics and knowledge of computers desirable.

Purpose The course aims at widening participants' understanding of the design and implementation of macroeconomic and financial policies. Studies undertaken by the Fund provide the basic material for the course. Also, selected adjustment programs implemented by Fund member countries can be adapted to address changing economic conditions.

Curriculum Review of basic economics and econometrics, focusing on the choice of policy instruments Sessions are held to study the effects of policy measures on the most important variables of interest to policymakers--e g output, prices, employment, the balance of payments, and how these policy measures may be coordinated Workshops in which participants prepare an adjustment program and case studies focusing on the relative effectiveness of policies are also included

C 1 C Bank Credit Policy and Investment Analysis

Target Professors and lecturers from finance academies, institutes of finance, bank training centers, and bank supervisory authority staff

Purpose/Curriculum The course aims to train participants in bank credit policies, techniques of credit analysis, loan administration and risk management, financial instruments and resource mobilization, and approaches to human resource development, training and institution-building in banks

C 1 D Foreign Exchange Policies and Operations

Target Senior or middle-level managers in central banks with responsibility for foreign exchange operations and policies

Purpose/Curriculum The seminar covers the role of foreign exchange rates, central bank policy and operations under different exchange rate regimes, the role of foreign exchange convertibility, the relationship between foreign exchange and monetary policies, strategies for developing domestic foreign exchange markets, management of foreign exchange reserves portfolios, typical central bank operations and instruments in foreign exchange markets, dealing, payments, settlement and accounting practices, risk management, and use of appropriate technology and information and computer systems

C 2 MONETARY POLICY AND INSTRUMENTS

C 2 A Monetary Policy and Instruments (Vienna Institute)

Target All staff concerned with monetary policy

Purpose The course provides the building blocks to develop and evaluate monetary policy approaches

Curriculum The focus is on the design and implementation of monetary policy (including intermediate and final objectives) as well as on the interaction between financial and real variables The module also covers monetary policy instruments and operating techniques, the liberalization of financial

markets, central bank and official money market procedures and money market management in a context of domestic and external disturbances. The course includes frequent reference to experience in market economies and the relevance of these examples for economies in transition, as well as case studies of the more advanced economies in transition.

C 3 MONEY AND BANKING STATISTICS

C 3 A Money and Banking Statistics

Target Candidates should normally have several years of experience in, and responsibility for, compiling and analyzing money and banking statistics.

Purpose The course, which is organized with the cooperation of the Financial Institution Division of the IMF Statistics Department, is designed to assist officials in the organization of reporting systems, definition of concepts, and compilation of monetary data for analysis and policy. This is done according to the conceptual framework of the Fund's draft of "A Guide to Money and Banking Statistics in IFS" and developments in the methodology since the publication of the Guide. As with other statistics courses, this course is designed primarily for officials engaged in the compilation of money and banking statistics, rather than in the analytical use of such statistics. The course is focused on lectures and case studies related to the compilation of financial data.

Curriculum Analytical framework for the Fund's money and banking statistics, emphasizing the use of these statistics for policy making and analysis, and the relationship between these data and other types of macroeconomic statistics, different sectors of the economy, classification of financial instruments, technical adjustments to balance sheets, detailed examination of the relation of money and banking statistics to statistics on international liquidity, government finance, balance of payments, and the flow-of-funds statistics, analysis of monetary data in a macroeconomic policy context.

Case studies cover the compilation of the accounts of the monetary authorities, deposit money banks, other banking institutions, and monetary and banking surveys. Other exercises deal with the revaluation of foreign currency accounts and the calculation of flow data. During the course, some sessions are devoted to the organization and operations of the International Monetary Fund.

C 3 B Money and Banking Statistics

Target Officials involved in the compilation of monetary statistics

Purpose/Curriculum The seminar is aimed primarily at data compilers and emphasizes definitions and concepts of monetary data, the analytical framework for organizing these data, and the macroeconomic and institutional context in which the data are to be analyzed. The seminar covers financial aspects of the different sectors of the economy, the nature and classification of financial instruments, the use of balance sheets and other relevant sources to compile statistics, including monetary and banking surveys, and the relation between monetary statistics and other macroeconomic statistics, including those for the balance of payments, government finances and national accounts. The seminar will consist of lectures and case studies.

C 4 FOREIGN EXCHANGE POLICIES AND OPERATIONS

C 4 A Monetary and Exchange Operations

Target Mid-level central bank officials who have been trained in economics and directly involved in analytical/operational aspects of monetary and foreign exchange management

Purpose The course, organized in cooperation with the Monetary and Exchange Affairs Department, is designed to focus on implementation of monetary and exchange policies--and provide an integrated view of the structural and institutional underpinnings of the implementation framework. It aims to broaden participants' understanding of the link between monetary programming and the conduct of policy at the central bank, and focuses specifically on analytical and technical aspects of policy formulation and implementation.

Curriculum Objectives and instruments of monetary and exchange rate policies, targeting/information systems, market-based mechanisms (including open market operations), exchange regimes (encompassing exchange rate systems as well as exchange arrangements) and their relationship with monetary policy, regulatory and operational aspects of monetary and foreign exchange operations and domestic debt management, linkages between the conduct of monetary policy and the regulation and supervision of banking and the payments system, operational relationships between the central bank, government and the banking system, role and scope of technical assistance provided by the IMF Monetary and Exchange Affairs Department in central banking and related areas

C 4 B **External Sector Policies**

Target Mid to senior-level officials who have an advanced degree in economics. Applicants familiar with microcomputer techniques, particularly the use of spreadsheets, are most likely to derive maximum benefit from the course.

Purpose The course is designed to provide an in-depth analysis of external sector policies. It is aimed at broadening participants' understanding of the issues involved in the formulation of external sector policies in the context of a macroeconomic framework for adjustment and growth.

Curriculum External sector policies within the framework of macroeconomic adjustment and structural reform. Topics include

- Choice of exchange rate regimes
- The role of the exchange rate of economic adjustment, currency convertibility, trade strategies for growth and adjustment,
- Issues in international reserves and external debt management
- Foreign direct investment

Case studies are used to provide real world illustrations of the use of external policy instruments and external sector reforms.

The second part of the course consists of a series of workshops in which participants are given the opportunity to examine in detail the effectiveness of alternative external policies for a case-study country and to prepare an economic adjustment program for the case-study country that includes external policies, as well as other macroeconomic policies and reforms, intended to achieve major economic objectives.

C 5 **PAYMENTS SYSTEMS**

C 5 A **Balance of Payments Methodology**

Target Candidates should have prior training in accounting and statistics and should be employed in the compilation or in the use of balance of payments statistics.

Purpose The course is intended to familiarize compilers of statistics with the methodology of classification, it is not designed for officials employed in the analysis of balance of payments developments. The course aims at improving balance of payments statistics. It consists of a series of lectures, discussions, practical exercises and case studies. During the lecture periods, the participants are afforded an opportunity to discuss

problems that they have actually encountered in the course of their work on balance of payments in their respective countries. In addition, workshop sessions, consisting of practical exercises, illustrate the application of the basic methodology to a typical set of circumstances.

The lectures focus on the conceptual framework for the balance of payments, as presented in the Fund's Balance of Payments Manual. Basic concepts, accounting principles, and matters of classification are dealt with in the context of the larger system of social accounts.

Curriculum Accounting rules of the balance of payments (including the international investment position), the extent of the reporting economy, double-entry accounting, current and capital accounts, valuation, timing, and the unit of account, classification of balance of payments items--e.g. merchandise, direct investment and reserves, sources and methods used in collecting and disseminating the statistics.

C 5 B Large Value Payment Systems

Target Senior and middle-level managers with responsibility for international operations and policy.

Purpose/Curriculum The seminar emphasizes policy issues for central banks in setting up a large value payments system (LVPS). The seminar presents and discusses a few different models of LVPS (such as the French, Swiss and U.S. systems) focusing on the variables associated with policy concerns and decisions from the perspective of a central bank. It reviews the potential role of a LVPS in the conduct of monetary policy and improving performance in the economy more broadly. Among the issues covered are risk management, the role of the central bank in clearing and settlement, gross versus net settlement, real-time settlement, internal and external security, communications and automation, costing and pricing of services, membership in and access to the LVPS, and account structure (centralized or decentralized).

C 6 FINANCIAL MARKETS

C 6 A Financial Markets

Target Economists, Financial Analysts, Data Technicians, Grade 10 and above, such as department directors and assistant directors and operations staff such as new foreign exchange traders, from Foreign Exchange (FX), Credit, and Economic Studies departments.

Purpose With a Central Bank's entry into an interbank FX market, staff need to learn how to function expertly in a new financial markets environment. Upon completion of this training, participants will understand

- a basic economic theory,
- b how to operate in a deregulated economy,
- c price of interest rates and price of goods,
- d elements of FX,
- e full integration in actual operations

Curriculum FX operations, money markets, interest rates, balance of payments, flow of foreign exchange, flow of funds analysis, fiscal policy - revenue and expenses and tax issues

C 7 CREDIT FUNCTIONS WITHIN A CENTRAL BANK

C 7 A Credit Functions within a Central Bank

Target Economists, Financial Analysts, Data Technicians, Grade 10 and above, from Credit Department

Purpose Credit Department staff have specialized training needs to gain expertise in the global, macro-economic aspects of managing international credits, discount operations, movements and limits of interest rates, banking liquidity, accountability, informational data, statistics, studies, and follow-up activities

Curriculum International credits, discount operations movement and limits of interest rates (as they will be directly influenced by regulatory and political factors), banking liquidity, accountability, informational data, statistics, economic studies, methodologies employed abroad, especially American and English

C 8 DATA COLLECTION AND EVALUATION

C 8 A Data Collection and Evaluation

Target Economic Studies Department staff, grade 10 and above

Purpose Upon completion of this seminar, participants will understand the processes followed in the effective collection and evaluation of information, data base management, international economics and finance, public finance, and documentation

Curriculum Data collection, evaluation and management, international economics and finance (to better position staff interfacing with other central banks), public finance (money and organization), documentation

C 9 CENTRAL BANK ACCOUNTING

C 9 A **Central Bank Accounting**

Target Staff in the Controller General Department, Grade 10 and above

Purpose To improve accountants' knowledge, skills and abilities to effectively implement the Central Bank's technological changes and to gain expertise in current banking techniques

Curriculum Upon completion of this seminar, participants will understand the latest banking techniques and current accounting procedures - American, English, and French - in cashier operations, foreign currency, financial administration, including accounting management, and positioning

Note Staff in the Controller General Department need to learn systems of more developed countries - American, English, French We recommend two staff members - Department Director and Assistant Director - to attend programs in French speaking countries, 1 e one in France, one in Canada

C 10 MANAGEMENT SKILLS

C 10 A **Management Skills Seminar**

Target Designed for "managers," grade 10 and above, who have some experience being in charge of a working group or who will soon be assigned that responsibility

Purpose The seminar is designed to teach managers effective ways of dealing with co-workers and supervisors, and build teamwork in the departmental setting The course is highly interactive and requires substantial participation by attenders

Curriculum At the end of this four day course, participants will be able to

- understand the importance of team building and the manager's role in team building,
- practice effective conflict resolutions skills,
- utilize listening skills to facilitate effective communication, and
- utilize a facilitative approach to improve decision-making and to conduct productive meetings

Part D: Specialized Topics in Finance

The following is an illustrative list of the kinds of courses that

could be delivered in French in Madagascar. These options are taken from the catalog of the New York Institute of Finance (NYIF), which is perhaps the single best model for such courses.

D 1 Portfolio Management

The purpose of the course is to develop the skills needed to build and maintain portfolios containing equity, debt, commodity and other products. The course considers investor objectives and constraints, liquidity, macroeconomics and microeconomics, and the relation of investment returns to changes in capital market expectations. Students learn how to quantify risk/reward factors, asset allocation and hedging techniques. The class uses case studies to understand portfolio management strategies and styles.

D 2 Global Currency and Payments Processing

This course presents an overview of the processing requirements in a global environment. It explores the current process of FX negotiations, comparisons and settlement work and document flow. The course outlines the role of established and emerging industry organizations such as CEDEL, DTC, Euroclear, S W I F T, as well as many others. Multi-currency needs for trading and clearance systems as well as P&L processing and internal and external reconciliations are discussed with an emphasis on emerging developments in various countries and industry support organizations.

D 3 Interest Rate Risk Management

This course deals with managing portfolios with fixed-income instruments. It involves monitoring trends in international capital markets, measuring interest rate risk, and utilizing sophisticated strategies and techniques to defend against interest rate changes. It teaches students to assess sources of risk, government fiscal, monetary and foreign trade policies, central bank operations, characteristics of fixed-income instruments and trading systems, and clearing, settlement, and margins. Students learn pricing measures, particularly present value versus internal rate of return, the monetary system and inflation, real versus nominal rates, and duration and convexity in interest rate exposure. The class discusses international parity conditions, including purchasing power parity and interest rate parity (spot vs forward), forward rate agreements (FRAs), comparing futures and FRAs, pricing futures versus pricing forwards, and hedging interest rate assets and liabilities with FRA futures.

D 4 Money and Banking (Introductory)

This course examines major economic concepts and their impact on the U.S. securities and banking industries, as well as monetary theory, banking practices, the Federal Reserve System and

international economics The course is for those who need to develop economic forecasting skills and understand the monetary system, and those without a college-level economics or money and banking course who intend to work in banking or investment It reviews the balance of payments, and the role of gold and capital markets

D 5 International Banking (Introductory)

This course presents the environment of international banking and factors unique to cross-border lending and investment including country risk analysis and management, differing legal and regulatory arrangements and the impact of foreign exchange rates and the Eurodollar market The course is intended for those planning or enhancing careers in international banking, investment analysis and securities trading It teaches international risk and credit analysis, principal methods of coping with repayment problems and recent official actions on debt problems It also covers international bank supervision and capital adequacy standards

D 6 Introduction to Investing in the Global Markets

The seminar compares the international stock exchanges with the U S exchanges Trading practices, exchange rules, liquidity, types of issues (including ADRs), and costs of dealing are some of the subjects explored

D 7 Foreign Exchange Processing (Introductory)

This course details the processing and accounting procedures for the foreign exchange and foreign exchange options business It is intended for foreign exchange clerks, managers, systems staff and auditors It discusses market terminology, operations work flow and risk/control issues, financial accounting and reporting policies, techniques for calculating realized and unrealized P&L, and NOSTRO reconciliation and inquiry functions

D 8 Global Trade Execution, Clearance, Settlement and Custody (Introductory)

This two-day seminar offers a complete overview of the global markets This introductory program examines the interaction between various departments involved in execution, clearing, settlement and custody functions of processing international securities It explores the wide variety of procedures used by the securities exchanges in the developed markets and the emerging markets It also examines the regulatory environment, foreign currency restrictions, tax withholding policies, disclosure and the availability of information, clearance and settlement proficiency in markets as varied as Brazil, Taiwan, the U K and Germany The student learns about the changes in technology and role of

custodians and DTC, CEDEL, Euroclear and SWIFT

D 9 Foreign Exchange Markets (Introductory)

This course examines how the foreign exchange markets function, reviewing actual market activity. It is intended for foreign exchange staff in commercial banks, brokerage firms, insurance companies and the corporate treasury. It covers the roles played by commercial banks, brokers and central banks, how exchange rates are determined, how trading decisions are made, the effective uses of the products, including spots, forwards, swaps, futures and options, risk management strategies, and forecasting techniques. The prerequisite course is NYIF "Money and Banking" or "Economics," or equivalent experience.

D 10 Foreign Exchange Mathematics (Intermediate)

This course explains the math of foreign exchange instruments and pricing implications, using case studies. It is intended for foreign exchange staff in commercial banks, securities firms and international corporations. It reviews the FX instruments and their interrelationships. It teaches the math of the first generation instruments (spots, forward outright, swaps, cross rates and EMS), then follows with the math of the second generation instruments (futures, options on futures, and OTC as well as listed options on cash). The prerequisite is NYIF "Foreign Exchange Marketplace" or equivalent experience.

D 11 Federal Reserve Structure and Policy (Introductory)

This course focuses on the formation and organization of the Federal Reserve as it affects the operation of monetary policy and its impact on economic growth, relative rates of inflation and the interest rate structure. The course is designed for those planning careers in banking, investment analysis or securities trading. It teaches how the Federal Reserve conducts open market operations, discount rate policy and reserve requirement policy. It also covers other related activities including exchange rate operations, bank supervision and capitalization and coordination of international monetary and financial policy.

D 12 Economics/International Economics (Introductory)

This course is intended for those planning or enhancing careers in banking, investment analysis or securities trading and marketing. The seminar will cover the main sectors of the U S economy and the international sector of the U S economy, as well as the basic terminology and measurements used to analyze economic growth in both domestic and international trade and foreign investment. It emphasizes the role of market pricing and how equilibrium prices and quantities of goods are determined under different market structures including monopoly, oligopoly, imperfect competition and

fully competitive market conditions. It also discusses the role of market pricing of foreign exchange, and the impact on American trade and investment flows in recent years of fixed exchange rates, floating exchange rates, or forms of managed floating rates in foreign countries.

D 13 Economics of Foreign Exchange (Introductory)

This course focuses on the economic determination of foreign exchange rates and their origin in international trade, the impact of changes in trade patterns, or international investment flows and capital market demand and supply. It is intended for those planning or enhancing careers in international banking, investment analysis and securities trading. It teaches the principles of types of exchange rate systems utilized in the Group of Seven countries including fixed rates (IMS), freely-floating rates and forms of managed floating. It also covers current exchange rate practices in new and emerging markets.

D 14 International Economics (Intermediate)

The course introduces the basic concepts of international economic theory and the tools of financial and economic analysis. The prerequisite is NYIF "Economics," "Money and Banking," or a similar course.

D 15 International Finance (Intermediate)

The course shows how the concepts of international economic theory can be applied to financial management. A prerequisite is "International Economics," "Economics," "Money and Banking," or equivalent experience.

D 16 Taxation of Financial Instruments and Transactions (Intermediate)

This course provides an in-depth discussion of the tax treatment of financial instruments and transactions, domestic and international, including equity, debt, currencies and derivatives, and strategies involving those instruments. It is intended for those interested in understanding the impact of tax considerations on investment decisions. The prerequisite is NYIF "Financial Accounting" or equivalent experience, non-graded.

D 17 Money Market (Introductory)

This course examines the short-term fixed income market. The instruments, the players, and trading strategies. For junior traders, assistant portfolio managers, money market sales staff and other fixed-income personnel. The course covers the impact of the Federal Reserve System, banks and dealers, the interrelationships of money market instruments, the Treasury yield curve, and repos.

and reverse repos The prerequisite is some experience in the money market area

Part E. Quantitative Methods

E 1 Introduction to Statistics

Elements of statistics include probability and probability rules and distributions, binomial and normal distributions, sampling, estimation, hypothesis tests, regression analysis, multiple regression and analysis of variance

E 2 Introduction to Econometrics

This course includes introduction to regression, regression theory, multiple regression, regression extensions, correlation, serial correlations, simultaneous equations, the identification problem, estimating techniques and decision theory

E 3 Linear Algebra

Linear algebra includes equations and matrices, determinants, vectors and vector spaces, and linear transformations

E 4 Time Series Analysis

Time series analysis includes stationary stochastic processes, time domain, frequency domain, state space models, autoregressive-moving average models, and model building and prediction

III. RECOMMENDED STUDY TOURS ABROAD FOR SENIOR STAFF

A United States Federal Reserve Bank

A natural destination for Madagascar's trainees is the Federal Reserve Bank. We believe that the current long-term advisor from the Federal Reserve Bank of New York is completely familiar with courses to be offered by the Fed and how applicants are selected. The Federal Reserve Bank has told KPMG Barents Group that the Central Bank of Madagascar is in direct contact with the Fed. We assume that training opportunities offered by the Fed are made known to BCM through the offices of the long-term advisor.

B Bank of Canada

A study tour to the Bank of Canada would provide a first-hand review of policies, procedures, and methodologies employed in the management of human resources--personnel planning, performance appraisal, classifications and compensation, and training and development. It would also review the role of the central bank--its structure, policies, procedures, methodologies employed in

economic research, and accountability functions in a market-oriented economy. Suggested participants would be the Director General and four Department Directors from foreign exchange, credit, human resources and "Etudes "

C Bank of France

Officials of the Bank of France could be contacted for appointments to arrange briefings on the functions and operations of their departments. The Bank of France also offers on-the-job training (OJT) assignments of from two weeks to two months.

Study of French approaches and practices would most usefully occur at the Centre de Formation Professionnelle Bancaire (CFPB), a national organization of which the Bank of France is a member. Courses offered include monetary and financial policy, international capital and currency markets, regulatory and technical developments in currency markets, techniques in credit analysis and risk management, and marketing and management organization practices. CFPB also arranges one- and two-week special courses designed specifically for institutions abroad, and these could be delivered in France or in Madagascar.

Other potential sources of training in France include the Caisse Francaise de Developpement, the Institut Technique de Banque International (ITBI), and the Centre d'Etudes Financieres (CEFEB).

D Francophone African Institutions

The Centre Africain d'Etudes Monetaires, a research and policy organization based in Dakar, Senegal, is not a training institute per se, but has organized 15-day seminars on subjects of interest to central bankers which have been held in Senegal, Cameroon and Zaire.

The Banque Centrale des Etats d'Afrique de l'Ouest (BCEAO), also based in Dakar, has a large training department. It offers comprehensive 18-month training programs for mid and senior level central bankers. Classes begin at various times throughout the year. Class size approximates 35. BCEAO is also able to design courses to a client's specifications. It is not yet clear whether BCEAO provides courses to central banks of countries, such as Madagascar, that are not members of the Franc Zone.

E IMF Institute

The IMF Institute is based in Washington DC at IMF headquarters. Since its establishment in 1964, the Institute has provided specialized training in economic analysis and policy for officials of member countries of the IMF. At the end of 1993, approximately 8,900 officials from 177 countries had participated in Institute courses and seminars. During 1995, 16 courses and two seminars at

headquarters are planned. The two seminars are designed for senior officials and participation is by invitation only. The Institute is a specialized department of the Fund which provides training in economic analysis and policy and related subjects for officials of member countries. Two courses are offered in French: Financial Programming and Policy, September-November 1995 (closing date for applications, April 14) and External Sector Policies, April-May 1995 (closing date already past). Courses vary from six to ten weeks, depending on the subject matter, the seminars for senior officials do not last more than two weeks. Official application forms must be submitted for all courses, and language tests may be required.

The Institute also gives courses and seminars abroad, which are more condensed than those at headquarters. These include courses given in French.

The IMF has a resident representative in Antananarivo who is in close contact with the Central Bank and who can assist with contacts with the IMF Institute.

F World Bank Investment Department

The financial technical assistance programs of the World Bank Investment Department include a series of seminars on central bank management of foreign currency reserves. The main series, comprising "Policy Issues" and "Practical Aspects," is offered on a regional basis to central bank senior management and portfolio managers, respectively. Specialized seminars are offered on an ad hoc basis to address narrower subjects relating to investments.

The Investment Department manages more than \$25 billion for the World Bank Group. These multicurrency portfolios are actively managed against the Bank's own benchmark, which was internally developed to reflect the Bank's financial and investment policies. Investment decisions are taken on a decentralized basis and traders' performance is measured against the benchmark. The seminars are based on the Department's experience in developing an integrated risk management and control system. The course schedule for 1995 will be available soon.

Typical courses in the Seminars in Central Bank Reserve Management series are as follows:

a Policy Issues

Policy Issues is a two-day seminar for central bank governors, deputy governors and directors. The seminar develops a decision-making framework under which senior management can focus on key asset management parameter, delegating day-to-day investment decisions to staff under well-defined risk limits. Issues covered include:

- Determination of an investment strategy
 - Active versus passive management
 - Internal versus external managers
- Establishment of total risk tolerance
- Control of credit and market risks
- Measurement of performance and attribution of results
- Institution-building
 - Legal, audit, credit review and accounting functions
 - Information systems and investment technology

b Practical Aspects

Practical Aspects is a five-day seminar for portfolio managers, traders and operations staff. The seminar presents in detail the risk management and performance measurement systems needed to implement a decentralized management strategy. Issues covered include

- Development of a benchmark portfolio that embodies senior management's policy and strategic decisions,
- Risk control systems for passive and active management strategies,
- Performance measurement vis-a-vis an internal or external benchmark,
- Investment instruments and strategies to manage risk and add value to the portfolio,
- Credit review, legal, audit and accounting,
- Information systems and technology

c Special Focus Seminars

Specialized seminars address technical issues related to the investment process. The first in this series covers investment technology and management information systems. Issues covered include

- Market information systems,
- Real-time risk monitoring systems,
- Automation of confirmation and settlement process,
- Electronic payment systems, and
- Benchmark and performance measurement systems

IV. STUDY PROGRAMS ABROAD FOR MIDDLE MANAGERS AND BANK SUPERVISORS

A EDI Courses

The World Bank's Economic Development Institute (EDI) presents a large number of courses and seminars each year, ranging from one week to two months in duration. These are aimed at middle level managers as well as more senior officials, but most participants

are under 50 years of age except in Europe/NIS where the knowledge base on market-oriented activities is low among senior officials. Most EDI courses in 1995 are held in Eastern Europe/NIS. Only a few are offered in French or in Africa. Those presented in 1995 touching on central bank interest and/or given in Africa are noted below. Similar courses are likely to be presented each year at various locations. The selection of course offerings in French is limited.

<u>Title</u>	<u>Location</u>	<u>Starting Date</u>
IN FRENCH		
Money and Capital Markets Development in Africa	Abidjan, Cote D'Ivoire	January
Private Sector Development in Africa	Bamako, Mali	January
IN ENGLISH		
Money and Capital Markets Development in Africa	Capetown, South Africa (not yet determined)	January May June
Private Sector Development in Africa	Dar Es Salaam, Tanzania	January
Banking and Risk Management in Africa	not yet determined	February
Bank and Finance Training for Practitioners	Yekaterinburg, Russia	May
Bank Credit Policy and Investment Analysis II	Vienna, Austria	January
Bank Credit Policy for Practitioners	Almaty, Kazakhstan Almaty, Kazakhstan	March April

At a yet-undetermined date in 1996 EDI intends to sponsor a course on Private Sector Development in Madagascar.

The World Bank resident representative in Antananarivo can provide further details of EDI activities and also can advise on deadlines for submission of applications and on participant selection criteria and processes.

B Bank Supervision Courses

Specialized courses abroad on bank regulation and examination are recommended for staff of CCBEF--Commission de Controle des Banques et Etablissement Financiers--the commercial bank regulator

One of these is the Federal Reserve System-World Bank orientation seminar for bank supervisors from developing countries. The objectives and curriculum address bank analysis using three components of CAMEL, a system for rating the quality of bank capital, assets, management, earnings, and liquidity, credit analysis stressing portfolio quality, and fundamentals of banking which familiarizes participants with the U S banking system and how it is regulated.

The course is conducted in English, the Central Bank should explore with the World Bank the scheduling a similar course in Africa in French. An alternative would be to wait until Commission staff are sufficiently fluent in English.

V STRATEGIC MATCHING OF TRAINING OPPORTUNITIES AND PARTICIPANTS

We assume that BCM, with assistance from USAID, will select the population of about 50 trainees. All trainees should participate in domestic study. For planning course size we assume that all trainees would attend courses in Part A, that 50-80 per cent of the trainees would participate in each course in Part B, and perhaps 20 per cent would attend the rest.

Courses in Parts A and B should be given over several weeks, two or three hours per day, except the initial "Transition" course which would require full time attendance for two weeks. Part C and D courses could have more flexible formats.

It appears reasonable to assume that no Bank official could devote more than six weeks each year to training, given the weight of their continuing operating responsibilities. Mid-level employees may be available for the full six weeks, more senior employees for four weeks, and upper management personnel only for two weeks.

Overseas study and observation tours should be given only as-needed to the most senior, essential or promising personnel, and wherever feasible as a reward for successful completion of Parts A, B and C of the domestic study. This policy may be modified to accommodate useful courses that become available before the local training cycle is completed, but nonetheless the principle remains.

Very careful screening is important in selecting trainees to go abroad because of the cost of this training. Using study or observation tours as a perquisite is not productive or efficient. Staff selected for overseas study and observation tours should be senior managers who are not close to retirement, or highly promising younger managers. Anyone sent abroad should fully understand the background material, having successfully completed

the domestic study Those selected should have the competence and character to profit from the training and apply it usefully at the Bank Consultation with the IMF resident representative would be useful in selecting participants Priority would be accorded participants in relevant areas working on tasks of great importance to BCM Examples would be managing the discount rate, portfolios, and international reserves

Overseas study for senior managers may at times require more than the two to four weeks they are nominally available for training, requiring especially careful planning to ensure training cost-effectiveness Most upper management trainees should be considered available only for seminars abroad that last not more than several days

Observation tours would be the capstone of the training program, lasting for one or two weeks Tour destinations could be one or more branches of the Federal Reserve Bank for English speakers and the Bank of Canada or Bank of France for trainees not comfortable in English The visit to a central bank would be followed by a brief visit to a major financial district in which the bank operates, which would illustrate to BCM managers the operation of an open market in government securities and how a central bank interacts with the money market through anonymous traders Concrete plans for such visits can be arranged after BCM and USAID have agreed upon a concrete training program and discussed training requirements of specific candidates