



# MBA IN BANKING AND FINANCE PROGRAM

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## THEME

# OPTIMIZATION OF BANK CASH UNDER LIQUIDITY MANAGEMENT:

CASE OF ECOBANK MALI.

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#### DEDICATION

I solemnly dedicate this Master's dissertation to the Lord Jesus Christ of Nazareth - the holy son of the living God – for, by grace, he raised me by the power of the Holy Spirit up to the educational level of Master graduate. I will always remember his blessing; may honor and praise be to him for the glory of the heavenly Father.

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## ACRONYMS

ACBF:	African Capacity Building Foundation
ALCO:	Assets and Liabilities Committee
ALM:	Assets and Liabilities Management
BCEAO:	Banque Centrale des Etats d'Afrique de l'Ouest
CESAG:	Centre Africain d'Etudes en Sciences de Gestion
ECOWAS:	Economic Community of West African States
EML:	Ecobank Mali
ETI:	Ecobank Transnational Incorporated
G20:	Group of the 20 (world twenty major economies)
LFP:	Large Funds Providers
MBA:	Master of Business Administration
MCO:	Maximum Cumulative Outflow
NEA:	Non Earning Assets
NIB:	Non Interest Bearing
TSU:	Treasury Sales Unit
USD :	United States Dollar
VaR:	Value at Risk
WAEMU:	West Africa Economic and Monetary Union
WAMU:	West Africa Monetary Union
XOF:	West African Franc

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#### ABSTRACT

The latest world financial and economic crisis occurred as a result of two decades of fundamental financial changes affecting banking business management; for, banks are the most important financial intermediaries in the modern economy.

Unfortunately, bankruptcies were the main events of the crisis; showing banking sector as the weak point of the world financial globalized-system. Thus, the world standard banking Groups faced cash troubles.

This motivated us to study the theme "optimization of bank cash under liquidity management: case of Ecobank Mali" in order to highlight the major issues pointed out at the end of the crisis.

Consequently, this study is intended to show the importance of cash management in achieving the financial goal of profitability, which is critical to the bank's stress test and solvency. Hence, the study of treasury management risks and tools; seeing treasury is supposed to become a profit center contributing to performance.

For banking entities, the term "Cash management" is part of "Treasury management". Effective treasury risks management is performed within the framework of Assets & Liabilities Committee (ALCO) and Assets & Liabilities Management (ALM) operating systems which involve the use of various strategies.

Notwithstanding its strengths, Ecobank Mali treasury and liquidity management system still need improvements. Hence, the relevance of recommendations intending to both enhance the effectiveness of ALCO and ALM management system; and stimulate the development of an efficient money market.

Finally, let us note down that the recurring excess liquidity is a major structural issue which requires implementing the innovative financial instruments which contributed to develop efficient money markets in the world developed financial markets.

#### RESUME

La dernière crise mondiale de la finance et de l'économie s'est déclenchée après deux décennies de mutations financières fondamentales qui ont impacté la gestion financière de l'activité bancaire; les banques étant les principaux intermédiaires financiers de l'économie moderne.

Malheureusement, les faillites bancaires ont été les principaux événements de la crise; ce qui a révéler le secteur bancaire comme étant le point faible du système financier mondial. Ainsi les groupes bancaires de référence mondiale ont été confrontés à des problèmes de trésorerie.

Cela nous a motivé à étudier le thème « optimisation de la trésorerie bancaire dans le cadre de la gestion de liquidité: cas d'Ecobank Mali», afin de mettre en évidence les enjeux majeurs soulignés au sortir de la crise.

Par conséquent, cette étude vise à montrer l'importance de la gestion de trésorerie dans la réalisation de l'objectif de rentabilité financière qui est essentiel au stress test et à la solvabilité bancaire. D'où l'étude des risques de la gestion de trésorerie et ses outils; la trésorerie étant censée devenir un centre de profit contribuant au résultat.

Pour les entités bancaires, la « gestion du solde de trésorerie » fait partie de la « gestion de trésorerie.» Une gestion efficace des risques de trésorerie s'effectue dans le cadre des dispositifs que sont le Comité de gestion de bilan et la Gestion Actif-Passif qui requièrent la mise en œuvre de diverses stratégies.

Nonobstant ses forces, le système de gestion de trésorerie et de liquidité d'Ecobank Mali a encore besoin de perfectionnement. D'où, la pertinence des recommandations visant à la fois à perfectionner le système de gestion de l'ALCO et de l'ALM et stimuler le développement d'un marché monétaire efficient.

Enfin, notons que la récurrence des excédents de liquidité est un problème structurel majeur qui nécessite la mise en œuvre des instruments financiers innovateurs qui ont contribué à développer des marchés monétaires efficients dans les marchés financiers développés du monde.

#### INTRODUCTION

Since the last quarter of year 2008; the global financial and economic trend is still making a slow recovery for, the last world financial and economic crisis was the major one since the great depression of 1929. In the meantime, the world of finance is still reluctant to implement the famous reforms of global financial system as considered in the framework of the G20. As for the banking sector in particular, the crisis definitely pointed out the top priority to study the actual use of Basle II committee's principles.

However, during the two decades before the crisis, the field of finance has witnessed some fundamental changes known as the financial deregulation or the liberalization of capital flows and globalization. These changes led to an unprecedented development of financial markets on which huge amounts of money are negotiated.

The consequences of this trend on banking institutions encompass financial innovation (derivatives and securitization), financial engineering and improvements in risk management that enabled banks to expand their product lines, to offer more efficient services and to control the risk of ever more complex financial instruments and the growing volume of financial transactions<sup>1</sup>.

In fact, with regards to their activities, it can be said that banks are the most important financial intermediaries in the modern economy. They are financial service firms producing and selling professional management of the public funds as well as performing many other roles in the economy. Their success hinges on their ability to identify the financial services the public demands, produce those services efficiently and sell them at a competitive price<sup>2</sup>.

Unfortunately, throughout the crisis – most events of which were bankruptcies like Lehman Brothers' failure – the banking sector showed itself as the weak point of the system in such a way that governments of major western countries, even the most liberal ones, were forced to intervene heavily in their financial and banking systems by the implementation of support plans to provide liquidity to banks by injecting tens of

<sup>&</sup>lt;sup>1</sup> Susan PHILIPS, Conference of the Bank Administrative Institute, Chicago, (04/11/1997).

<sup>&</sup>lt;sup>2</sup> Peter S ROSE, Commercial Banks, (1996).

billions of dollars to recapitalize the weaker institutions and ensure market access for refinancing.

Thus, the major world banking Groups which have been long regarded as the standard cash-managing banks because of their large profits earned in market transactions, were facing cash troubles further to liquidity stress in the markets.

In addition, it was the first crisis experience of the world financial globalized-system! Hence, the imperious necessity to highlight the major issues pointed out at the end of the crisis:

- What is the pertinence of cash in banking business' sustainability?
- What is the relevance of treasury management in the view of bank cash optimization?
- What is the relevance of effective liquidity management to banking business profitability?

However, as stated the governor of BCEAO on the occasion of the inaugural lecture of 2009-2010 academic year at CHEIKH ANTA DIOP UNIVERSITY of Dakar, "...we notice that..., the banking sectors of WAEMU member states were not affected."

As a matter of fact, such a comment raises questions about the experiences that African banking institutions can draw from the crisis; even if they are seemingly off the system yet.

- What about the efficiency of treasury management in WAEMU banking sectors?
- What is the diagnosis of African banks in general; and WEAMU zone affiliates in particular, with respect to liquidity issues?
- Does the BCEAO governor's statement stand as a challenge to the very principles of the model of "optimal cash"?

Given the model of "optimal cash" includes the principle of maximizing profits by investing profits and make some extra profits.

The study of the theme "optimization of bank cash under liquidity management: case of Ecobank Mali" is the approach we have chosen to answer the questions mentioned above. This study is intended to show the importance of cash management in achieving the financial goal of profitability which is critical to the bank's stress test and solvency. In this respect, we identify and study the various risks of treasury management likewise the systems and tools that are used in treasury; among which liquidity management is in focus as the fundamental instrument.

In light of the crisis, it is obvious that cash is strategic to banking institutions' solvency and sustainability; since a liquidity shortfall at a single institution can have systemwide repercussions.

And besides, the implementing of BCEAO last institutional reform<sup>3</sup> – which stresses transparency with the view to bring down the price of banking and financial services – is likely to increase competition within the banking industry in the area.

As a matter of fact, the "new deal" will require more dynamism and innovation from commercial banks which will have to be regardful to cash optimization; because the growth of credit portfolio is likely to slow down and banks will be left with no alternative but to increase the size of their investment portfolio.

Hence, the significance of this theme addresses WAEMU banks; one of which is Ecobank Mali. In fact, the treasury of the latter should become a profit center that contributes to a great extent to performance.

The study is confined to Ecobank Mali Head Office of Bamako. Notwithstanding constraints of resources and internship restrictions due to legal and ethical obligations of the bank's confidentiality; we benefited a fine office environment in treasury. Methodologically, the study is conducted with the theoretical approach which is a review of documentation on cash optimization and treasury management, especially liquidity. Then, the empirical approach is a study of Ecobank Mali practices with respect to the "Treasury textbook." Finally, seeing that the theme is a news subject we also searched on the internet.

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<sup>&</sup>lt;sup>3</sup>Institutional Reform, WAMU- BCEAO, (1<sup>st</sup> April 2010).

In our research we try to verify the assumptions that:

- Treasury management in general and liquidity management in particular, maximizes Ecobank Mali profitability and creditworthiness.
- Effective liquidity management is the major challenge to Ecobank cash optimization.

Apart from the Introduction and the Conclusion respectively at the beginning and at the end of this dissertation; the study will be made up of two parts. Each part is divided into two chapters of two sections each. The sections are divided into subsections. And subsections consist of points.

Indeed, part one is the Theoretical scope of cash management; the first chapter of which is Cash management. The sections in this chapter are entitled: Treasury function and Cash management strategies.

The second chapter is a comprehensive study of Bank's liquidity management. It includes sections on: Bank's liquidity and Liquidity management strategies.

Part two: Cash optimization in Ecobank Mali also includes two chapters. The first chapter is a presentation of Ecobank in two sections: An overview of Ecobank and Ecobank cash management system.

The second chapter deals with the Ways to Ecobank Mali cash optimization. The sections in the chapter are: Findings about Ecobank practices and Recommendations to optimize Ecobank treasury management.

## PART ONE

# THEORITICAL SCOPE OF CASH MANAGEMENT

Throughout history, banks have offered an increasing array of services. But all of the bank specific activities are risky and involve risk management. Besides, the recent trends in the banking industry such as proliferation, rising competition, rising funding costs, technological revolution, globalization of banking are as many pressures faced by banks.<sup>4</sup>

In the West Africa Economic and Monetary Union (WAEMU), bank business consists mainly in the traditional banking that is to say deposit taking and lending. This situation is due to the absence or marginal financial market institutions and subsequent trading. Also, the economic and legal environment is not adapted to carry on all the appropriate financial market operations on portfolio management or foreign exchange trading.

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<sup>&</sup>lt;sup>4</sup> Laurence SCIALOM, Economie bancaire, Ed. La découverte, (1999).

#### CHAPTER ONE: CASH MANAGEMENT

"In most countries, banks are the most important financial institutions for intermediating between savers and borrowers, for executing monetary policy and providing payment services. At the same time, the configuration of their portfolios makes them particularly vulnerable to illiquidity and insolvency".<sup>5</sup> Therefore, in the new international economic risk-bearing environment, cash management has become an utmost concern and a priority mission.

For banking entities, the term "Cash management" is part of "Treasury management". In fact, the scope of treasury management is larger for it includes funding and investment activities in addition to cash management.

Consequently, the optimization of bank cash requires the optimization of treasury management system within which liquidity management is specified as a key aspect. At last, dealing with cash optimization in the scope of a banking institution necessarily appeals to treasury management which is a set of techniques that enable a corporate or a group treasurer to manage treasury flows, to control them, to intervene on financial markets, to manage financial risks and to invest any temporary cash surpluses in short-term interest-bearing securities and loans to the most possible efficient way.<sup>6</sup>

## SECTION 1: TREASURY FUNCTION

Treasury is one of the most profitable areas of banking alongside investment banking. The inherent risk, however, is often played down or neglected. This is generally true for many banks in Europe, in the US, or in emerging markets. Given the specific characteristics of treasury activities, for instance large volumes, fast execution, electronic transfers and partly sophisticated products (derivatives); it is advisable to perform an enhanced-management of risks in the scope of treasury. Only appropriate risk management in treasury will ensure that profitable treasury activities can contribute to the overall profitability of the entire bank.

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<sup>&</sup>lt;sup>5</sup> Gillian G, Holway GARCIA, Deposit insurance in preventing bank crises, (1997).

<sup>&</sup>lt;sup>6</sup> PEYRARD, (1998).

#### I. BANK'S TREASURY

Treasury is a profit center that contributes to a great extent to the profitability of most banking institutions; the reason why in larger banks, treasury is a Division. It is the responsibility of the bank's treasurer to establish a regular information system to forecast cash receipts / disbursements, for which he should set the operating system (procedures, monitoring tools ...).

#### I.1 Organization of the treasury function

An adequate structure for treasury management goes beyond the responsibility of the treasury function alone. It involves the Board, a Mission Statement, the Asset and Liability Committee and other specialists, under the following profile.

✓ Mission statement

It is the road map that guides to achieve the board's vision, a key of success which enables an institution to move in the same direction, to create the change that will propel it forward. The importance of the mission statement relies on the fact that "each entity's senior management and governing board must set the institution's risk appetite by establishing appropriate policies, limits and standards, and by ensuring that they are followed and enforced. Within the institution, risks must then be measured, monitored and reported to key decision makers"<sup>7</sup>

✓ The ALCO

Asset and Liability management is the structural process that enables banks to apprehend and to control risks inherent in the daily pursuit of their activities.<sup>1</sup> It is an active management of a financial institution's balance sheet, aiming at maintaining a balanced growth of interest revenue.

The position of treasurer in the mid-bank financial circuit, and closely with senior management, helps him detect any slippage that may impact the cash. This is the reason why it is said that the treasurer has the alarm in the bank.

<sup>&</sup>lt;sup>7</sup> MEYER, (2000).

#### Chart 1: TREASURY MANAGEMENT



SOURCE: COBURN (Banking, p306) - Curtin University, Australia

## I.2 Accounting framework for understanding treasury management

Before discussing how treasury function can measure, monitor, control and report issues related to liquidity, interest rate, and foreign exchange, it appears useful to present the balance sheet and income statement of commercial banks.

ASSETS	LIABILITIES AND SHAREHOLDERS'EQUITY
• Reserves with the Central Banks	<ul> <li>Retail Deposits:         <ul> <li>Demand deposits</li> <li>Savings deposits</li> <li>Term deposits</li> </ul> </li> </ul>
<ul> <li>Retail Loans</li> <li>Corporate Loans</li> <li>Interbank Loans</li> <li>Government Bonds</li> <li>Fixed Assets</li> </ul>	<ul> <li>Corporate Deposits: <ul> <li>Demand deposits</li> <li>Term deposits</li> </ul> </li> <li>Interbank Deposits</li> <li>Subordinated Debts</li> </ul>
OFF- BALANCE SHEET	Equity OFF-BALANCE SHEET

#### Chart 2: A SIMPLIFIED BALANCE SHEET OF COMMERCIAL BANKS

The main features of Commercial banks' balance sheet are:

- A large deposit base
- A large loan portfolio
- Marginal other activities
- > Retail and corporate deposits are the main sources of commercial banks' funds.

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- Demand deposits and savings deposits are withdraw-able on demand. They are said to have 'undefined maturities' as they could stay in the bank for a little time as a few days or as long time as a few years.
- Term deposits have a fixed contractual maturity. Quite apart from money raised from the public, there is a money market referred to as interbank market, where banks can borrow from each other.
- > Long term funds include subordinated debt and equity.
- Assets are mainly reserves held at Central banks and a large loan portfolio of retail loans, corporate loans, interbank loans (money market or risk sharing), government bonds and fixed assets.
- Off-balance sheet operations include future or vital commitments of banks that have not generated any treasury flow. That is:

- Foreign currencies or securities to be received or to be paid out as well as forward contracts on financial instruments; which are essentially foreign currency and interest rate contracts (forward agreements, swaps, and options)
- Bank commitments: commitments to advance funds on the behalf of a third party or to acquire an asset on a predetermined date. These commitments can be optional or irrevocable.
- Guarantees: A bank can guarantee some of its customers' commitments vis- à vis a third party.

#### Chart 3: COMMERCIAL BANKS PROFIT AND LOSS STATEMENT

Oper-	Operating expenses
= Op	erating profit
+ (	Other operating expenses Amortization and provisions
= Pro	ofit before tax
-	Tax expenses
= Pro	ofit after tax

- Incomes include interest income earned on loans and bonds and income from various services or trading.
- Expenses concern interest expenses (coast of deposits and subordinated debt), amortization and loan provisions and operating expenses.

We have provided an aspect of treasury function organization within a banking institution. It involves different actors as we stated earlier that treasury management goes beyond the responsibility of the treasury function alone. The clarification of the main features of commercial banks balance sheet is necessary to understand the treasury management strategies in terms of liquidity, interest and currency risks.

#### II. RISK PROFILE OF THE TREASURY ACTIVITIES

Banks nowadays perform a large range of specific activities as listed in the second Banking Directive of the European Commission<sup>8</sup>:

- ✓ Deposit taking and other forms of borrowing
- ✓ Lending
- ✓ Financial leasing
- ✓ Money transmission services
- Issuing and administering means of payments (credit cards, traveler's checks and banker's drafts)
- ✓ guaranty and commitments
- ✓ trading for own account or the account of customers in:
  - money market instruments
  - foreign exchange
  - financial futures and options
  - exchange and interest rate instruments
  - securities
- ✓ participation in share issues and the provision of services related to them
- ✓ money brooking portfolio management and advice
- ✓ safekeeping of securities
- ✓ credit reference service
- ✓ safe custody service

#### **II.1** Treasury activities

Treasury Management includes a firm's collections, disbursements, concentration, investment and funding activities. In larger firms, it may also include trading in bonds, currencies, financial derivatives and the associated financial risk management.

But as for bank treasury activities are:

✓ the management and control of treasury flows

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<sup>&</sup>lt;sup>8</sup> LASRY (1997)

- ✓ capital market operations such as:
  - money market lending and borrowing
  - foreign exchange trading
  - exchange and interest rate instruments
  - securities investment activities
- ✓ Financial risks management.

#### II.2 Treasury risks

Defining risk as changes in the firm value due to changes in the business environment; PYLE (1997) identified four sources of value loss:

- Market risk is the change in net asset value due to changes in underlying economic factors such as interest rates, exchange rates, and equity and commodity prices.
- Credit risk is the change in net asset value due to changes in the perceived ability of counterparts to meet their obligations.
- Operational risk results from cost incurred through mistakes made in carrying out transactions like settlement failures, failures to meet regulatory requirements and untimely collections.
- Performance risk encompasses losses resulting from the failure to properly monitor employees or to use appropriate methods.

In addition to this, we can also mention liquidity risk as another source of value loss for accordingly to its definition by BRANA, CAZALS and KAUFFMAN (1999): liquidity risk is the risk for a bank to be unable to meets short-term repayment obligations, especially demand deposit, due to the fact that assets in its possession would be insufficiently liquid.

Empirically saying, banks face three major types of risk:

- Financial risks including:
  - Liquidity risk
  - Interest rate risk
  - Currency/ exchange risk
  - Credit risk

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- Capital (leverage) risk

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- Settlement risk
- Delivery risks made up with:
  - Operation risk
  - Technological risk
  - New product (marketing) risk
  - Strategic risk
- Environment risks which are:
  - Fidelity risk
  - Economic risk
  - Competitive risk
  - Regulatory risk

Among the financial risks, liquidity risk, interest rate risk and currency (foreign exchange) risk are the constituents of treasury risk.

The Basel Committee (since 2000) considers liquidity - the ability to fund increases in assets and meet obligations duly - as crucial to the ongoing viability of any banking organization. The committee emphasizes the fact that, sound liquidity management can reduce the probability of serious problems.

Interest rate risk is the potential impact on an institution's earnings and net asset value of changes in interest rates. Interest rate risk arises when a bank's principal and interest cash have mismatched re-pricing dates. The amount at risk is a function of the magnitude and direction of interest rate changes and the size and maturity structure of the mismatch position.<sup>9</sup>

Foreign exchange risk or currency risk is the probability of loss to a bank because of fluctuating currency prices in international market. Foreign exchange risk arises when there are un-hedged currency mismatches in an institution's assets and liabilities and related cash flows (both on and off-balance sheet) which are not liable to a fixed exchange rate vis- à -vis the domestic currency in use in the country of the given institution.

<sup>&</sup>lt;sup>9</sup> Directive (89/ 646/ EEC).

Indeed, one must understand that risk management or the process of controlling the impacts of risk-related events is an integrated process. Hence, Asset and Liabilities Management cannot be conducted without treasury risks management.

#### SECTION 2: CASH MANAGEMENT STRATEGIES

From the Basel committee's view point, "weakness in the banking system of a country whether developing or developed, can threaten financial stability both within that country and internationally."<sup>10</sup> So, as expressed by PHILLIPS (op. cit) effective risk management of financial institutions is critical to:

- Promoting an efficient and effective system that adequately finances economic growth
- ✓ Ensuring that financial institutions do not become a source of systemic risk.

Consequently, the need of managers is reliable risk assessment tools to direct capital to activities with the best risk/ reward ratios. They need estimates of the size of potential losses to stay within limits imposed by readily available liquidity, by creditors, customers and regulators.

### I. Treasury risks management

The classic treasury risk management follows a multi-step process<sup>11</sup>:

- Risk Identification
- Risk assessment
- · Analysis, decision and action planning
- Managing operational risk
- Risk monitoring
- Reporting of risks

Many risk management tools are used in treasury.

<sup>&</sup>lt;sup>10</sup> Canada Deposit Insurance Corporation, (1993).

<sup>&</sup>lt;sup>11</sup> Basel Committee on banking supervision, (2000).

#### I.1 Risks assessment and management tools

Treasury risks management strategies includes steps towards liquidity, interest rate and currency risks measurement and management.

#### I.1.1 ALM as a tool of risks management

ALM (Asset and Liability Management) is a comprehensive and coordinated approach which allows a bank to manage the composition and adequacy of all of its assets and liabilities and off balance sheet<sup>12</sup>. This is a  $70_s$  technique consisting in establishing a mechanism to control value creation, banking risks management, and overall balance sheet and regulatory constraints compliance.

The ALM approach is essentially looking for the strategic decision-making. It can be outlined as follows:

### Chart 4: ALM APPROACH STATEMENTS.<sup>13</sup>



- Identification and measurement of risks affecting the bank;
- · Forecasts and assumptions of occurrence of these risks;
- The stress test of these risks' effects on the situation of the bank;

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• The decision to eliminate/ profit from the risks.

<sup>&</sup>lt;sup>12</sup> Henry JACOB et Antoine SARDI, Banking risks management, (2001).

<sup>&</sup>lt;sup>13</sup> Henry JACOB et Antoine SARDI, Banking risks management, (2001).

#### I.1.1.1 Liquidity risk management

There are two types of Liquidity problems in a bank: the illiquidity and excess liquidity. The liquidity position depends on some factors including: the ability to access the money market, the financial condition, the structure of the balance sheet and off balance sheet and the environment. The effects of liquidity risk to financial stability of a bank produce either implementation costs (in case of illiquidity) or execution costs (in case of excess liquidity).

Regarding liquidity as the key element in treasury risks management, and therefore the optimization of cash; the second chapter of the second section of this first part is devoted to liquidity risk management study.

#### I.1.1.2 Interest rate risk management

There are various sources of interest rate risk. This risk comes from the intermediation or market activities of a bank due to:

- Assets and liabilities mismatch
- Deformation of the yield curve
- Exercise of hide options
- Basis risk.

Chart 5: INTEREST RATE RISK PRESENTATION.



Determining the effects of interest rate risk depends on the accounting method adopted by the institution. The two main methods used are the historical cost (or accrual/ banking book) and the method of the market value (marked to market).

Thus, according to the method used, the effects of interest rate risk can be analyzed according to the interest margin (accrual book) or the total value of the bank (marked to market).

There are many attitudes towards interest rate risk. The first one consists in trying to predict changes in interest rates while keeping an exposure in order to benefit from a right anticipation in the rates changes (upside risk). The second attitude is a risk free position by an arbitrage of periodic unbalances of prices on different markets. The third response consists in taking an opposite position to offset the risk exposure of the first position.

Interest rate risk management strategies include other techniques providing a specific approach each. All of these techniques have strengths and weaknesses, so they are 'BLOTH more effective when used together:

- Gap analysis
- Duration analysis
- Simulation models

#### I.1.1.3 Interest gap analysis

A simple gap analysis measures the difference between the amount of interest-earning assets and interest-bearing liabilities both on and off-balance sheet, which re-price in a particular time period.

A negative or liability sensitive gap occurs when interest-hearing liabilities exceed interest-earning assets for a specific or cumulative maturity period. In this situation, a decrease in interest rates should improve the net interest rate spread in the short term as deposits are rolled over at lower rates before the corresponding assets. On the other hand an increase in interest rates lowers earnings by narrowing or eliminating the interest spread.

A positive or asset-sensitive gap occurs when interest-earning assets exceed interestbearing liabilities for a specific or cumulative maturity period. So, a decline in the interest rates should lower or eliminate the net interest spread in the short term as assets are rolled over before the corresponding liabilities. An increase in interest rates should increase the net interest spread.

#### I.1.1.4 Duration analysis

Duration is the time-weighted average maturity of the present value of cash flows from assets, liabilities and off-balance sheet items. It measures the relative sensitivity of the value of these instruments to changing rates (the average term to re-pricing) and therefore reflects how changes in interest rates will affect a bank's economic value, which is referring to the present value of equity. Duration indexes a bank's interest rate risk. This index represents the average term to maturity of the cash flows.

Nowadays, the concept of maturity is extensively used in many applications in the field of finance. MACAULEY first introduced it in 1938; then other authors like HICKS (1939-1946), SAMUELSON (1945) and REDINGTON (1952), followed.

Duration D(T) is calculated as follows:

$$D(T) = \sum_{i=1}^{T} \frac{i * Fi}{V(T) * (1+r)^i}$$

- i is the maturity of each future cash flow
- Fi is the cash flow at maturity i
- V(T) is the total present value of equity.

Duration as exposed is a useful tool to manage balance sheet exposure to interest rate variations.

Sensitivity and interest rate management:

The sensitivity S(T) of a financial instrument assesses the change of its present value due to a fluctuation of interest rate. Partial derivative of the present value with respect to market rate is approximately equal to duration multiplied by the discount factor.

$$S(T) = \frac{D(T)}{(1+r)}$$

According to this relation the higher the duration of a financial instrument the higher its sensitivity to the interest rate changes. Two financial instruments are equally sensitive to interest rate changes if they have the same duration and identical discounting rate.

Balance sheet sensitivity:

The sensitivity of a balance sheet is equal to the weighted average of sensitivities of the assets and liabilities that compose it. This property is valid only in the case of a parallel shift of interest rates, that is when all interest rates at a given time ti increase equally by  $\Delta r$ .

When the weighted average of sensitivities of assets and liabilities of a given balance sheet is positive, its present value is negatively exposed to interest rate increase. In this case, assets' average sensitivity is greater than liabilities (and reversely). The present net value of the balance sheet diminishes and shareholders grow poorer.

On the other hand, when the average sensitivity is negative, there is a risk of loss as a result of falling interest rates. Finally, when the sensitivity is equal to zero, the balance sheet is hedge against parallel shifts of interest rates.

Limitations in using duration analysis arise from the fact that matching the average term or duration of asset and liability cash flows does not eliminate the whole risk; for duration analysis should be used alongside with additional techniques of cash flow mismatch and cash flow dispersion.

#### I.1.1.5 Simulation models

There is a valuable complement to gap and duration analysis. Simulation models analyze interest rate risk in a dynamic context. They evaluate interest rate risk arising from both current and future business and provide ways to evaluate the effects of strategies to increase earnings or reduce the risk.

Simulation models are also useful tools for strategic planning. They participate to a bank effective integrate risk management out of some assumptions:

- ✓ Future level and directional changes of interest rates;
- The slope of the yield curve the relationship between the various indices used by the bank to price credits and deposits;
- Pricing strategies for assets and liabilities as they mature, growth, volume and mix of future business.

#### I.1.1.6 Foreign exchange risk management

The exploration of the impact of currency fluctuations on cash flows on assets and liabilities and on the real business of a firm requires one to answer some questions:

- What exchange risk does the firm face?
- What methods does it use to assess its currency exposure?
- Considering the kind of exposure and the ability of the firm to forecast currencies; what hedging strategy should the firm use?
- Seeing the various tools in foreign exchange market; which one of the following is adapted?

As revealed by studies "there is a considerable difference in current practice. This can be explained by the different franchises that coexist in the banking industry. Most banking institutions view activity in the market beyond their franchise, while others are active participants. The former will take virtually no principal risk, no forward position and have no expectations of trading volume. Within the latter group there is a clear distinction between those that restrict themselves to acting as agents for corporate/retail clients and those that have trading position."<sup>14</sup>

The currency risk management instruments available in the markets: Forwards, Futures, Swaps and Options.

One important task in foreign exchange trading is straightforward reporting. Currencies are kept in real time, with spot and forward position marked-to-market.

Foreign exchange risk management involves foreign currency liquidity management liquidity management in section two of this first (see part). It is noticeable that there is a fundamental difference between the uses of forward contracts and option in hedging. Forward contracts are designed to neutralize risk by fixing the price that the hedger will pay or receive for the underlying asset. Options by contrast provide insurance in offering the investor a way to protect himself against adverse price movements in the future still allowing them to benefit from favorable movements. Forward or future contracts involve an obligation to buy or sell an asset at a determined date in the future.

<sup>&</sup>lt;sup>14</sup> Sylvie de COUSSARGUES, « Gestion bancaire », Dunod, (2002).

#### I.1.2 Value At Risk (VaR): an integrated approach to risk management.

Value at risk is an attempt to provide a single number for senior management summarizing the total risk in a portfolio of financial assets. It has widely been used by corporate treasurers and fund managers as well as by financial institutions.

A value at risk calculation is aimed at making a statement of the form: "we are X percent sure that we will not lose more than V amount of money in the next N days."

- The variable V is the VaR
- X is the confidence level
- N is the time horizon.

The calculation of VaR becomes so simple when the following two assumptions are set:

1 – The change in the value of the portfolio ( $\Delta p$ ) is linearly dependent on the proportional changes in the market variable that is( $\Delta xi$ ).

2 – The  $\Delta xi's$  are normally distributed.

Simply defined, VaR is an estimate of maximum potential loss to be expected over a given period, a certain percentage of the time.<sup>15</sup> Endorsed by regulators such as Bank for International Settlements, the Federal Reserve, the office of the Comptroller of currency and the Securities Exchange Commission; VaR is the great equalizer. It translates the risk of any financial instrument into its potential loss under specific assumptions.

Tania Styblo BEDER argued in 1998 that VaR is only one aspect of risk management: "while firms typically select a single VaR measure, it is important to determine the degree to which the answer changes under different methods. Several important dimensions of VaR are now being researched and may provide insights into adjustments that may be practicable for various methods:

- the impact of time horizon,
- the impact of non linearity,
- the degree of price opacity (reverse engineering complexity, illiquid underlings, illiquid instruments, lack of historical data, etc),

<sup>&</sup>lt;sup>15</sup> A. M SANTOMERO, Commercial bank risk management, working paper N° 95- 11-C, (1999).

- the degree of residual error (differences between the actual and the mapped portfolio equivalents, etc),
- the impact of diversification (whether it magnifies, dampens, or does not affect difference across VaR calculations),
- the impact of sampling issues (sufficiency of sample period, size and breadth).

VaR, while an important advance in risk management, is only one aspect of an overall risk management program. Different VaR methodologies and selection of its key decision factors are appropriate for different firms and depend upon many factors. These include the types of exposures, other qualitative and quantitative risk management techniques employed and the firm risk appetite relative to its capital base. However combined with the appropriate additional risk management and measurement tools, VaR gets high marks."

## **I.2 Basel Committee on banking supervision principles**

Dealing with the issue of cash management, the Basle Committee reports are focused on managing interest rate risk and liquidity which it enacts the principles in its publication of June 2008.

Thus, the Basle Committee definition of interest rate risk provides a broader understanding of the concept:

"Interest rate risk is the exposure of a bank's financial condition to adverse movements in interest rates. Accepting this risk is a normal part of banking and can be an important source of profitability and shareholder value. However, excessive interest rate affects a bank's earnings by changing its net interest income and the level of other interest-sensitive income and operating expenses. Changes in interest rates also affect the underlying value of the bank's assets, liabilities and off-balance sheet instruments because the present value of future cash flow (and in some cases the cash flows themselves) changes when interest rates change. Accordingly, an effective risk management process that maintains interest rate risk within prudent levels is essential to the safety and soundness of banks." The Basel Committee states that a sound risk management of interest rates requires the application of four basic elements in the management of assets, liabilities and off balance sheet items:

- An appropriate monitoring by the Board of Directors and Executive Management;
- Adequate risk management policies and tools;
- Appropriate risk control limits;
- Comprehensive internal controls and independent audits.

Regarding liquidity risk, the principles are organized around eight themes:

- Develop a structure for liquidity management;
- Net resource needs measurement and control;
- Market access management;
- A backup plan preparedness;
- Currency Liquidity management;
- Develop an internal control for liquidity management;
- Publish information improving liquidity;
- The role of supervision to ensure compliance with the principles.

## II. Cash optimization in the scope of Multinational Groups strategies

Expansion, in recent years, of the "groups' phenomenon" with the fusion of various companies into large structured ones, was largely grounded in the need for better management of companies' husiness and all services. In this respect, a corporate consists of companies under the control of a single head group itself helonging to the group.<sup>16</sup>

In order to promote financial growth, groups have set up systems to optimize cash within the group's subsidiaries and facilitate their economic integration. Thanks to this type of organization, groups have achieved some financial independence, particularly banks; for they developed better financial strategies. Thus, the largest banks in the

<sup>&</sup>lt;sup>16</sup> Pierre GUEDES et Nicolas TRIOT, Université de Rennes, (1999).

world are groups of banking companies structured under banking groups that have more competitive advantages concerning finances.

#### **II.1** Companies' group treasury management

The pressure of international competition in the world of finance as a result of globalization has led to increased research in enterprise's profitability, hence the need for restructuring and innovating. This is reflected in the cash management through better control of availability in order to minimize short-term bank interest-generating services and maximize cash surplus for substantial interest-earning gains. The attempts to optimize cash flows finally led to group cash management approach that includes an additional level of information processing and decision-making to meet the objectives underlying the role of Head Treasurer: the optimization of the management structure on the one hand, and financial optimization by involving subsidiaries in a new concept of cash management on the other hand.

#### II.1.1 Optimizing the management structure

The system of centralized treasury management of a group contributes somehow to the structure optimization in two ways:

- The structure becomes simple thanks to computerization and electronic transmission. Indeed, the need for staff is not proportional to the number and complexity of the entities.
- ✓ The technical abilities of the staff increases. In fact, given the significant number of transactions of varying complexity, processing time and the highspeed evolution of technologies, the staff must necessarily be given more competences so that to cope with the system's efficiency.

#### **II.1.2** Financial optimization

The objective of financial optimization is based primarily on the effect of size, resources and the performance of all subsidiaries.

SIZE EFFECT: it brings an increase in the balance of power vis-à-vis competitors and the market. This facilitates the negotiation of banking conditions on transactions, financing, investments, financial instruments for risk hedging and the conditions proposed are surely hetter than those of isolated entities. In the same vein, the group size promotes market access for both the refinancing and investment activities.

RESOURCES OPTIMIZATION: It reduces financial losses. For, in the absence of group treasury, it is possible for a subsidiary to borrow at a relatively high cost and for another one to lend at a low rate, respectively the needs and cash surpluses on the market.

The introduction of cash pooling will allow the group to save on the amount offset, the two margins. It appears in fact that not only the group benefits but also the affiliates concerned. Similar reasoning is possible if the local currencies of the subsidiaries are different; with, in such a case, an additional concern due to currency risk.

The head treasury also contributes to the shortening of check cashing circuits that pass over the accounts of the subsidiary before being banked. This example illustrates two key roles of the head treasury namely the organization of circuits and systems for information and standards to subsidiaries.

Resource optimization can finally reduce the risk of foreign exchange and interest rates by a full or partial compensation of currency positions, which eliminates or reduces the risk of change for the group and the subsidiaries.

NEW CONCEPT OF "CASH MANAGEMENT": Concentrating information on liquidity and risk of the group at a single point gives a simple view that can be accessed faster. This facilitates many more simulations. And the group can therefore set and impose standards, procedures and controls that promote the optimization: that is to say the minimum loss and maximum gain.

## **II.2** Practices within multinational companies

The recent years have been favorable to the development of relations between subsidiaries in a group. Apart from benefiting group's advantages in addition to the remuneration of participation between them originally; these companies have diversified forms of financial relationship because of trade and mutual assistance they need. So they have set within the subsidiaries of the same company foreign currency funds transactions equivalent to those of money market.

It is therefore necessary for a relevant study of cash optimization ways of a subsidiary to examine the context in which it operates. This is about knowing the solutions implemented by multinational corporations to resolve financial problems posed by funds transactions.

There are three ways of cash management approach in a group: Netting or intra-group clearing, Cash pooling and other newly-developed financial techniques.

#### II.2.1 Netting

All multinational companies confronting unstable currency parity aim to off-set the currency risk so that to minimize their risk of commercial exchange. One of the principles within the groups is not to speculate on currencies. So, this implies that any opened foreign exchange position in commercial operations must be hedged accordingly to regulations. The implementation of an intra- group clearing system aims at facilitating the operations of subsidiaries. The Group exchange officer's role is to clear all future positions of subsidiaries on the basis of an ongoing multi grid developed on the day of operation. The modalities of the netting are:

a) The standard payment terms:

It allows you to centralize operations and reduce administrative costs of transfer and exchange commissions. In fact, transfers from each subsidiary are consolidated into one, to remove some of them when there is reciprocal billing between subsidiaries.

b) Standardization of billing:

It is to adopt a general rule of invoicing to clients within the group. Indeed, it avoids the problem of maximum change in the referring customer. Next to the group's business needs and currency of the subsidiaries, the billing may be directed to the local currency or currencies required.

c) The centralization of currency risk:

Each branch of a group of foreign exchange positions must be managed as they are sometimes conflicting. This management is done in order to know the position of overall net change of each currency. The centralizer may well need to know the group's net and get them and sell the excess net resources on behalf of subsidiaries. d) Foreign exchange trading:

It is made for transactions above a ceiling set as the group's role is to centralize the group's needs to take advantage of opportunities in the international money market. The netting has many advantages including: reducing the number of transactions within the group and lowering the amount of foreign currency traded on the money market. For a bank's subsidiary of a group, this system is of great interest if it is doing the entire bank's return for the group, taking advantage of the clearing and streamlining the system. For the group in general, this system of cash management reduces exposure to currency risk and optimizes financial costs.

#### **II.2.2** Cash pooling

Cash pooling is a method of international cash management that enable groups to 2UX benefit a subsidiary country's legal or tax advantages.

There are several approaches of cash pooling:

a) Omnium agreement:

"Omnium agreement is a contract by which companies are pooling their financial resources in order to leave to the needs of each. Liquidity is centralized at the holding company, which is mandated by the others to collect credits and settle the debts of those companies."<sup>17</sup> This makes it possible to make a trade group in terms of corporate taxes and VAT. However, this is only possible when the current regulations in the countries of the various subsidiaries are compatible

b) Holding Company:

<sup>&</sup>lt;sup>17</sup> 'International Cash flows management' Op Cit P.4
It is generally created in groups of non-financial institutions in order to optimize the management of cash value dates, including accelerating cash receipts and delaying disbursements. The choice of the financial status of the company depends on the direction the group intends to give its financial subsidiary. The company plays the role of a bank within the group (making loans and advances to other subsidiaries, receivables management, management of dividends and tax management of deficits...)

c) Charge back Company:

It is created within the groups to respond to potential exchange controls penalizing companies. It takes the form of an international trading company. If a subsidiary exports to a country with different regulations, the chargeback company pays the exporting affiliate within the time required by the regulations of its country then collects the money later from the recipient.

With these methods, the objective being tax optimization; groups should therefore choose the best possible structure. In general, it is necessary to relocate a substantial part of the benefit of the group to cash pooling with little or no imposition so that it is repatriated at the least tax cost; but only in the absence of tax haven regulation.

## **II.2.3** New financial techniques

Continuous changes of the international financial environment in recent years have forced multinationals to a refinement of techniques to optimize their cash. So, the followings have been implemented:

a) Façade loan:

This method reduces the tax and political risk. It allows a multinational to make deposits with a bank from an international subsidiary in a tax haven, which sum will then be paid to another subsidiary in a politically unstable country. This is done by considering it would be easier in case of shortage of foreign exchange in the unstable country, to authorize a loan repayment with a foreign bank that enables it to move its currency to the parent. It is a procedure that reduces the financial risk.

b) Leads and lags:

It allows comprehensive hedging of currency risk within the Group and so, this risk is no longer hedged country by country but for all subsidiaries of the group. The multinational, in addition to the foreign exchange market uses the term leads and lags for the early redemption of long-term debt and deposits in weak foreign currencies between affiliates. The principle of leads and lags is to increase assets in countries with strong currencies (assets from the parent and other subsidiaries) to obtain maximum added value. Conversely, the commitments in countries with weak currencies are increased to the maximum. This method of cash management shows that the parent company bas no direct effect on the casb if it is not in a country with strong or weak currency. The presentation of the principles of international cash management within the groups situates us in the specific context of the consideration of the benefits that a bank subsidiary could obtain from the parent company and other subsidiaries.

## **II.2.4 Management Information and reporting Systems**

When the organization is set, the flow of information and therefore communication between subsidiaries is the key to success for the group and its constituent banks. Information systems and the type of organization selected must be consistent. The plurality and diversity of stakeholders require the establishment of procedures so that the head treasurer receives the necessary information for effective management. In this respect the role of the back office is essential. This supposes the cash pooling to be upstream; in direct contact with the subsidiaries, to educate, train, monitor, consolidate and distribute various information received from them.

The aim of the involvement of subsidiaries is to make them report regularly on cash; this forces the subsidiary to be careful to their cash management. The subsidiaries of banking groups are required to make several reports weekly, monthly or annually. It is on all of these mentioned that a group determines the financial issues related to the implementation of cash pooling. If at a certain level of size, it is advantageous for a group company to increase the control over cash; so the role of head treasurer will become more important at the expense of the subsidiaries.

## CHAPTER TWO: BANK'S LIQUIDITY MANAGEMENT

Bank liquidity is crucial to the banking system. It is the foundation of customer confidence. Supervisors devote particular attention to this rule because the bank liquidity is the primary reason for bankruptcy.

Liquidity management is an on-going part of a bank's asset and liability management strategy. In the short run it focuses on meeting legal reserve requirements. It specifically involves monitoring net deposit outflows and inflows and deciding how to finance deficiencies or invest excess funds to earn some income.

## SECTION 1: BANK'S LIQUIDITY

Liquidity has been defined in various ways. Oxford advanced Learner's Dictionary defines liquidity as "The state of owning things of value that can be exchanged for cash." This is a general dictionary definition.

Timothy. W. KOCH and S. Scott MACDONALD define liquidity as "The speed and ease with which an asset can be converted to cash without loss of value and to certainty of the price received." in "Bank Management" (). They add that, "the ease with which any asset can be converted into a medium of exchange measures its liquidity." This brings the definition down to the financial industry.

But the definition posited into the banking industry is in Market Intelligence/ Business and Finance of Economic Intelligence 2002, is that liquidity means having sufficient funds to meet regulatory, contractual and relationships obligations when required and at a reasonable cost to the bank. It is having cash when needed.

# I. Sources of liquidity

KOCH and MACDONALD () distinguished between cash and liquid asset. According to them there are four types of cash assets:

- ✓ Vault cash;
- ✓ Demand deposit balances at Central Bank;
- ✓ Demand deposit at other financial Institutions;
- Cash items in the process of collection.

A liquid asset is one that can be easily converted into cash with minimum loss. It must therefore have a ready market and a reasonably stable price. Only excess cash is truly liquid. This includes excess balances held above legal reserve requirements. Cash assets are liquid assets only to the extent that a bank holds more than the minimum required. Whilst cash is the most liquid asset, it is not a viable long-term source of liquidity for a bank.

Liquid assets are generally considered to be cash and due from banks in excess of requirements, Central Bank hold and reverse repurchase agreements, in short-term Treasury and Agency Obligations, High quality Corporate Securities and some Government-guaranteed loans that can be readily sold. These assets are liquid because they can be quickly converted into immediately available funds with limited price depreciations. 

#### I.1 **Traditional sources**

The primary source of liquidity falls into two categories. The first one consist of assets in which funds are temporally invested with the assurance that they will either mature and be paid when liquidity is needed or will be readily saleable, without material loss, in advance of maturity.

The second category includes the various methods by which banks can borrow or otherwise obtain funds.

The traditional sources of a bank's liquidity include the following:

- Cash and due from banks in excess of required holds;
- Excess reserves which are usually sold to other banks for earnings;
- ✓ Short-term Government Securities including Treasury bills, Notes/ Bonds;

- ✓ Commercial paper, Bankers Acceptances and Negotiable Certificates of Deposits;
- Securities Purchased under Agreement to Repos. These are temporary purchase of government or other securities in which sellers agree to re-purchase the securities at fixed prices and at a set time in the future.

# I.2 Emerging sources

Most banks are using new methods to meet liquidity needs.

Long-term securities that have an option to sell at a set price in the future can be purchased. The price risk is removed rendering such long-term securities liquid. High liquid Corporate Securities that can be quickly converted into immediately available funds with limited price depreciation are also a source. Loans to well-known corporations or government-guaranteed loans that can be easily sold and or securitized when liquidity is needed are liquidity sources. Amortized loans may improve liquidity even though they are long term because the periodic payments increase Near-term Cash Flow. The bank can use money market obligations such as commercial papers or Notes to finance its liquidity needs.

## II. Functions of bank liquidity

The very factors affecting liquidity can be reversely impacted by liquidity problems. That is to say that when a bank has liquidity difficulties; this situation can have repercussions on its:

- ✓ Image
- ✓ Own cash flows
- ✓ Market cash flows
- ✓ Stability
- Legislation and regulations
- ✓ Politics

So, liquidity has various functions; still we consider the direct and indirect concern of liquidity functions. In this context, direct functions are those related to immediate

implications of liquidity issues. On the facing side, the indirect functions are those related to its indirect implications.

## **II.1 Direct functions**

A first function of liquidity is that it is a factor easing a bank's management, for sufficient liquidity helps in avoiding forced sale of the bank's assets. If a bank gets into terribly illiquid position, one of its options is to sell securities on a forced basis. Whereas selling a bank's securities or loans in a sharply falling market can lead to substantial losses. Moreover, enough liquidity avoids having a 'fire sale' which consists in selling assets at a discount to generate funds.

Last but not least, good liquidity position is a signal indicating to the wider market as a whole, that the bank is safe and well-managed. This is also a factor reducing the risk premium, for liquidity reflects the perceived credit worthiness of a bank. In fact, borrowing from the inter-bank market can be a big deal especially in a general liquidity crunch. Bank managers will seek to avoid borrowing wben rates are peaking. What's more, when a bank fails to borrow from the inter-bank market, it has to go to the Central Bank that may intervene directly in the bank's decision-making, for liquidity is a key element of banking supervision principles.

## **II.2 Indirect functions**

Another major function of liquidity is that it gives reassurance to the creditors that the bank will always be able to pay all its deposits and other borrowings back. As long as a bank is perceived as having adequate liquidity, lenders will not worry about investing in it.

However, when customers start doubting, even in the slightest degree, a bank's liquidity adequacy, they will hesitate investing. So that lack of trust prevents new deposits from coming deposits from coming.

In other terms, liquidity is a source of assurance in the relationship between the bank and its customers. Therefore, we can infer that liquidity is essential both to the strategic and marketing management of a bank.

## SECTION 2: LIQUIDITY MANAGEMENT STRATEGIES

A key activity of banks is the creation of liquidity. Many banks' activities therefore depend directly or indirectly on a bank's ability to provide liquidity to customers. Banks are thus vulnerable to liquidity problems. Virtually, every financial transaction or commitment has implications for a bank's liquidity. All banks receive inflows of cash and need to make cash payments. Since the timing of inflows and outflows will not automatically synchronize and amounts may differ, the bank must monitor and manage its liquidity position.

If this is done, and outflows exceed inflows, the bank will either borrow in which case it will pay interest and fees or postpone payment disrupting its business while losing reputation. Then, this can have far reaching effects on the bank. On the other hand inflows exceed outflows, resulting in a large idle cash balance, which brings almost no return. In this case, the bank is failing to make the best use of its resources.

Liquidity management is to ensure that the bank has adequate liquid resources to make cash payments when needed. If the bank holds a high level of liquid assets, it will be deemed inefficient. Seeing all this, banks need to be attentive to their liquidity management strategies and policies. No.

### I. Effective liquidity management tools

Managing liquidity involves the structuring of the interactive portfolios of assets and liabilities so that funds are available to meet the cash flow demands of both existing and potential depositors and loan customers. OGILVIE (), says liquidity management is "ensuring that the business has the liquid funds it needs, and investing surplus funds." It can then be inferred that liquidity management is the allocation of liquid resources to meet payment needs and various investments in order to maximize shareholders wealth. This approach fits into the financial management shareholder's value maximization theory.

# I.1 Liquidity ratios

Liquidity ratios denote the short-term financial position of a unit's treasury. The basic financial discipline for a unit is that it should be in a position to pay its short-term liabilities as they arise. A sound concern should also keep enough liquid funds to meet its short-term financial obligations and they should always be met out of realization of current assets.

Liquidity ratios examine the adequacy of funds on the basis of the relationship between current assets and current liabilities. If a firm has sufficient Net Working Capital (Current assets minus Current liabilities), it is deemed having enough liquidity. Current Ratio and the Acid Test are two common ratios intending to measure the liquidity of a company's assets relatively to its liabilities.

## I.1.1 Current Ratio

Current Ratio is the ratio between current assets and current liabilities

i) Current Assets Current Liabilities

This measures the short-term solvency of the company and its ability to meet current obligations or liabilities from current assets.

Otherwise, the ratio shows the margin the company has for its current assets to shrink in value before getting difficulties to meet current liabilities.

The main difference between current assets and non-current assets is reckoned with reference to time. Current assets are primarily those owned for a short period of time and converted into cash in one operating cycle of the business, usually within one year from the balance sheet date; whereas non-current assets are those expected to be owned for a longer period.

Generally, the current assets should be twice the amount of current liabilities in order to ensure solvency of the unit. So, the optimal ratio should be 2:1 as a general rule of thumb.

A low ratio is an indication that a firm may not be able to pay its obligations on time, particularly if conditions change causing a slowdown in cash collections. A high ratio at the opposite indicates an excessive amount of current assets and possibly a failure to properly utilize the resources. But the ideal ratio may sometimes be misleading in cases there is unnecessary accumulation of stocks or huge amount is blocked in sundry debtors. On the contrary, a company with quick realizable debtors or fast moving stocks may be financially sound even though its current ratio is less than 2:1.

This means current ratio cannot be looked at in isolation. The individual items that make up current assets in relation to current liabilities must be considered. Though a sound financial position from the view point of liquidity would require current assets to be definitely more than current liabilities so that not to hamper the day to day functioning of the unit.

## I.1.2 Acid Test or Quick Ratio

This measures the ability of a company to meet impending current obligations from liquid resources under the assumption that stocks may take some time before turning into cash at the right moment. So, stock is excluded. The acid test can estimate the firm's ability to pay off its short-term obligations without having to sell inventory (stock). The short-term borrowings are subtracted from current liabilities to assess capacity to repay trade credit.

Since banks contrary to manufacturing companies have no stocks, therefore the acid test using inventory is irrelevant to them. The second formula is then more meaningful because a bank holds realizable securities and receivables too in the form of debtors.

Acid test is based on the immediately arising liabilities and the highly liquid assets intended to be used to meet these obligations. A high quick ratio indicates that cash and/or Receivables are excessive and a possible sign of lax management. If the quick ratio is low but the current ratio is high, it may signify that a high level of inventory is being held. An ideal quick ratio is supposed to be 1:1. If it is above this level, that would show a sound liquidity position.

# I.2 Liquidity risk

Liquidity risk is the risk that the institution will have cash shortfall when needed to meet its obligations. It is the risk of not having funds available to payout commitments, withdrawals at any time at Normal Market interest rates.

The risk that the bank's obligations to repay liabilities or fund new loans exceed the bank's ability to raise fund from either the liquidation of assets or the acceptance of new deposits.

Liquidity risk arises because a bank does not exactly match the maturity of assets with the maturity of liabilities. This risk may also be affected by the depth of the market in which a bank has its assets and liabilities.

## II. Liquidity risk management

In fact, rarely will incoming cash flows from assets exactly balance the cash flowing out to cover liabilities. This engenders a maturity mismatch situation because banks hold an unusual high proportion of liabilities subject to deposits.

So, exposure of a bank to liquidity risk must be assessed. As the sources of this risk increase, the techniques of its evaluation increase too.

# **II.1** Liquidity risk assessment and management tools

#### **II.1.1** Liquidity risk assessment tools

There are various methods to assess liquidity risk. But the ones often used are the following:

## II.1.1.1 The method of Cash Flows Gaps

This method, used to determine liquidity risk, takes account of the repayment deadline. Deadlines are determined for short maturities to identify any potential problem. The net cash flows over a period are calculated as the difference between resources (collections) and debts (disbursements). These disbursements can be wages, interest expenses and operating resources, refunds expired, ... etc.

In addition, cash payments are essentially the expired obligations, new customer deposits, and products of interest...etc. So, the maturity ladder provides the calculation

of a cumulative net excess or deficit of funds at selected maturity dates. Two ways to present such a method also called 'Cash Flow Gap'.

## Chart 6: CASH FLOW GAP

	DAY ONE	DAY TWO	DAY THREE	
<ul> <li>-Interest income</li> <li>-Interest expense</li> <li>-/+Margin Calls</li> <li>-Operating expenses</li> <li>-Tax</li> <li>-∆ assets (normally maturing)</li> <li>-∆ deposits (normally maturing)</li> <li>-∆ deposits (new commitments)</li> <li>-∆ deposits (new flows)</li> <li>+Marketable assets</li> </ul>				
= Net Cash Flows				
= Cumulative Net Cash Flows				

SOURCE: DERMINE, (2001, P42).

# Chart 7: MATURITY DATES PROFILE AND GAPS CALCULATION:

PERIOD	LIABILITIES	ASSETS	GAPS
A week	4 800	4 200	600
8 days to 1 month	6 400	5 000	1 400
1 month to 3 months	8 600	5 400	3 200
3 months to 6 months	5 800	4 200	1 600
6 months to 1 year	2 000	2 400	-400
1 year to 2 years	1 000	3 400	-2 400
2 years to 5 years	1 400	2 900	-1 500
More than 5 years	1 500	4 000	-2 500
TOTAL	31 500	31 500	
			1

Source: De Coussargues (2002).

For each period, the gap corresponds to the level of liquidity risk exposure. In the case studied above, for the first week, the bank has a deadlock equivalent to 600 to be hedged. This hedging is the problem of raising resources to fix the situation.

The liquidity position of the bank must be evaluated equally in the normal exercise and in extreme cases (inability of debtors to repay, a panic ... and so on.

### II.1.1.2 Net Liquidity Measurement

Net liquidity can be measured through a comparison of liquid funds supplies to demands for liquidity.

The supplies of liquid funds come from:

- Incoming customers deposits;
- Revenues from the sale of non deposit services;
- Customer loan repayments;
- Sales of bank assets;
- Borrowings from money market.

Demands for bank's liquidity typically arise from:

- Customer deposit withdrawals;
- Credit requests from quality loan customers;
- Repayment of non deposit borrowings;
- Operating expenses and taxes incurred in services (produced and sold);
- Payment of stockholder cash dividends.

The	Net	Liquid	ity	Position	(N	LP)	is	then	(ROSE	1996,	Р	331):
NLP(L	Inc a)= dep (inf	ome oosit + lows)	Reve the s depo	enue fron sale of no sit servic	n n + es	Cus l repa	tomer oan ymen	+ ts	Sales of bank assets	+ f mor	rrow rom iey n	vings the narket

Deposit	Volume of	Repayment	Other	<b>Dividend</b> payments
-withdrawal-	- acceptable -	of bank -	operating –	to bank
(outflows)	loan request	borrowings	expenses	stockholder

When  $L_t < 0 \rightarrow$  demands for liquidity exceed supplies = liquidity deficit situation. In this case the bank needs to raise funds for refinancing.

When  $L_t > 0 \rightarrow$  supplies of liquidity exceed demands = liquidity surplus situation. In this case the bank needs to profitably invest the excess liquidity in order to cover future eventual demands.

#### **II.1.2** Liquidity risk management

Various liquidity management approaches are used in treasury to optimize the bank's cash.

#### II.1.2.1 Asset Conversion

As an old way to meet liquidity issue in banks, asset conversion or asset liquidity management calls for storing liquidity in the form of holdings of liquid asset especially in cash and marketable securities that can be sold later on to guarantee cash demands. Taking account of the characteristics of a liquid asset –

- A liquid asset must have a ready market so that it can be converted into cash without delay,
- It must have a reasonably stable price so that, no matter how quickly the asset must be sold and how large the sale is, the market is deep enough to absorb it without a significant decline in the price,
- ✓ It must be reversible with little risk of loss on the principal –

Assets that can be stored are:

- Treasury bills
- o Loans of bank reserves with short maturities (overnight)
- Purchase of liquid securities under a repurchase agreement
- Placing of correspondent deposits with other hanks
- Municipal bonds and notes
- Bankers' acceptances
- Commercial paper or short term debt
- o Eurocurrency loans.

The use of asset liquidity management is not without cost since investment in liquid asset brings low return. So, there are opportunity costs to storing liquidity in assets to be sold. Selling assets means the bank loses the future earnings these assets would have generated if not sold off or may lose capital if prices are falling shrinking by the way the bank's size.

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#### II.1.2.2 Liability Management:

Banks often raise funds by borrowing in the money market. As it calls for borrowing enough immediately spendable funds to address all anticipated liquidity demands; this strategy is also referred to as borrowed liquidity management or purchased liquidity.

The advantages of the liability side approach is that, unlike storing liquidity in assets, a bank can choose to borrow only when it actually need funds. It can hold the volume of its asset portfolio unchanged and avoid a decline in the total assets; for it uses borrowed funds. Some options for this strategy are:

- Selling liquid, low-risk securities under a repurchase agreement to banks and other institutions having temporary surpluses of funds
- Issuing large certificates of deposits to major corporations, governmental units and wealthy individuals for few days to several months periods of time (the interest rate being negotiated with customers)
- Issuing Eurocurrency deposits to multinational banks and other corporations at interest rates corresponding to these short-term international deposits (rates determined by demand and supply).
- Borrowing reserves from the discount window at the central bank under condition of collateral availability and a borrowing authorization (often for a few days).

Some problems underlying this strategy:

- Credit may not be always available when needed
- Borrowed funds interest rates volatility influences funds on the market
- The influence of reputation in the market place.

#### II.1.2.3 Asset & Liability Management

ALM is the structural process that enables banks to apprehend and control risks inherent in the daily pursuit of their activities. Within this management tool, parameters are set in order to control the impact of changes in the volume, mix, maturity and quality of assets and liabilities; due to the bank daily business trend. The objective is to:

 Determine the liquidity gap deduced from cash flow mismatches between uses and sources; ✓ Determine funding needs then timely provide the necessary funds in accordance with financing policy and risk parameters.

The ALM approach is a balanced liquidity management strategy where some of the expected demands for liquidity are stored in assets (marketable securities). While unexpected cash needs are met from near –term borrowings. Besides, liability is diversified to avoid reliance on one counter-party, one product or instrument type.

# **II.2** Basel committee principles for sound liquidity management

As the market turmoil that began in mid-2007 re-emphasized the importance of liquidity to the functioning of financial markets and the banking sector; liquidity, or rather unexpected shortage of liquidity in the financial system had proved to be a key factor in driving the turmoil. Hence, the following principles published in September 2008 in the framework of the Basel Committee.

#### Principle 1

A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.

#### > Principle 2

A bank should clearly articulate a liquidity risk tolerance that is appropriate for the business strategy of the organization and its role in the financial system.

#### > Principle 3

Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.

## Principle 4

A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.

#### > Principle 5

A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.

## > Principle 6

A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.

## > Principle 7

A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

## > Principle 8

A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.

#### > Principle 9

A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner.

#### Principle 10

A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies and positions and to develop effective contingency plans.

## > Principle 11

A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.

#### > Principle 12

A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding 30 Principles for Sound Liquidity Risk Management and Supervision sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.

#### > Principle 13

A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position.

#### PART TWO

# CASH OPTIMIZATION AND LIQUIDITY MANAGEMENT IN ECOBANK MALI

This part gives the approach of cash management in Ecobank Mali. So, it is a study of Ecobank Mali treasury practices in regard to cash optimization.

The basic objective is to analyze the methods and tools of Ecobank treasury and liquidity management system; so that to indicate its strengths and weaknesses and propose some solutions in the purpose of optimizing the bank's cash.

## CHAPTER I: ECOBANK MALI A SUBSIDIAIRY OF ETI

This section exposes Ecobank as a banking institution in two points. The first point is a presentation of the bank through an overview of the institution's structures. But the second point presents the operating system of the bank; namely the way Ecobank treasury and liquidity management works.

## SECTION 1: AN OVERVIEW OF ECOBANK

This chapter presents the historical perspectives and the organization of Ecobank, on the one hand. On the other hand, the treasury function is specified.

## I. History and organization

Until the 80's, the banking industry in West Africa was dominated by foreign banks and state-owned ones. There was virtually no commercial bank in West Africa owned by African privates controlling its management. Given this situation, the Federation of Chambers of Commerce of West Africa initiated a project to create a regional banking institution in the private sector in West Africa, and entrusted Ecopromotions S.A; created in this respect by August 1984 for the execution of this project.

## I.1 Group ETI

#### I.1.1 Historical perspectives

Finally established on October 3<sup>rd</sup> 1985, Ecobank Group became the first private regional banking institution comprising Ecobank Transnational Incorporated (ETI) as the parent company and many banking subsidiaries in the countries within the ECOWAS zone. The initial capital of USD 32 million was raised from 1,200 individuals and legal entities, from 14 countries of West Africa; with the Fund for Cooperation, Compensation and Development of ECOWAS being the majority shareholder.

#### I.1.2 Organizational structure

Today, the Ecobank Group assumes well a status of regional bank and now displays its new ambitions as the leading pan-African banking group. Ecobank has a wide network of more than 746 Agencies and Representative Offices in more than 30 countries in Western, Central, Eastern and Southern Africa as well as overseas. The total employment rises to nearly 10,000 personnel. The group consists of regions organized around the beadquarters and each containing a number of subsidiaries. There is one subsidiary by country, each with a set of agencies under the supervision of a lead agency.

## I.2 Malian affiliate

## I.2.1 History

Ecobank Mali (EML) is the malian subsidiary of Ecobank Group. It was inaugurated on November 26<sup>th</sup> 1998 as the seventh one. After an initially shy, Ecobank Mali is expanding regularly alongside with significant growth in the branch network and staff number, rising to 278 professionals in 2009. For instance, from only eight customers when starting its activities in Mali, Ecobank has more than 60,000 now. Similarly, from two agencies in 1998, the national network in Mali was 41 in late 2009.

## I.2.2 Organization

Ecobank Mali is organized accordingly to the group's recommended chart (Annexe 1). Thus, in 2010, the Managing Committee of the bank was effectively organized into departments round the Managing Director:

Retail Banking

This is the department in charge of relations with individuals, professionals and small businesses.

Wholesale Banking

This department manages the relationship with institutional clients and large companies

Treasury and Financial Institutions

This is the department responsible for the management of foreign exchange, assets & liabilities management and the relation with the correspondents.

Risk Management

It is the department in charge of credit administration, monitoring of guarantees and risk analysis.

Operations & Technologies

It is responsible for automating tasks and processing the operations of the bank.

Audit and Regulations

It is responsible for ensuring that the procedures and audits meet the standards.

Human Resources

This is the department in charge of recruitment and management of salaries and grades of staff.

Legal

This department manages the legal risk of banking.

Financial Control

It is responsible for reporting to ETI, the accounting for transactions under the WAMU bank accounting standards, the financial statements of the bank, management control and management of tax risks.

But we notice that a new organizational structure was released by the end of year 2010 and was then supposed to come into force in the last term of the year (Annexe 2).

### II. Treasury function in Ecobank

The treasury in Ecobank is structured and managed in accordance with the instructions in the "Treasury Textbook" which include three parts:

- 1- An overview of Ecobank Treasury and Financial Institutions requirements;
- 2- A summary of treasury tasks;
- 3- A guide for the preparation of cumulative output, liquidity stress test, annual capital and liquidity, and foreign currency walet sizing.

#### II.1 Group ETI

Ecobank Group treasury is organized to work in accordance with a concept which relies on management information and reporting system connecting the parent company to the subsidiaries. In fact, this information and reporting system combines the instructions imposed in the textbook and the procedures of reporting and controls to ensure an optimal treasury management as regards to the practices within the multinational banking groups.

#### **Chart 8: SMALL/MEDIUM SIZE TREASURY STRUCTURE**



Note: Applicable to all countries except Cameroon, CDI, Ghana, Kenya & Nigeria SOURCE: ECOBANK – The Pan African Bank

#### II.2 Malian affiliate

Ecobank Mali treasury is organized in the same way the Group treasury is. Therefore, this department is split into two Units: The ALM unit and the Sales unit or Treasury Sales Unit (TSU).

The ALM unit is managed by the treasurer himself as Head ALM. He collaborates with an ALM colleague. As for ALM, the TSU is made of a Head TSU and colleagues.

# SECTION 2: ECOBANK TREASURY AND LIQUIDITY MANAGEMENT SYSTEM

Ecobank Mali treasury and liquidity management system is based on tools and methods applied to all subsidiaries in accordance with the principles of the group as stated in the "Treasury Textbook".

# I Ecobank Mali treasury management practices

In Ecobank Mali, many tasks are part of treasury management.

# I.1 Assets & Liabilities Management (ALM) system

In Ecobank, ALCO (Assets & Liabilities Committee) is responsible for ALM management with respect to group standard operating practices. ALCO staff proceeds from the Managing Committee: Managing Director – Treasurer – Financial Controller – Retail and Wholesale Banking managers – Risk Manager – Cashier. ALCO provides guidance to operations performed by treasury. It is therefore the backbone of treasury activities.

According to the principles, at least three monthly ALCO meetings are required. These meetings are platforms of decisions concerning:

- An overview of local and international economic environment through an analysis of macroeconomic context and major currencies changes trends.
- An examination of assets allocation through an analysis of the asset pricing

   including rates, maturity and currency profile so that to determine the
   earning at risk and set appropriate corrective actions to be implemented
   with respect to profitability objectives.
- An examination of the cost structure through an analysis of the cost of funds – including rates, maturity and currency profile – so that to track the net margin of refinancing.
- Revue of the bank's largest customers list to detect risk of merger and find ways to avoid it.
- A review of risk parameters and net exposure to :
  - 1. Liquidity risk (through an analysis of liquidity ratios).

- Interest rate risk so that to evaluate the eventual impact of rates fluctuations.
- 3. Conformity to regulations in terms of adequacy standards.
- Capital analysis.

## I.2 Treasury tasks

Ecobank Mali treasury is put in charge of many tasks which; either the ALM unit or the TSU is entrusted to do. These tasks are carried out daily, weekly, monthly or annually.

- Daily tasks
  - In treasury, daily activities start by consulting the foreign exchange rates thanks to a THOMPSON-REUTERS' terminal which provides with a real time financial markets exchange rates tracking system. Then, the day sales rates are determined and forwarded to the other departments of the bank.
  - Determination of the daily cash position both in local and foreign currencies in full settlement of NOSTRO & VOSTRO.<sup>18</sup>
     Local currency cash position corresponds to cash in the Central Bank and the balance of Nostro accounts held in the affiliates' book. But for foreign currencies, the position is calculated for every single major currency: USD, EUR, GBP, and CHF.
  - ✓ Once the cash position is determined; then start the "calls" for deals which are foreign currency sales or transfers.
  - Trading blotter management: this consists in saving and processing deals daily.
  - ✓ Balance sheet management: it consist in dynamically tracking the balance sheet trends according to business evolution with the view to maximize return on assets, minimize the cost of funds and still meeting the capital adequacy requirements.

<sup>&</sup>lt;sup>18</sup> Designation of banks correspondence accounts.

In this purpose, the trend in non-earning assets, the profile of deposits and the capital accounts need to be closely controlled.

The maturity profile is also tracked through the cash flow gap determination which enables a control of liquidity position.

- Weekly tasks
  - Treasury has to weekly determine and report the net cash position, the cumulative cost of funds and the volume of deals performed during the week.
  - An ALCO meeting is hold to examine the trends of the business in relation to forecasts.
- Monthly tasks
  - Treasury works out a monthly ALCO statement that is reported to the Group Treasury which sets a close-up at the sight of all affiliates so that to enable a coordination of decision-making.
  - Affiliate's scorecard is stated and reported too. The scorecard contains the monthly net profit, transaction peaks, marketing activities and the FX position.
- Annual tasks
  - ✓ Three documents are worked out by treasury annually. They are: the "price risk limits" in which treasurers forecast the volume of business they plan to perform according to their clients.
  - The "liquidity and capital plan" which states the business plan for following years on the basis of the past one.
  - Affiliate's market business estimates for following years is stated. It also includes the affiliate's market share growing strategies.

## II Liquidity management system

The prudential framework of the West African Monetary Union attaches great importance to liquidity; the management of which is controlled by two instruments:

the liquidity ratio restricted to 75% - and the reserve requirement ratio for banks. In Ecobank, liquidity management is part of ALM.

## II.1 Liquidity risk assessment in Ecobank Mali

The assessment of liquidity risk is performed as to be examined in ALCO's meetings. The level of risk is inferred from gaps due to non-endorsement of assets and liabilities. So, some simulations are carried out by treasurer on the basis of assets and liabilities items' classification according to their deadlines. Determining a gap takes into account the contingent liabilities which could produce cash flows and new loans. A gap enables to deduce the excess resources to invest or the deficit to make up.

# II.2 Liquidity risk management in Ecobank Mali

The management of liquidity risk is based on the following principles which are part of the treasury textbook's instructions:

• The amount of NEA (Non Earning Assets) is limited to 10% of total assets.

• No funding should exceed 20% of total deposits.

 Large depositors (≥ XOF 500 million) should be identified and customer base expanded.

• Assess the following ratios and analyze the result of the subsidiary in relation to budget, previous years and competitors.

- L FP (Large Funds Providers) / TOTAL DEPOSITS	≤ 20%
- DEMAND DEPOSITS / TOTAL DEPOSITS	≥ 50%
- NIB (Non- Interest- Bearing) / TOTAL LOANS	$\geq 100\%$
- LOANS / DEPOSITS	≤ 66%
- SAVINGS / TOTAL DEPOSITS	≥10%
- TERM DEPOSITS / TOTAL DEPOSITS	≤ 40%

• Compliance with the ratios of the Central Bank which is the BCEAO in the case of Ecobank Mali.

## CHAPTER II: WAYS TO ECOBANK MALI CASH OPTIMIZATION

"The continuous viability of the institution depends on its ability to have an appropriate return on assets and capital. Good yields enable the bank to finance expansion, to remain competitive in the market, and to rebuild and / or increase its capital. In addition, profits represent the first line in defending the bank against capital crumbling, losses from credit, interest rate and operational risks."<sup>19</sup>

Thus, it is clear that the management of cash within banking groups is all the more demanding as the result of an affiliate is compared with others in relation to the group's expectations.

Hence, the purpose of this chapter is to make a diagnosis of cash management in Ecobank Mali, and propose ways to optimization.

## SECTION 1: FINDINGS ABOUT ECOBANK PRACTICES

Notwithstanding strengths and reputation<sup>20</sup>, Ecobank Mali needs improvements; for the cash management system still have weaknesses.

Hence the small contribution of Treasury to Ecobank's result as stated by the analysis of the net banking income in the Annual Report of 2010.

# Net Banking Income<sup>21</sup>

Net banking income generated by commercial activities in 2010 fiscal year, amounted to XOF 20 729 million, an increase of 21% compared to 2009 reflecting the level of fees performed. The growth of banking revenues was lead by commissions up to 40% - the share of net interest income on loans to the economy up to 37% - the return on foreign exchange transactions, 17% and return on securities amounting to 6%.

The pole of the Domestic Banking contributes up to 65% against 21% for the Corporates and only 14% for Treasury.

<sup>&</sup>lt;sup>19</sup> Ecobank Treasury Textbook (page 4).

<sup>&</sup>lt;sup>20</sup> Ecobank Annual Report (2009, page 6).

<sup>&</sup>lt;sup>21</sup> Ecobank Annual Report (2010, page 14).



# I Strengths of Ecobank management system

In light of the theoretical part, here is established a diagnosis that identifies the strengths of cash management in Ecobank.

# I.1 Strengths in treasury management

Ecobank Mali treasury management strengths proceed from five levels:

- The pertinence of ALM as a treasury management tool; for it enables the treasurer both to manage liquidity and address treasury risks.
- The management of ALM by ALCO which is a committee of the bank's managers contributes to the consistency in decision-making; because treasury should be seen in its interrelationship with other banking departments and banking activities.
- The reporting system contributes to the efficiency of the management by enabling the Group to control and possibly contribute to rectify inadequacy.
- The proficiency of Ecobank treasury personnel as revealed in the Treasury Textbook key principle: "The success of a Treasurer depends on his ability, as a mentor, to continue training his staff. This is the only way to improve the proficiency of staff and have a group of potential treasurers. Treasurers are

encouraged to organize at least one training session for their staff and / or other departments."<sup>22</sup>

 The communication of management and financial information to public also contributes to Ecobank Mali reputation in the market.

# I.2 Strengths in liquidity management

Ecobank Mali benefits two kinds of advantages in liquidity management:

- One of the strengths of this bank derives from its affiliation to Ecobank Group which has affiliates in all the countries of WAMU zone. Thus it can benefit the group's solidarity in term of cost of funds.
- Ecobank Mali also benefits the competitive advantages of the group's FX saleroom which offers low bid-ask spread to affiliates.

# II Weaknesses of Ecobank system

Though its performance, Ecobank Mali treasury management system still have limits.

# **II.1** Treasury management limits

- One of the weaknesses comes from the deficient information system including TEMENOS GLOBUS (software) operating system which causes some management shortcomings.
- Inadequacy of ALM operating tools in term of tasks automation. For instance, the parametrizing could be including an automatic processing for reports and statements for ALCO.

## **II.2** Liquidity management limits

 A major factor which is freezing Ecobank Mali liquidity management is the local inefficient money market.

<sup>&</sup>lt;sup>22</sup> Ecobank Treasury Textbook (page 1).

 Another limitation is related to incomplete ALM operating system; for tools like MCO (Maximum Cumulative Outflow) is missing. Though such a tool enables automated liquidity gaps assessment while tracing the level of risk.

# SECTION 2: RECOMMENDATIONS TO OPTIMIZE ECOBANK TREASURY MANAGEMENT

Given its ambitions, Ecobank is working hard to be a distinguished hank in the continent banking sector.

Hence, the relevance of the following recommendations intended to optimize the management system.

# I CASH OPTIMIZATION RECOMMENDATIONS

The following cash optimization recommendations address the management of both the bank as an institution and treasury as a department in which liquidity problem is specified.

# I.1 Recommendations addressing the ALCO and ALM

- A crucial recommendation for Ecobank is to address credit risk management within the framework of ALCO as a key experience; for the recent crisis has shown how credit risk is a critical point in managing banking business risks.
- Another recommendation is the acquisition of high-performance and reliable management information system. This tool must have an operating system enabling an automatic retrieval of data and statements required either for Alco meetings so that to minimize the dependence on one of the Alco staff member availability; or by the reporting system with the view to lighten the treasury tasks.

## I.2 Recommendations for a banking group strategy

An analysis of practices within group treasury of multinational companies, points out the irrelevance of most of them to Ecobank context except two strategies which are already implemented:

- ✓ Optimizing the management structure
- ✓ Management information and reporting systems.

Nevertheless, two other strategies need to be implemented:

- Foreign exchange trading
- Centralization of currency risk.

# II Recommendations for a proper Liquidity management

A proper liquidity management considerably increases treasury contribution to the profit of the bank. Thus, it is an obvious fact that treasury is supposed to make profit from profits. Therefore, investing excess liquidity becomes essential to treasury.

# **II.1** Recommendations addressing the ALM and ALCO

- Seeing the on-going exploration of ways to liquidity management; Ecobank should keep on innovating. Then this requires the implementation of new approaches to risk management like Value at Risk (VaR) and relevant simulation models.
- In view of its ambition to implement practices of international banking management standards; Ecobank should change its foreign currency risks management principle because it is controversial. In fact, instead of managing foreign currency risk, Ecobank Mali is shifting it to the clients; since forward trading is forbidden within the group despite it has a saleroom and professional traders at its disposal.
- As regards to interest rate, a proactive management of ALM including, MCO, gaps analysis, concepts of duration and balance sheet sensitivity; could be profitable to the bank.

## II.2 Recommendations for excess liquidity management.

At last, it is advisable that Ecobank Mali should be involved in accelerating the development of an efficient money market within the area in order to profitably invest its recurring liquidity surpluses held at the Central Bank. In this respect, Ecobank Group should bring some innovative strategies.

- Ecobank should stimulate governments to adopt public loan as the preferential policy in financing the Budgets. In this purpose, Ecobank Group could choose a group strategy to underbid in subscribing government loans and reduce the cost of funds.
- On the other hand, Ecobank could also perfect a strategy to assist large customers like mining companies and major international financial institutions to borrow in issuing loans. This could both become an alternative financing when large customers funding requirements exceed the bank regulatory limits and a means to develop an active market.

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#### CONCLUSION

In light of this study, the last world financial and economic crisis proved to be just the first test of the globalizing-system. In fact, the financial deregulations and banking products and services innovations era is completed; so, the crisis just raised the alarm for, it is high time to implement some adjusting reforms and appropriate risk management innovative techniques and tools in order to meet the consistency

requirements of a world-sophisticated financial and economic system.

These very requirements should include the optimization of the bank's cash which could be performed only under effective liquidity management.

In this respect, WAEMU banking sector entities, particularly Ecobank Mali should quickly update its banking management in order to cope with the "new system" working principles.

With regard to Ecobank's practices, especially the case study of treasury and liquidity management operating systems; it is obvious that this business is already on the way to compliance with the world's standards as the most advanced-managing pan African bank.

Notwithstanding strengths, performance records and reputation; Ecohank Mali treasury and liquidity management system still need improvements in relation to management information system and ALM operating system as the same. But above all this; the excess liquidity management is still the major challenge to the system. Hence, the relevance of recommendations intending to both enhance the effectiveness of ALCO and ALM management system; and stimulate the development of an efficient money market.

In any case, the recurring excess liquidity is common to banking institutions in the WAMU zone. Indeed, this is a major structural issue which requires the entities in the area to implement the innovative financial instruments which contributed to develop efficient money markets in the world developed financial markets.

As experienced elsewhere in the western countries, an efficient money market should include an active market so that excess liquidity can be easily invested and/ or converted into cash without delay. Then, the market should be deep enough to meet the criteria of price stability and reversibility so that to absorb any cash demand or sale without a significant decline in the value.

All things considered, the correlative implications between financial markets, investments and economic growth assume that financial markets development in WAEMU countries could possibly exercise an upward influence over the regional economy.

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- 2- ECOBANK MALI, Annual Report 2010
- 3- ECOBANK MALI, Financial Statements on December 31st 2010
- 4- ECOBANK MALI, ALCO meeting Report Statement on October 15th 2010
- 5- ECOBANK MALI, Blotter Statements on October 5th 2010
- 6- ECOBANK MALI, Rates Statements on September 26th 2010

#### > WEB SITES

http://www.bceao.int http://www.cabinet-okapi.com http://www.forma-conseil.com http://www.bis.org http://www.investopedia.com http://www.ecobank.com

# ANNEXES


## ANNEXE 01 : ORGANIGRAMME D'ECOBANK MALI

# The New Organisational Structure



Ecobank The Pan Airican Bank

# GROUP TREASURY STRUCTURE



Note: Affiliate Treasurers double hat as Head of ALM



# Small/Med. Size Treasury Structure



Note : Applicable to All Countries except Cameroon, CDI, Ghana, Kenya & Nigeria

the sea



### ECOBANK MALI

## TO : ALL'DEPARTMENTS RE : DAILY RATES

Date:	
Heure:	

20-oct-10 07:56:50

			Opérations d	le la client	èle				
		Tran	sferts	Change	Manuel	Autres o	pérations	NON CI	LIENIS
ENCIES / DE	Midrate	D. (A.L.O.	C.I. Que (.)	Buy	Sell		Sell	Buy	Sell
· · · · · · · · · · · · · · · · · · ·		Buy (Actiat)	Sen (vente)	(Achat)	(Vente)	(Alehyt)	(Vente)	(Achat)	(Vente)
USD	475	463	492	462	493	459	496	457	498
GBP	748	731	765	726	770	722	774	719	777
CAD	461	453	469	446	476	443	479	441	481
JPY	5,85	5,70	6,00	5,55	6,15	5,45	6,25	5,35	6,35
CHF	491	483	499	476	506	473	509	471	511
DKK	88,0	86,0	90,0	83,0	93,0	81,0	95,0	78,0	98,0
NOK	80,3	78,3	82,3	75,3	85,3	73,3	87,3	70,3	90,3
SEK	70,4	68,4	72,4	65,4	75,4	63,4	77.4	60,4	80,4
ZAR	68,3	66,3	72,3	63,3	73,3	61,3	75,3	58,3	78,3
AUD	465	457	475	450	480	447	483	445	485
AED	129,3	126,3	132,3	N/A	N/A	126,3	132,3	125,3	133,3
SAR	127	123	131	122	132	121	133	121 ~	133
GHS	331,08	311,08	351,08	307,08	355,08	303,08	359,08	301,08	361,08
NGN	3,12	2,99	3,25	2,96	3.28	2,94	3,30	2,92	3,32
GNF	0,067	0,062	0,072	0,061	0,073	0,060	0,074	0,059	0,075
EUR	655,957	655,957	655,957	655,957	655,957	655,957	655,957	655,957	655,957

VEUILLEZ VOUS REFERER PREALABLEMENT A LA TRESORERIE POUR TOUTE TRANSACTION SUPERIEURE A

\* drafts emis, les operations d'encaissement, achats et ventes de TC.

USD5.000 OU EOUIVALENT

Trésorerie

Contrôle Interne

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OBANK		MTD PROFIT		END DAY PROFIT	194 208 998	YE	AR TO DAY CLOS	ING PROFIT	3 806 550 526	
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1		TRFI TRSFT	655,957	655,9570		1 652 658,46				
2		WSB TRSFT	655,957	655,9570		-468 016,18				
3		TRFI TRSFT	465.000	471,0000	1 160,00					
4		RTB TRSFT	459,000	471,0000	615,00					
5		RTB TRSFT	459.000	471,0000	6 200,00				1	
6		TRFI TRSFT	459,000	471,0000	9,000,00					
7		RTB FX202666	459,000	471,0000	11 000.00					
8		WSB FX202667	459,000	471.0000	13 546,63					
9		RTB FX202668	459,000	471.0000	15 500.00					
10		TRFI FX202669	464,000	471.0000	27 400,00					
11		TRFI FX202670	459,000	471,0000	32 089,50					
12		WSB FX202671	463,000	471,0000	145 000,00					
13 1		RTB FX202672	482,000	471.0000	- 250 000,00					
14		TRFI TRSFT	655,957	055,9570		59 968.00				
15		WSB TRSFT	655,957	655,9570		3 600 000,00				
16		WSB TRSFT	655,957	655,9570		-50 703,77				
17		RTB TRSFT	655,957	655,9570		-30 489,80				
18		RTB TRSFT	454,000	462,0000						
19		RTB TRSFT	459.000	471.0000	6 500,00					
20 ,	· ·	WSB FX202673	462,000	471.0000	20 985.00					
21		WSB TRSFT	655,957	655,9570		-473 937,00				
22		RTB TRSFT	454,000	462,0000						
23		RTB FX202674	463,000	471,0000	37 985,00					
.24 1		WSB FX202675	467,000	471,0000	899 975,00					
25		TRFI FX202676	459.000	471,0000	10 506.92					
26 /		TRFI FX202681	126,000	126,0000						
21	,	TRFI FX202681	471,000	471,0000	• 55 000,00					
28		RTB TRSFT	655,957	655,9570		-156 780,00				
29	4 J	RTB TRSFT	655,957	655,9570		-250 000,00				
30		RTB TRSFT	655,957	655,9570		-230 000,00				
31		RTB TRSFT	655,957	655,9570		-40 000,00				
32		RTB TRSFT	655,957	655,9570		-189 000,00				
34	•	RTB FX202688	480,000	471.0000	- 100 000,00					
• 35		RTB FX202677	131,000	126,0000						
36		RTB FX202689	480,000	471,0000	• 100 000,00					
37	19 C	RTB FX202682	484,000	471,0000	- 135 000,00					
38		RTB TRSFT	488,000	471.0000	- 6 696,00					
39		RTB TRSFT	488,000	471,0000	- 4 734,45					
40		RTB FX202679	490,000	471,0000	- 10 400,00					
41		RTB FX202678	485,000	471,0000	- 60 000,00					
42		RTB FX202683	484,000	471,0000	- 101 149,00					
43 1		RTB FX202684	484,000	471,0000	• 20 000,00					

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-92

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1 120 1 059 1 276 1 309 1 445

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-1 644 -1 071 -1 81

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Versement

Flux nets en millions de XOF Crédit Dépôts el Compens

OPS DE LA CLIENTELE (4)

1 76×

0 - 4356

#### ALCO Meeting

Date d'arrêté: 31 Août 2010

#### ORDRE DU JOUR

- Compte rendu de la précédente réunion
- Environnement économique et monétaire
- Evolution de la liquidité
- Prévisions d'emplois à court, moyen et long terme, et contrainte du ratio de transformation et de liquidité
- Divers

#### **ECONOMIE - MARCHE MONETAIRE**

- Une belle campagne agricole en perspective (selon le Ministre de l'Agriculture)
- Préparation du cinquantenaire de l'indépendance du Mali
- Scandale autour du détournement au nord Mali de plusieurs milliards d'aide du Fonds Mondial (Nations Unies)

Taux de pension :	4,25 % (baisse d' 1/2 pt le	16/06/2009)
Taux d'escompte :	6,25 % (hausse d'1/2 pt le	16/06/2009)

Le cœfficient des réserves obligatoires applicables aux banques de la place est de 7,0 %

EONIA (O/N):	0,3700%	Tx directeur BCE :	1 % (le 07/05/2009)
LIBOR (USD 1 mois) :	0,2580 %	Tx directeur FED :	0,25 % (le 16/12/2008)

Taux moyens observés du 25 au 31 Août 2010 sur le marché interbancaire de l'UEMOA, pour un volume d'opérations de XOF 36 615 millions.

1 jour	1 semaine	2 semaines	1 mois	3 mois	6 mois	12 mois
7.00%	3,80%	5,37%	4,03%	4.27%	-	- 1
50M	10 900	3 505	14 660	7 500	-	- `

Dans le cadre de la régulation de l'économie par l'open-market, la BCEAO continue d'injecter de la liquidité à taux variable au taux minimum de soumission de 3,2500%. Injection du 30 août 2010 : (Montant : 110 Mrds, Montant retenu : 110 Mrds)

#### ENVIRONNEMENT REGLEMENTAIRE



Réserves à constituer (16/08 – 1	5/09) :	14.626
Avoirs incoriques constitues sul Au 15/09/2010	la periode.	35.145
Excès:	*	20.498

#### **PROJECTIONS DE LIQUIDITE (ET RESERVES OBLIGATOIRES)**

Projections de la Réserve Obligatoire (en millions de XOF)



Projections au 15/10/2010 (moyer	nne):	40.743
Réserves à constituer du 16/09 au	15/10:	14.647
Excès au 15/10/2010	:	26.096

OBSERV.

ok

ok

Cet excès sera résorbé en partie par les placements interbancaires, les crédits et les acquisitions de titres sur le marché monétaire (sous réserve des approbations du Groupe).

#### Conformité avec le dispositif prudentiel

# Ratios au 31 juillet 2010 :RATIOSNORMESREALISATIONSFonds Propres sur Risques8% min14,64%Coefficient de Liquidité75% min98,77%Ress. stables /Emplois à MLT75% min127,3%

			1
Ress. stables /Emplois à MLT	75% min	127,3%	ratio trimestriel
Ratio de structure du portefeuille	60% min	20,5%	
Les coefficients de division des risques * Total des engagements atteignant individuellement	Par bénéficiaire max. 75% FPE	28,36 % 31 375 millions < à 8x FPE : 110 712	Ok Ok
25% des FPE * Engagements nets qui individuellement dépassent 75% des FPE	< max. 8xFPE	millions Néant	ok

#### POSITIONNEMENT

Les données communiquées par l'APBF au 30/06/2010 (Cf Tableau synthétisé ci-dessous) se concentrent sur les opérations à la clientèle.

Après analyse de la position concurrentielle d'EML il ressort :

(chiffres au 30-06-2010 en Milos)							
	ECOBANK	8DM	BIM	BNDA	BOA	AUTRES BANQUES	TOTAL
Ressources							
NIB (y compris dépôt de garantie)	109 403,00	214 712,00	72 831,00	94 490,00	69 625,00	212 864,00	773 925,1
DAT .	25 502,00	37 168,00	26 703,00	3 055,00	32 650,00	76 550,00	201 628,
Compte D'épargne	25 033,00	29 592,00	61 179,00	24 258,00	29 172,00	15 219,00	184 453,
Emplois							
Portefeuille d'Effets Commerciaux	6 271,00	3 684,00	13 661,00	1 622,00	3 020,00	23 361,00	51 619,
Autre Crédits à CT	66 822,00	64 661,00	21 907,00	33 082,00	22 114,00	78 749,00	287 335,
Comptes Ordinaires Débiteurs	7 194,00	19 715,00	14 678,00	15 046,00	14 384,00	47 637,00	118 654,
Crédits à MT	25 688,00	37 189,00	40 039,00	44 065,00	34 983,00	48 353,00	230 317,
Crédits à LT	1 571,00	275,00	1 269,00	877,00	7 347,00	4 665,00	16 004,
Créances en souffrance	10 714,00	18 746,00	20 479,00	3 958,00	11 258,00	24 941,00	90 096,
Créance en Souffr/ Total Bilan	4,63%	5,48%	10,34%	2,01%	6,65%		
Total Bilan	231 258,00	342 247,00	198 016,00	196 848,00	169 249,00	426 288,00	1 563 906,

#### Ressources :

#### -NIB :

EML, avec XOF 109,4 Mrds de ressources mobilisées, occupe le second rang derrière la BDM (XOF214,7 Mrds). La BNDA est 3ème avec XOF94,5 Mrds.

#### -IB :

<u>DAT</u> (4<sup>ème</sup> rang) : XOF25, 5 Mrds mobilisés par EML (soit 12,6% des DAT de la place : fruit de notre politique de réduction des charges d'intérêt) contre XOF37 Mrds pour la BDM, XOF32,7 pour la BOA et XOF26,7 pour la BIM.

<u>SA</u> (4<sup>ème</sup> rang) XOF25,5 Mrds mobilisés par EML (soit 13,6%) contre XOF61,2 Mrds pour la BIM, XOF29,6 Mrds pour la BDM et XOF29,2 Mrds pour la BOA.

#### Emplois :

-Crédits à CT :

EML se positionne à la première place des 5 premières banques du Mali (à savoir BDM, EML, BIM, BOA et BNDA) avec près de XOF67 Mrds de crédits octroyés toutefois si ces crédits ne sont pas renouvelés EML s'exposera à un gap de maturité sur cette période par conséquent une réduction considérable des revenus. La BDM se positionne 2<sup>nd</sup> suivie de loin par la BNDA avec XOF33 Mrds soit la moitié du volume d'EML. Les 8 banques restantes représentent un total de XOF78 Mrds.

#### -Crédits à MT :

EML lest 5<sup>ème</sup> avec XOF25,7 Mrds (soit 11% de part de marché) dernière la BNDA, la BIM, la BDM et la BOA. Des efforts sont à consentir en vue d'octroyer davantage de CMT.

#### -Crédits à LT :

Les crédits à LT ne représentent que 2% du total des crédits octroyés au Mali. EML se classe :2<sup>ème</sup> avec 1,57'1 Mrds contre XOF7,3 pour la 1<sup>ère</sup> banque (BOA).

#### -Créancies en souffrance :

La part des créances en souffrances rapporté au total bilan est de 6% pour la place. Pour EML, le niveau est de 4,63% contre 10,34% pour la BIM, 1788% pour la BRS et moins de 1% pour la BICIM. En volume, le portefeuille de créances en souffrance d'EML est le 3<sup>ème</sup> plus important.

#### -Total Bilan :

EML se classe 2<sup>ème</sup> avec XOF231 Mrds derrière la BDM, la BIM et la BNDA (respectivement XOF342Mds, XOF198Mds et XOF 196Mds).

#### Plan d'action :

*Crédits à CT*: EML concentre 23,3% du total des crédits à CT octroyés sur la place ; toutefois, XOF 220 Mrds de marge peuvent être récupérés auprès des banques de la place en poursuivant les efforts marketing en direction de la clientèle cible (salariés, PME PMI) et en améliorant le processus d'octroi de crédit.

*Crédit à MLT*: Sur la base du ratio de couverture, EML est à 93 % et dispose d'une marge importante aussi bien pour accroître ses possibilités sur le marché en termes d'octroi de crédits à MLT (volume mobilisé par EML de 27 Mrds contre 246 Mrds sur la place soit une part de marché de 11%) que pour accroître son niveau de ressources stables à des taux raisonnables (25Mds mobilisés par EML contre XOF200 de volume DAT sur la place).

Impayé et Créances en Souffrance : Des efforts sont à consentir en vue de réduire le niveau des impayés (près de 3 fois plus que la BNDA).

De façon générale, la croissance du niveau des emplois doit être accompagnée par une croissance moins que proportionnelle du niveau des ressources non rémunérée.

Nous devons poursuivre nos efforts de mobilisation des NIB, trouver encore des emplois clientèle afin de résorber le coût de nos ressources et nos fonds oisifs et être de plus en plus rentable en respectant la norme min. de 5% de taux d'intermédiation sur le total bilan.

	0	Emplois	
	Réalisations 31-août-2010	Budget	Ecarts
Cash and balances with Central Banks	46 705 790 197	29 153 054 485	17 552 735 712
Treasury bills and other eligible bills	15 650 046 669	30 884 018 000	- 15 213 971 331
Trading securities			
Placements, losas & advances to banks	20 632 215 722	24 005 224 000	- 3 373 008 278
Loans & advances to cestomers	127 709 658 515	127 207 521 493	502 137 022
Investment securities: held to maturity			+
Other Arsets	15 584 152 439	14 187 931 106	1 395 221 333
TOTAL ASSETS	226 281 863 542	225 417 749 085	884 114 458

#### VOLUMES (par rapport aux prévisions budgétaires)

#### Emplois :

Nous notons :

- Ecart négatif de 15 Mrds sur les titres : ceci s'explique notamment par une forte concentration du portefeuille sur le secteur Etat couplé au faible niveau des émissions hors-Etat.
- Un gap important sur les emplois de la clientèle 9 Mrds.

		Ressources	
	Réalisations août-10	Budget	Ecarts
Deposits from banks	7 405 148 582	1 000 000 000	6 405 148 582
CU - MB deposits	121 751 460 924	125 996 348 148	- 4 244 887 224
CU - term deposits	42 598 074 753	41 454 565 105	1 143 509 648
CU-savings account	25 426 619 332	16 187 443 024	9 239 176 308
Other ST borrowings	• 1	-	B
Other liabilities	12 496 537 971	24 641 504 352	- 12 144 966 381
Shareholders funds	16 604 022 000	16 137 888 456	466 133 544
	Tak sately port in many protection and a second		-
	226 281 883 542	225 417 749 085	864 114 457

#### **Ressources** :

Nous notons : ~

 Gap de 4,2 Mrds sur les dépôts non rémunérés par rapport au budget combiné à un excès de 10 Mrds sur les dépôts rémunérés (SA + DAT).

Les travaux en cours doivent se poursuivre : réduction des taux des DAT à renouveler ; payement des intérêts sur les SA une fois par an.

#### MARGE D'INTERMEDIATION

	31-2001-201	0	31-juil-2010	) ]	30-Juin-2010	)
Emplois Interbk	82 988 052 586	1,36%	88 194 973 330	1.5%	87 677 722 866	1.7%
Emplois Clientèle	127 709 858 515	8,11%	121 459 637 052	8,1%	126 258 172 281	8,1%
Ress. Interbk	7 405 148 582	0,00%	474 465 000	0.0%	4 304 496 471	1,1%
Ress. Clientèle	193 995 273 685	1.40%	193 759 779 096	1.5%	200 462 379 641	1.5%
Marge d'intermédiation						
ops clientèle		6.72%		6.6%		6,5%
total bilan		3,88%		3.6%		3,7%

Afin d'améliorer la marge d'intermédiation du bilan, nos recommandations portent sur : Ressource :

- La poursuite des actions mobilisatrices de ressources surtout les comptes courants non rémunérés,
- Poursuivre la réduction des taux de rémunération des DAT (revoir à la baisse la grille de rémunération des DAT)

Emplois :

- Rechercher activement les crédits à taux élevés
- Saisir les opportunités de placements sur le marché monétaire

	31-août-20	010	31-juil-2010		30-juin-2010	D		31-aoūt-2	010	31-juil-201	0	30-juin-201	0
	Volume	Taux	Volume	laux	Volume	Taux		Volume	laux	Volume	laux	Volume	9400
Caisse	12 974 755 552	0,00%	12 711 357 783	0,00%	12 466 489 000	0,00%			······································				
Comptes Corresp.	37 308 871 227	0,05%	45 539 409 048	0.11%	39 045 162 599	0.00%	Comptes Corresp.	7 405 148 562	0.00%	474 466 000	0.00%	4 304 496 471	1,13%
BCEAO	33 731 034 645	0,00%	39 123 409 048	0.00%	28 390 544 599	0.00%	Filiales (IB)		0.00%		5.00%		4,00%
Corresp. UEMOA		0,00%	-	0.00%		0.00%	Filiales (NIB)	1 771 167 339	0.00%	439 000 000	0.00%	1 129 445 249	0,00%
Hors UEMOA	1 043 712 912	0,07%	5 211 000 000	1.00%	1 917 129 000	0.03%	Autres	5 633 981 223	0.00%	35 466 000	0,00%	3 175 051 222	0,00%
Filiales (NIB)	2 184 063 673	0,00%	1 205 000 000	0,00%	8 737 489 000	0,00%							
Filiales (IB)	350 059 997	5,00%		5,00%		5,00%			1				
Placements	17 054 379 140	1,57%	14 089 939 830	2,70%	17 811 804 598	2,51%	Emprunt Interb.		0,00%	-	0,00%		3,91%
Filiales	2 666 666 667	3,50%	2 666 666 667	3,50%	2 666 666 667	3,50%	Filiales (XOF)	-	0.00%		0,00%	· ·	3,91%
Cptes Gagés	10 097 179 148	0.15%	7 132 739 838	1,80%	10 854 604 606	1,80%	Filiales (EUR)	•	0,00%	-	0.00%	-	0.00%
Autres	4 290 533 325	3,71%	4 290 533 325	3,71%	4 290 533 325	3,71%	Autr. Banq.		0,00%	-	0,00%		0,00%
			K A				Cash Coll		0,00%		0,00%	-	0,00%
Titres	15 650 046 669	5,36%	15 854 266 669	5,37%	18 354 266 669	5,55%						1	
Autres Titres	10		01										
Clientèle	127 709 658 515	8.11%	121 459 637 052	8.06%	126 258 172 281	8.06%	Clienfèle	193 995 273 685	1.40%	193 759 779 096	1.48%	200 462 379 641	1,54%
Cptes Débiteurs	6 646 628 828	10.34%	7 805 425 125	11.1%	7 169 691 759	8.6%	Comptes courants	121 988 536 474	0.07%	119 525 914 382	0.06%	126 865 801 320	0,47%
Escomptes	6 243 072 091	7.49%	7 659 758 578	7.33%	6 271 285 117	7.45%	NIB	117 769 417 798	0.00%	117 190 441 139	0.00%	119 879 458 332	0.00%
Prêts	106 053 279 482	8.55%	95 614 453 349	8.8%	103 104 503 941	8.7%	IB	4 219 118 676	2.11%	2 335 473 243	2.92%	6 986 342 988	3.06%
Cr. en souffrance	5 997 275 802	0.00%	10 380 000 000	0.00%	6 838 207 733	0.00%	Cash Coll	3 982 043 126	0.00%	3 272 269 400	0.00%	4 330 428 321	0.00%
Impavés Technique	2 769 402 312	5.00%	10 500 000 000	0.00%	2 784 303 731	5.00%	Engrune	25 426 619 332	2 60%	25 047 778 333	2.62%	25 033 997 000	2.60%
inipayer recinique	2 /0/ 102 512	5,007		0,007	2104 303 131	5,0070	DAT	42 598 074 753	4 60%	45 913 816 981	4 67%	44 232 153 000	4 77%
							DAI	12 330 014 133	4,0070	10 710 010 701	.,		
Autres Actifs	15 584 152 439	0,00%	21 422 617 534	0,00%	17 035 847 853	0,00%	Autres Ress.	24 881 441 295	0,00%	36 842 982 820	0,00%	26 204 866 888	0,00%
and a second sec							dont Fds Pr.	16 604 022 000		13 839 000 000		15 652 999 000	
	226 281 863 542	5,08%	231 077 227 916	4,79%	230 971 743 000	5,04%		726 281 863 542	1,20%	231 077 227 916	1,24%		1,39%
Total Funds	210 697 711 103	5,45%	209 654 610 382	5,28%	213 935 895 147	5,44%	Total Funds	201 400 422 247	1,34%	194 234 245 096	1,48%	179 448 931 456	1,56%
Marge Nelle Bilan		3,88%		3,6%		3,8%	FCY deposits	262 210 679	0,00%	282 210 679	0,00%	360 719 763	0,00%
Net margin on funds		4,11%		3,8%		4.0%	ley Cost of funds	201 118 211 568	1,35%	193 952 034 417	1,48%	179 088 211 693	1,56%
RATIOS	Nonne	31/08/2010	) Norme	****		******							
Loans / Deposit	< 75 %	65,83%	< 66 %	57,3%		58,2%	NIB / Total Dep	(66,6% min)	62.8%		62,2%		59,6%
Demand Dep./ Total Deposit	> 50 %	75,99%	> 50 %	74,6%		75,8%	Intra-Aff Net Exp.	3 429 622 998	3,2%	3 432 666 667	2,7%	5 479 484 900	1,7%
NIB/ Total Loans	> 100 %	95%	> 100 %	99%	1	98%	IAE /Total ress	(15% max)	1.7%		1,8%		3%
								(1010					0.0.00
NEA / Total Assets	< 10 %	23,71%	< 10 %	30%	-	22%	Time Dep./ Total Dep	(40% Max)	22,0%		1 23,7%		25,3%
							SA/Total Deposits	(10% Max.)	13,1%		12,9%	r	12,5%

- Loans / Deposits : Disposons d'une marge confortable sur le ratio Loan / Deposits.

Poursuite de l'octroi de crédits sains ; relancer les filiales en dépassement sur le ratio afin de racheter certaines de leurs créances.

- NEA/Total Assets : Nous devons poursuivre les actions en vue de placer nos excès sur les crédits, l'interbancaire, saisir les opportunités d'achat de titres et réduire le niveau des créances en souffrance.

Contrôle Interne

#### Profil d'échéance

		1 MTH		3 MTH		6 MTH		1 YR		2 YRS		3 YRS		5 YRS	+		Non interest s	ensitive
	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux	Volume	Taux
Colori	13.051 565 563	0.000/																
Calsse Cotes Corresp	12 9/4 /55 552	0.05%	1															
Placements		0102.70						1	6 437 147 909	3,50%			520 052 083	5,25%				0,00%
Titres			4 250 000 000	4,54%	1 483 333 334	6,76%	304 210 000	6,07%	3 434 527 146	5,82%	1 684 523 809	6,12%	1 493 452 380	6,33%	3 000 000 000	4,33%		0,00%
								-										
Charth	13 (01 303 103	0.508/	22 200 102 111		24 000 440 073	0 789/	11 016 177 100		12 204 229 042	7.010	( 107 ( 22 267		12 472 350 237	0 198/	2 330 020 013	0.00*/		
Cotes Déhiteurs	6 646 628 828	9,78%	33 398 192 441	8,19%	. 40 990 509 074	8,1370	14 035 211 209	1,4576	12 390 228 903	1,93%	0 48/ 023 35/	3,4470	12 4/3 239 237	3,1079	2 329 929 032	0,0076		
Escomptes	2 016 944 621	7.82%	3 785 804 048	7.26%	175 647 332	7.86%	78 830 859	7.89%	123 896 830	8.00%	61 948 401	8.00%						
Prêts	4 937 729 953	9,83%	26 842 986 081	8,65%	26 814 921 740	8.75%	13 956 446 350	7,45%	12 272 332 133	7.93%	6 425 674 956	9.45%	12 473 259 237	9.18%	2 329 929 032	6.24%		
Cr. Impayées tech			2 769 402 312	5,00%														
Cr. en souffrance			5 997 275 802	0.00%			1											1
Valeurs non Imp.	1					` ( <b>\</b>												
1. 1		-															15 594 152 430	0.00%
Autres Actus																	10 004 102 407	0,00 %
	63 884 930 181	2,11%	37 648 192 441	7,78%	28 473 902 406	8,65%	14 339 487 209	7,42%	22 267 904 018	6,32%	8 172 147 166	8,76%	14 486 763 700	8,74%	5 329 929 032	0.00%	-	#DIV/0!
			r															
Castas Courses	7 405 149 643	0.009/						51										
Emocunt Interb	7 403 146 302	0.00%						1										
camprant interes		0,0070																
Charalle	101 913 000 (31	0.678/	1 107 500 000	3 (08)	1 802 (95 37)	4 130/	1 220 013 980	1038	14 003 748 075	7 (18)	13 330 600 038				1 601 600 000	0.005/		
Cuentele	151 842 989 021	0,03%	1 107 500 000	3,40%	1 809 485 274	4,43%	1 320 833 860	4,03%	14 881 /45 8/5	3,01%	13 229 609 035	2.19%	8 201 810 000	2,2876	1 001 500 000	0,00%	1	
Comptes courants	121 988 536 474	0,11%																1
Cash Coll	3 982 043 126	0.00%																
DAT	445 700 680	2,00%	1 107 500 000	3 4084	1 900 495 774	4 4 394	1 220 933 990	4.0396	14 991 745 975	36184	13 220 600 035	\$ 78%	8 201 610 000	5 58%	1.601.500.000	5.05%		
DAT	445 750 005	6,3376	1 101 500 000	5,4076	1007405-114	4,4576	1 520 055 000	4,0570	14 001 145 015	310111	15 60, 055		0.000 000	0,0070	1001200000	2,0274		1
Autres Ress.						and an and the second of				<u></u>							24 881 441 295	0,00%
	159 248 138 183	0.51%	1 107 500 000	3.40%	1 809 485 274	4.43%	1 320 833 880	4.03%	14 881 745 875	3.61%	13 229 609 035	5.28%	8 201 610 000	5.58%	1 601 500 000	0.00%	24 881 441 295	0,00%
												_						
Impasse	- 95 363 208 002		36 540 692 441		26 664 417 132		13 018 653 329		7 386 158 143		- 5 057 461 869		6 285 153 700		3 728 429 032		- 24 881 441 295	
Coef	0,04166666	7	0,16666666	7	0,37	5	0.7	5	1.	5	2,	5		4	7.	5		
											1 10 212 201 201				1 42 0/2 212 210			
impasse pondéree	- 3973467000		6 090 115 407		9 999 156 425		9 103 989 997		11 0/9 237 215		- 12 043 054 073		1 23 140 014 800		1 2/ 903 217 740		· · · ·	
Variation de taux		-1,0%		-1,0%		-1.0%		-1.0%		-1,0%		-1,0%		-1,0%		-1.0%		-1,0%
Péruliat	10 734 670	_	60.001.164		00 001 644		07 610 000		110 202 322		126 436 647		251 406 149		270 632 177			
rveaultat	- 39 /34 0/0		00 901 154		99 991 504		97 039 900		110 /92 3/2		120 430 347		231 400 148		2/9 022 1//		· · · ·	

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1	UT DELOUIONO -					
	Cilent	QAT	COC	Total Depôts	*	
3	l.	12 430 565 537.00	2 269 270 591	1= 119 839 428	2,9434	
2		7 500 000 000.00	1 251 599 311	6 751 589 011	5,3274	
	5	4 000 000 000.09	52 503 259	2 042 503 289	2,47%	
4			3 523 505 759	3 533 508 768	2,15%	
		tan a water and a state of the second state of	3 105 059 148	3 108 059 146	1,82%	
			2 222 270 551	2 205 275 891	1 3961	
-		the second property in the second second second	2 104 796 258	2 104 754 259	1,28%	
- 9	1		2 329 530 682	2 029 530 882	1.23%	
10	7	2 250 060 000,00	- 137	1 989 999 563	1.2295	
11			1 905 188 079	1 508 188 076	1,15%	
12			1 559 398 320	1 559 395 325	0, 2531	
13	1		1 548 047 150	1 548 047 189	0,9434	
14			1 492 510 253	1 492 810 253	0,71%	
10		1 100 000 000 00	385 207 344	1 970 564 130	0 394	
17	2	1 202 000 200.00	t19 483 CE2	1 319 483 062	0.50%	
18			1 251 599 311	1 251 599 311	0.76%	
19		1	1 250 343 922	1 255 343 922	0,76%	
20			1 182 466 675	1 162 485 875	0,72%	
21		1 000 000 000.00	82 355 594	1 092 555 094	0,66%	
22			1 086 977 292	1 266 277 202	0.85%	
23		1	1 0+2 022 680	1 042 022 660	0.63%	
24		1 000 000 000,03	1 784 855	1000 794 519	0,53%	
20			532 215 152	132 948 152	5516	
27	-		864 603 293	564 683 683 1	0,43%	
28		-	707 245 855	737 245 655	0,45%	
25			717 652 812	717 852 513	0,00%	
30			855 202 826	855 202 528	3,43%	
31	1	ringer - Black Shanned Street, Shared	442 820 629	643 658 648	0,39%	
32			633 406 317	633 406 317	0,53%	
33		468 000 605.08	227 995 403	627 956 403	3,33751	
35		8	602 284 271	202 284 271	3.37%	
36		T	591 582 844	581 862 844	0.56%	
37			586 127 033	3E6 127 C39	0,35%	
38			583 638 253	583 638 259	0, 35%	
39			562 782 885	582 762 685	0, 3534	
40			561 688 347	581 668 347	0,3535	
12			254 582 356	574 552 34R	3 36%	
43		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	527 718 351	537 716 381	0.33%	
44		560 600 080.08	17 429 718	517 422 714	3,31%	
25		500 000 000.63	\$ 107 1 <del>3</del> E	504 107 166	3,51%	
46			473 272 343	478 272 313	0,23%	
47			453 823 357	462 623 397	3,28%	
42			457 250 258	457 290 276	0.28%	
50		400 000 000,00	413 492 545	193 692 505	0.25%	
51		1	425 688 196	126 865 186	3,25%	
52			423 091 591	422 091 591	0,25%	~
53	£	200 060 080.00	195 586 375	385 596 375	3,24%	
54			365 557 864	538 557 EAX	0,34M	
55			375 627 922	375 827 922	3,73%	
36			374 476 255	374 275 235	5,23%	$\frown$
50			372 854 000	372 654 000	3,23%	
59		200 900 008.00	89 400 631	372 502 621	0,22%	
60			387 782 448	367 782 405	3.22%	
61			361 480 418	361 480 415	0.225	
62			358 122 584	356 122 864	0.22%	
63			355 144 692	355 144 492	0,2294	
EA		250 060 660,08	102 498 437	352 495 407	5.21%	
60		765 560 245,54	336 526 860	235 544 982	0.20%	
67			331 183 836	331 163 630	0,20%	
68		205 565 565.85	125 232 856	125 222 568	0,20%	
69	1		324 442 255	325 442 255	0,20%	
70		175 000 000.05	148 203 472	323 582 479	3,20%	
71			322 481 920	322 451 920	0,20%	
72			312 263 557	313 553 857	0,1879	
13		315 535 535 64	010 590 500	315 925 000	0.195	
73		The set and set	363 826 128	308 528 105	2.19%	
76			305 583 072	205 593 072	5,29%	
77			302 343 894	302 943 584	0,18%	
75			300 924 789	200 921 789	0,245	
79	A service of the serv	200 205 020.05	ii	184 583 811 227 00	u, Janj	
	505- DA1	Anter states of the state of the state		and the second s		

Le plus gros déposant ACCT « opération mines » représente près de 10.86% du total des dépôts clientèle ce qui inférieur à la norme Groupe (20 % max).

ank Customer	CCY	Volume		Profit	NEX Profit	% cumul.	Segment
1 .	USD'	1 629 950.00	incoming	18 359 400	5.46%	5,48%	Corporate
2 1	USD	1 510 335,25	Incoming	30 208 705	1,98%	14,43%	Corporate
3	USD	523 000.00	incoming	4 984 000	148%	15,92%	Corporate
4	USD	499 374.00	incoming	9 999 480	297%	18,89%	Corporate
5	USD	448 637.00	incoming	8 972 740	2.87%	21.55%	Domestic
6 1	USD	300 000.00	Incoming	6 000 000	1,78%	23.34%	Tresorerie
7	USD	200 000.00	Incoming	2 800 000	1.83%	24,17%	Tresorerie
8	USD	189 137,00	Incoming	3 783 340	1,12%	25,29%	Tresorerie
9	USD	186 912,26	Incoming	3 738 245	1,11%	26,41%	Corporate
0	USD	184 878.00	interning	2 958 048	9.88%	27.28%	Tresorerle
1	USD	181 530.00	incoming	2 542 820	0.75%	28,04%	Tresorarie
2	USD	162 3 18,00	Incoming	2 272 452	2,58%	28,72%	Tresorerie
3	USD	160 200.00	Incoming	3 204 000	0.95%	29.67%	Tresorerie
4 ,	USD	150 000.00	incoming	3 000 000	0.89%	30.56%	Corporate
5	USD	125 475.00	incoming	2 509 500	0.75%	31,31%	Corporate
6	USD	120 000,00	Incoming	2 160 000	1.64%	31,85%	Tresorerie
7.	USD	118 596.00	Incoming	2 371 920	1,70%	32,65%	Tresoraria
8	USD	106 669.00	Incoming	2 133 380	1.83%	33,29%	Tresorerie
9	USD	104 149.75	incoming	1 666 396	1.50%	33.78%	Tresorerie
0	USD	90 900,00	incoming	540 000	0.15%	33,94%	Tresorerie
1	USD	79 970.00	incoming	1 599 400	8,48%	34,42%	Trescrerie
2	USD	77 690.00	incoming	1 653 800	8.46%	34,88%	Tresoreris
3	USD	75 000.00	Incoming	1 500 000	1.45%	35.33%	Trascrarie
4	USD	65 569,00	incomina	917 966	0.27%	35,60%	Tresorerie
5	USD	60 000,00	incoming	1 200 000	1,36%	35,96%	Trescrerie
6	USD	59 950,00	inceming	899 250	0.27%	36,22%	Corporate
7 :	USO	59 025.98	incoming	685 389	9.25%	35.49%	Tresorerie
8	USD	56 301.18	Incoming	1 125 024	8.33%	36,82%	Corporate
9	USD	54 399.00	Incomino	1087 980	0.32%	37,14%	Corporate
0	USD	49 984.00	Incoming	999 660	0.30%	37.44%	Corporate
Incoming Transfers (usd equivalent)	luso	7 629 780.40	1	125 971 915	17.44%		

A Realiston

Budger Gap

Part Corporate Bank dans Total Inflows	USD	4 846 280,69	Incoming	76910264	22,86%
Part Domestic Bank dans Total Inflows	USD	448 637,00	incoming	8 972 740	2,67%
Part Tresorerie Bank dans Total Inflows	USD	2 334 862,71	incoming	40 088 911	11.91%

ETSIE"	USD I	2 500 585.49	cutacine !	15 003 519	4.45%	4.45%	Domestic
4 P	USD	1 556 883.00	outoolno	9 401 298	2.79%	7.25%	Domestic
	USD	1 550 000.00	i pniostuo	23 250 000	6.91%	14,16%	Corporate
	USD	1 261 868 23	culacing	14 100 551	4,13%	18.35%	Corporate
1	USD	1 169 153.21	outgoing	14 029 839	4.17%	22.52%	Corporate
	USO	838 354.00	eutooing	10 060 368	2.99%	25.51%	Corporate
	USD	833 177 74	outoping	6 565 422	1.98%	27.50%	Domestic
	USD	805 300 00	cutacina	4 830 000	1.44%	28.93%	Domestic
	USD	580 933 85	outgoine	7 490 272	2.23%	31.15%	Comorata
	USD	603735.34	outgoing	9 056 030	2.69%	34.07%	Corporate
-	USD	491 830.00	autacina	3 934 640	1.1755	35.24%	Domestic
	USD	410 535 00	culceine	5 159 525	1.83%	37.07%	Corporate
	USD	361245.00	eutoaine	5 418 675	1.61%	38.69%	Domestic
	1030	32373087	l outcolno !	4 856 098	1.44%	40.12%	Corporate
	USD	244 694 29	outcoing	2 691 637	0.80%	40.92%	Corporate
- Contraction of the second se	USD	225 000 00	cutooino	3 375 000	1.00%	41.93%	Domestic
1	USD	200 000 00	eutoeine	3 000 000	0.83%	42.82%	Domestic
and the second s	USD	162 046 30	entechno	1 620 463	0.48%	43.30%	Corporate
	USD	151 680.00	culocina	2 275 200	0.68%	43,97%	Domestic
	USD	150 000 00	Culocina	2 250 000	0.675	44.64%	Domestic
	USD	124 453 33	cutoaing	1 866 800	0.55%	45,20%	Comorate
	USD	110 582 25	outoolno	1 658 734	0.49%	45.60%	Corporate
	IUSD	101445.00	poinchio	1 521 690	0.45%	45,14%	Domestic
	USD	72 000 00	cuincing	1 080 000	0.32%	46.46%	Domestic
	USD	63 459.51	culocing	951 893	0.28%	46.75%	Tresorerie
1	USO	62 472 00	cutaolna	937 080	0.28%	47.03%	Domestic
-	USD	56 500.00	outacina	847 500	0,25%	47.26%	Domestic
-	USD	54 000.00	cutooino	378 000	0,11%	47,39%	Domestic
-	TUSD	50 030.00	outgoing	750 450	0.22%	47.61%	Domestic
	USD	49234.88	I outgoing	738 523	0.22%	31.39%	Corporate
Outgoing Transfers (usd equivalent)	USD	15 294 750,30		160 199 206	47,61%	]	
Part Corporate Bank dans Total Outflows	USD	7 549 440,56	outgoing	97 578 839,79	29,00%	]	
Part Domestic Bank dans Total Outflows	USD	7 661 850,23	outgoing	61 668 474	18,33%		
Part Tresprerie Bank dans Total Outflows	USD	63 459.51	outgoing	951 893	0.28%		
						-	
AUTRES BANQUES	USD		outpoing	-	0.00%	0.00%	
Trapofore (used ornivalent)	USD		cutostuo		0.00%	1. 1.	
STIDILACES (USU CULIVACIN)							-
Lindiane a last education			A COLUMN AND A COLUMN A				
Divers (autres clients, changes manuels,					44 745	100.000	1
Divers (autres clients, changes manuels, gain sur position de change et régulatisatio	ins)			46 136 928	13,71%	100,00%	1
Divers (autres clients, changes manuels, gain sur position de change et régulatisatio Gain de change	ns)			46 136 928 336 457 601	13,71%	100,00%	]

327 376 000 9 081 601



Direction Nationale pour le Mali Agence Principale de Bamako Service des Etudes et des Statistiques

Bamako, le 02 septembre 2010

COURS INDICATIFS DES DEVISES AU 31 AOUT 2010

	Cours de l'euro	Cours en CFA
EURO (EURO)	1	655,9570
DOLLAR US (US)	1,2680	517,3162
YEN JAPONAIS (JPY)	107,0700	6,1264
COURONNE DANOISE (DKK)	7,4448	88,1094
COURONNE SUEDOISE (SEK)	9,3890	69,8644
LIVRE STERLING (GBP)	0,8248	795,2922
COURONNE NORVÉGIENNE (NOK)	8,0245	81,7443
COURONNE TCHÈQUE (CZK)	24,8500	26,3967
COURONNE ESTONIENNE (EEK)	15,6466	41,9233
FORINT HONGROIS (HUF)	287,6800	2,2802
ZLOTY POLONAIS (PLN)	4,0135	163,4376
FRANC SUISSE(CHF)	1,2935	507,1179
DOLLAR CANADIEN (CAD)	1,3489	486,2903
DOLLAR AUSTRALIEN (AUD)	1,4304	4(58,5829
DOLLAR NÉO ZELANDAIS (NZD)	1,8187	360.6736
RAND SUD AFRICAIN (ZAR)	9,4044	69,7500
D.T.S CONTRE FRANC CFA AU 31 AOUT 2010	1,1899	780,6820



Direction Nationale pour le Mali Agence Principale de Bamako Service des Etablissements de Crédit et de Microfinance

#### OPERATIONS EFFECTUEES SUR LE MARCHE INTERBANCAIRE DE L'UMOA PERIODE DU 08 AU 14 SEPTEMBRE 2010

						0												(en millions de F.CFA)		
	UN JOUR		UNE SEM	AINE	DEUX SEM	AINES	7	N MOIS	DEUX	MOIS	TROI	SMOIS	SIX	MOIS	NEU	FMOIS	DOUZ	E MOIS	то	TAL
	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts	Prêts	Emprunts
BENIN	c			D G	1 000	o o	3 000			0 0		0 0		0 0		0 0		o o	4 000	
BURKINA	c			D I		0 0	- c	0 0	5	0 0		0 0	-	0 0		o 0		0 0	O	
COTE D'IVOIRE	C	0 0	100	0 10	30	5 3 305	1 000	4 000		0 0		0 0		0 0		o 0		0 0	1 405	7 40
GUINEE BISSAU	c			p (		0 0	c	0	10	0 0		0 0		o o		0 0		0 0	C	
MALI	(		, i	0	2 00	0 0	c	0		0 0		0 0		0 0		0 0		0 0	2 000	
NIGER	C		0	0 0	D I	0 0		0	*	0 0		0 0		0 0		0 0		0 0	c	
SENEGAL	3 000	3 000	1 50	0 1 50	1 00	0 1 000	5 000	5 000		0 0	$\hat{\mathbf{O}}$	0 0		0 0		0 0		0 0	10 500	10 50
тодо	v		Þ		D	0.0		0 0		0 0		0 0		o 0		0 0		0 0		
					1							-								-
UMOA	3 000	3 000	1 60	0 160	4 30	5 4 305	9 000	9 000		0 (		0 0		0 0		00		0 0	17 905	5 17 90
Taux moyen pondéré	3,259	*	3,	48%	5,	25%	5.	,19%											4,	73%
Taux minimum	3,259	%	3,	25%	4,	50%	4	,50%											3,	25%
Taux maximum	3,259	%	7,	00%	7,	00%	6	,25%										_	7,	00%



**Direction Nationale pour le Mali** 

BCEA

OF L'AFRIQUE DE L'OUES

#### AVIS D'APPEL D'OFFRES

#### ADJUDICATION D'INJECTION DE LIQUIDITES N° 40-2010 DU 04 OCTOBRE 2010 A UNE SEMAINE

#### MM 812

Dans le cadre de la régulation de la liquidité de l'économie par l'open-market, la Banque Centrale des Etats de l'Afrique de l'Ouest porte à la connaissance du public, qu'elle organise, à l'attention des intervenants du marché monétaire de l'UMOA, un appel d'offres pour l'injection de liquidités aux caractéristiques suivantes :

> 110,0 milliards de FCFA 50,0 millions de FCFA

à taux variables

11 octobre 2010 17 octobre 2010

- Nature de l'adjudication
- Montant
- Valeur nominale unitaire

3,2500% Taux minimum de soumission :

- Date de valeur
- échéance
- Durée

- 07 jours
- Date et heure limites de dépôt des soumissions

: mardi 05 octobre 2010 à 16h00 mn Temps Universel. The Car

Bamako, le 04/10/2010

P/Le Directeur National Le Directeur de l'Agence Principale Charge de l'intérim

94, Avenue Moussa TRAVELE BP 206 - Bamako - Mali

BCEAO

Département des Opérations Direction des Opérations de Marché

#### MARCHE MONETAIRE DE L'UMOA RESULTAT GLOBAL DE L'ADJUDICATION A UNE SEMAINE PAR PAYS

NATURE DE L'ADJUDICATION ADJUDICATION N° VALEUR MONTANT MIS EN ADJUDICATION TAUX MARGINAL TAUX MINIMUM PROPOSE NOMBRE DE PARTICIPANTS

Injection de liquidités
38/2010
27/09/2010
110 000
3,3800%
3,3800%
13

DUREE : 7 jours TAUX MOYEN PONDERE : TAUX MAXIMUM PROPOSE :

NOMBRE DE SOUMISSIONS :

: 20/09/10

DU

3,4137% 3,5000% 15

PAYS	Montant proposé (en millions de FCFA)	Montant retenu (en millions de FCFA)
BENIN	39 400	39 400
BURKINA	40 000	40 000
COTE D'IVOIRE	2 219	2 219
GUINEE-BISSAU	0	0
MALI	6 200	6 200
NIGER	0	0
SENEGAL	19 574	19 574
TOGO	0	0
SIEGE	0	0
the second of the		

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