



# **Managing Economic Capital for the Retail assets of the BU NL portfolio**

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## TABLE OF CONTENTS

<b>PREFACE</b> .....	<b>4</b>
<b>1. INTRODUCTION</b> .....	<b>5</b>
<b>2. PROBLEM DESCRIPTION</b> .....	<b>6</b>
2.1 Research Goals .....	6
2.2 Research Questions .....	6
<b>3. CREDIT RISK MEASUREMENT</b> .....	<b>7</b>
3.1 Introduction .....	7
3.2 Credit Risk Measurement under Basel II accord .....	7
3.3 ABN AMRO credit risk methodology for the BU NL retail portfolio .....	8
3.4 Credit Risk of a retail loan .....	10
3.4.1 Probability of Default .....	10
3.4.2 Exposure at Default .....	11
3.4.3 Loss Given Default .....	11
3.4.4 Example of a PD pooling .....	11
<b>4. ECONOMIC CAPITAL</b> .....	<b>13</b>
4.1 Introduction .....	13
4.2 Credit EC methodology .....	14
4.3 EC Allocation .....	15
4.4 Risk Measures .....	15
<b>5. CLASSIFICATION OF AN EXTERNAL RETAIL PORTFOLIO</b> .....	<b>17</b>
5.1 Introduction .....	17
5.2 Building a classification model .....	17
5.2.1 Problem Definition .....	18
5.2.2 Acquisition of Domain Knowledge .....	18
5.2.3 Data Preparation .....	19
5.2.4 Data analysis & Model building .....	21
5.3 Conclusion .....	26
<b>6. BU NL RETAIL PORTFOLIO ANALYSES</b> .....	<b>28</b>
<b>7. CONCLUSIONS</b> .....	<b>30</b>
<b>8. RECOMMENDATIONS</b> .....	<b>31</b>
<b>ABBREVIATIONS</b> .....	<b>32</b>
<b>REFERENCES</b> .....	<b>33</b>
<b>APPENDICES</b> .....	<b>35</b>

## 1. INTRODUCTION

Banks need to retain capital as a buffer for unexpected losses on their credit portfolio. The level of capital that needs to be retained is determined by the central banks. In 2007 a new capital accord, the Basel II accord, will become operative. This accord will be the successor of the Basel I accord. In 2010 the Basel I accord will be fully replaced by the Basel II accord. Both accords are named after the place where the Bank for International Settlements is settled, namely Basel Switzerland. The BIS gives recommendations concerning banks and other financial institutes on how to manage capital. The influence and reputation of The Basel Committee is of such nature that its recommendations are considered world wide as “best practice”.

How much capital ABN AMRO needs to retain is determined by an important internal measure: Economic Capital (EC). EC is a comprehensive risk measure and takes into account the diversification benefits that ABN AMRO has. EC is calculated for various types of risks such as credit risk, operational risk and business risk. Credit risk is thereby the most important risk type, because it contributes to 70% of the banks total amount of EC. Within the ABN AMRO the amount of EC for credit risk is calculated by using internal credit risk models.

Managing EC is one of the key responsibilities of the department Capital & Liquidity Management Group (CLMG) Region NL. The department is continually developing new initiatives for optimizing the balance sheet in terms of EC and regulatory requirements. One of the initiatives of CLMG is investigating the opportunity of optimizing in terms of EC the BU NL credit portfolio by investing in external loan portfolios. On behalf of CLMG, research in optimizing the BU NL credit portfolio and building a model to evaluate opportunities for investments in external loan portfolios has become the subject of this graduation project.

The structure of the report is as follows. First a description of ABN AMRO’s credit risk measurement is given and then the concept of Economic Capital is broadly discussed (Chapter 3 and Chapter 4). In Chapter 5 a classification model is described to evaluate the risk of an external loan. Then the BU NL retail portfolio is analyzed with use of an internal simulation model. The results of these simulations are discussed in chapter 6. In the final two chapters the conclusions of the research will be given and some recommendations for further research will be made.

## 2. PROBLEM DESCRIPTION

At ABN AMRO a distinction is made in the BU NL credit portfolio between Program Lending (PL) and Non-Program Lending (NPL). PL comprises all standard lending products. SMEs that are not individually rated and private individuals fall in the PL segment, while corporate and individually rated SMEs fall in the NPL segment. Currently the department CLMG has done numerous transactions in both parts of the credit portfolio. The main credit management goals of the department are:

1. Reducing Economic Capital and Regulatory Capital (Basel I & Basel II).
2. Generating Economic / Shareholder Value Added (EVA).
3. Creating liquidity buffers.
4. Diversification of the credit portfolio

The transactions that have been done are mainly focused on the first three goals. Examples of transactions done by the department are the collateralized loan obligations of SME loans (SMILE 2005) and mortgages (SHIELD). The main goals of both transactions were reducing Economic and Regulatory Capital and generating Economic Value Added. The diversification impacts of both transactions on the credit portfolio were not considered as a primary goal.

There is a need within the department to get more insight and knowledge in the diversification possibilities of the region NL credit portfolio. An investment in an external loan portfolio can for example have great diversification benefits. However, the current transactions that have been done are in one direction; bringing parts of the credit portfolio into the market. The impact on the credit portfolio of an investment in external loans in terms of the change in EC and diversification can currently not be easily measured. This is one of the reasons why there haven't been any investments in external loan portfolios.

### 2.1 Research Goals

The first research goal is to create a methodology to determine the credit risk of a portfolio of external retail assets. It is thereby important to understand the impact of such an external portfolio on the BU NL credit portfolio. The second research goal is bringing insight in the diversification of the region NL credit portfolio and investigating diversifications possibilities.

### 2.2 Research Questions

1. What are the most important drivers that influence credit risk?
2. How can the credit risk profile of an external portfolio of retail assets be determined in terms of EC requirements for BU NL?
3. How is EC allocated between the different product segments within the retail assets of the BU NL credit portfolio?
4. Which diversification possibilities are there for the BU NL credit portfolio?