At Stanford University, At Baruch College, At University of North Carolina Charlotte

### Stanford Bank Game at STANFORD University

Some guidelines, derived from more than 15 years of teaching various versions of the Stanford Bank Game at Stanford, may be of interest to instructors. While these suggestions are not exhaustive, they represent one of a variety of successful formats for presenting and running the simulation package.

## Introducing the Bank Game

At Stanford, the simulator is taught as part of the second year elective course called Management of Financial Institutions. The course deals with the principles of managing commercial and investment banks and other nonbank financial intermediaries. The Bank Game is played largely outside the classroom during the term; the amount of specific class time devoted to the game consists of an introduction during the first class, one class devoted to establishing the logistics of the game and the basis upon which the winners will be selected, and a final class to present team reports at the end of the game. During the rest of the term, the students make one decision per week.

To introduce the Bank Game, the instructor offers three reasons for its use:

1. The Bank Game is a dynamic learning exercise that builds on and supplements course material. Because new topics are covered in every class, much of the course work may seem only weakly linked; however, the game involves making a series of similar decisions over time, allowing students to note the difference between long- and short-term strategies. After the first period, no two teams are in the same place; the lead changes over time, making an interesting sequence of decisions and results.

2. The Bank Game is integrative in that everything depends on everything else in the decision-making process and the number of decision combinations is almost limitless. Making decisions that involve both analysis and intuition in an integrative fashion is one of the most important parts of the game. Of course, as the game progresses, the better teams learn to apply more analysis and less blind intuition by watching the way results unfold from previous decisions. Nonetheless, the game is not meant to be a solvable deterministic problem. Rather it is an exercise in decision making with imperfect information. Analysis is not down played; it is simply placed in the context of real world complexity.

3. The Bank Game is a group learning experience in which working as a team is one of the most important dimensions of the game. Even though instructors stress the importance of group participation, some teams come to be dominated by a single individual's personality or effort, often to the detriment of the learning experience of all the team members. Usually teams dominated by single individuals do not do as well as more participatory teams.

After discussing the reasons for playing the Bank Game, the class is assigned to read the player's manual and to prepare to discuss the following questions at the next class:

How should the winning team be chosen?

What criteria are appropriate?

The instructor gives no other assignment the first day except to ask for voluntary team lists. Those who do not appear on voluntary team lists are assigned to teams on a random basis. Optimal team size is five or six members.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

## Competition

At the second class, team lists are handed out and participants discuss how the winning team should be judged. They may suggest the biggest bank, the most profitable bank, the highest EPS, the most consistent bank (whatever that means), the least risky bank, the bank with the highest stock price (as the player's manual suggests), the bank paying the most dividends, and so on. Students usually carry on a lively and interesting discussion, especially if they are encouraged by the instructor.

After about 45 minutes, the instructor intervenes to suggest that the model's stock pricing function may be the best criterion. Essentially, the students are in total control of their profitability, but to increase profits they must usually take on higher levels of risk. A team can generate short-term profits, but they may introduce exceptionally high risk levels, which they must handle successfully at some future date. The computer program's stock pricing function penalizes a bank for high risk in the short-term (on stock price) because it assumes that high levels of risk reduce the probability of the bank being able to maintain current performance levels. In the early stages of the simulation, students are free to increase the risk; they have the rest of the game to solve the problems this creates. At the end of the simulation, if stock price is the criterion, the students are forced to leave their banks in a reasonable risk position. As long as the bank is paying appropriate dividends and is in a reasonable risk position, earnings (past and current) become the dominant issue in the stock price equation.

## **Explaining the Model**

Some students are much more interested in the model than in banking, and they will-if permitted-attempt to examine every detail of the model in order to "solve" it. Of course, in the extreme, this defeats the combined analytic and intuitive purpose of the game. Also, it is beyond the scope of a single course to dissect the model completely-or even to prove its validity.

In lieu of full explanation, the instructor usually explains that the game is a complex model with parameters that are intuitively appealing. For example, when interest rates charged go up, loan demand goes down; when business development expenses are increased, demand increases. The precise equations for these effects are not revealed. Most are so complex that they would be of limited value in any event.

## The Stock Price

Most frequently, students want to know how the stock price in the Bank Game is determined. Here, the instructor can ask the student how they would determine the price if they were to write the game from the beginning. After some discussion, the instructor can indicate the following:

1. The stock price starts with a smoothed EPS, as noted previously.

2. The EPS is multiplied by an exogenous variable from the economic deck called the industry P/E ratio.

3. The resultant stock price is adjusted upward or downward by the K factor. The instructor usually tells the class the individual components of the K factor, but does not reveal the magnitude of their effect. The player's manual provides a few clear-cut guidelines in this area. The K factor components, shown in the Instructor's Report, generally are considered intuitively acceptable to most students, even though some are inclined to argue about their precise effects. But the Bank Game is just a game; while it represents a model of banking that makes sense, it cannot claim to be a complete replica of the real world. For the students playing the game, however, the model is the real world.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

## **Final Presentation**

For the final class of the course, both the winning team and the runner-up make a 30-minute presentation of their strategy, performance, and group process in playing the Bank Game. Occasionally, the last-place team is also asked for a presentation. All students write a team report of about 10 pages. Grades for the course at Stanford are not dependent on how well a team does, although about 25 percent of the grade does depend on the quality of the written report. The quality of the reports does not necessarily parallel the final stock price of the teams. In fact, teams that do less well in the game tend to learn more about profitability, capital adequacy, and liquidity than teams that do better. They may prove the old adage that every business failure is a learning experience. In any event, the game tends to function better if results and grades are not connected.

In course evaluations, students cite the Bank Game as a major attraction. The Bank Game has been played at other schools with a greater emphasis on the game as the centerpiece of the course. These teaching suggestions show only one possible alternative that you may find helpful.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

### Stanford Bank Game at BARUCH College

## Proposed New Course Description: Finance 4810. Banking Policy. Lower Capstone Course

Prerequisite: Finance 3810 Management of Financial Institutions

An interdisciplinary course concentrating on the problems that confront the chief administrative officers of a banking enterprise. The course stresses the overall company point of view in dealing with top management problems. Working in teams designed to represent the executive management of competing financial institutions, students are confronted with the tasks of analysis and decision--making in a global environment using a variety of case studies. An integral part of this course involves participation in a computerized bank management business game. Requirements include a written report and group presentation focusing on financial results, decision making dynamics, and ethical considerations.

3 hours. 3 credits

Proposal

Finance 4810: Banking Policy. Lower Capstone Course

Summary of Objectives: Why Any Bank Simulation?

Success in today's highly competitive, global banking environment requires managers to fuse financial acumen with managerial, marketing, and technical abilities. The high degree of integration among the bank's various functions requires managers to adopt a comprehensive, integrated approach. If a manager's perspective is confined or circumscribed, there will be unforeseen implications of managerial decisions that will act to the detriment of even the most capable division head. Unfortunately, this unified approach to bank management is not developed in compartmentalized academic coursework. The bank management simulation is a useful vehicle for the instructor to integrate specific bank operations and activities into a unified approach to bank management. The simulation's specific objectives are:

1. To demonstrate the manner in which individual financial and managerial operating decisions interact with one another and with the economic environment so as to determine the bank's overall financial performance;

2. To require students to work in teams to establish overall financial performance objectives for realistically simulated banks and to develop specific policy initiatives to accomplish those goals;

3. To demonstrate the implications of managerial operating decisions in a dynamic and competitive environment;

4. To acquaint students with the techniques and methods of financial analysis of banking firms so as to evaluate their banks' performance and revise their operating decisions;

5. To identify and implement tactics designed to achieve strategic goals in a structured environment where individual performance is judged according to the collective financial performance of the group.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

## The Stanford Bank Simulation: Why This Simulation?

**Version X of the Stanford Bank Game:** The Stanford Bank Game is a microcomputer program that realistically simulates the operation of a commercial bank based upon (1) financial decision inputs supplied by teams of student bank managers and (2) a set of economic and competitive conditions reflecting financial characteristics in the macroeconomic environment. The simulation requires teams to evaluate the financial position and competitive condition of their simulated bank at the beginning of the bank game and then:

1. Establish financial performance objectives for the bank;

- 2. Set managerial goals and objectives for the bank;
- 3. Execute operating decisions for the bank to achieve the desired objectives;

4. Analyze financial statements and evaluate the financial outcome of these operating decisions.

5. Integrate marketing and human resource management strategies in order to attain financial objectives.

The bank game acquaints participants with the techniques and methods of financial analysis of banking firms and gives them the opportunity to apply them in a realistic setting. Teams are encouraged, at the outset of the game, to assign job titles to team members so as to delegate decision making authority and managerial responsibility. After each run of the simulation, all participants receive detailed financial reports of their bank's performance as well as selected data both on competing banks and on the overall state of the external economy. After each iteration of the bank game, the instructor will lead group and team discussions to evaluate performance and to point out the interrelationships between managerial decision making and bank financial performance.

The Stanford Bank Game is currently being used at over eighty colleges and universities in the U.S. Since 1964 countless major banking institutions have used the bank game in their in-house training programs. Version X of the simulation has been updated to incorporate new innovations in the field of banking such as off balance sheet activity, interest rate risk management, BIS capital regulations, and asset securitization. The goal is to provide participants with a hands on practical approach to bank managerial decision making.

### Sample Syllabus by Week Number:

### 1: Introduction

- \* Determination of Long Term Bank Objectives and Strategy
- \* Evaluation of Bank Financial Performance
- \* Assignment of Teams
- \* Allocation of Job Titles Within Each Team

### 2: The Structure of the Banking Firm: Sources and Uses of Funds

- \* Forecasting Commercial Loan Demand
- \* Forecasting Deposit Flows
- \* Determination of Securities Holdings
- \* Forecasting Consumer Loan Demand
- \* Team Decision #1

At Stanford University, At Baruch College, At University of North Carolina Charlotte

## 3: Determinants of Bank Profitability: Net Interest Income

- \* Interest Income: Securities and Loans
- \* Interest Expense: Deposits and Purchased Liabilities
- \* Team Decision #2

## 4: Determinants of Bank Profitability: Non-Interest Income and Fees

- \* Fee Income
- \* Operating Expenses
- \* Team Decision #3

### 5: Interest Rate Risk Measurement and Management

- \* Gap Analysis
- \* Forecasting Interest Rates: Yield Curve Analysis
- \* Team Decision #4

## 6: Credit Risk Measurement and Management

- \* Analysis of Default Risk Exposure
- \* Credit Scoring Models
- \* Team Decision #5

## 7: Exchange Rate Risk Measurement and Management

- \* Currency Risk Measurement
- \* Sovereign Country Risk Exposure
- \* Team Decision #6

## 8: Liquidity Risk Measurement and Management

- \* Reserve Management
- \* "Hot Money" and the Cost of Purchased Liabilities
- \* Team Decision #7

### 9: Capital Structure

- \* BIS International Risk Adjusted Capital Regulations
- \* Bank Cost of Capital
- \* Team Decision #8

## 10: Hedging Using Futures and Forwards

- \* Management of the Bank's Gap Risk Exposure
- \* Simulated Financial Futures and Forwards Transactions
- \* Team Decision #9

At Stanford University, At Baruch College, At University of North Carolina Charlotte

## 11: Hedging Using Options

- \* Management of the Bank's Gap Risk Exposure
- \* Simulated Financial Options Transactions
- \* Team Decision #10

## 11: Hedging Using Swaps

- \* Management of the Bank's Gap Risk Exposure
- \* Simulated Swaps
- \* Team Decision #11

## 12: Managing the Off-Balance Sheet Position

- \* Off-Balance Sheet Book Consisting of: Simulated Futures. Options and Swaps
- \* Securitization and Loan Sales
- \* Team Decision #12

## 13: Strategic Management

- \* Marketing and Advertising to Promote Long Range Goals
- \* Human Resource Management
- \* Wrap Up of Commercial Bank Management Simulation

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At Stanford University, At Baruch College, At University of North Carolina Charlotte

Stanford Bank Game at University of NORTH CAROLINA CHARLOTTE

## Commercial Bank Management - MBAD 6156

The Banrisk Commercial Bank Simulation Project

#### I. Banrisk Project Description

The Banrisk Commercial Bank Simulation Project represents a microcomputer program that realistically simulates the operation of a commercial bank, based upon (1) financial decision inputs supplied by teams of student bank "managers", and (2) a set of economic and competitive conditions reflecting financial characteristics in the macroeconomy. The simulation requires teams of student bank managers to evaluate the financial position and competitive condition of their simulated bank at the beginning of the contest, and then:

**1.** Establish financial performance objectives for the bank; **2.** Execute operating decisions for the bank that achieve the desired objectives; and **3.** Evaluate the financial outcome of these operating decisions.

Each simulation team will be comprised of five or six students. The organizational structure and position responsibilities for each group member are outlined below. Five iterations of the simulation will be completed during the course of the semester, with a two-week time span between each iteration. Decision inputs from each simulation team are due in class of the dates shown in the course syllabus. In order to conduct the simulation effectively, it is imperative that decision input forms be turned in on these dates. LATE INPUT FORMS WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES.

### II. Banrisk Project Objectives

**1.** To acquaint students with the techniques and methods of financial analysis of banking firms, and give students the opportunity to apply these techniques/methods in a realistic setting;

2. To demonstrate for students the manner in which individual financial operating decisions within banking firms interact with one another and the economic environment to determine overall financial performance, and to illustrate how different financial goals may be mutually exclusive;

3. To provide students the opportunity to work in collaboration with others to (1) establish financial performance objectives, and (2) identify and implement tactics designed to achieve these objectives in a structured environment where individual performance is judged according to the collective financial performance of the group; and

4. To refine students' written communications skills by requiring a term paper describing the simulation experience.

#### III. Banrisk Project Structure

The Banrisk project will be integrated within our study of commercial bank management throughout the semester. Specific Banrisk activities will include:

1. An introduction to the methods and techniques of financial analysis within banking firms, focusing on an evaluation of the initial position of the simulated Banrisk bank and an assessment of the initial economic environment in the model. This material is presented in class during the first few weeks of the semester to illustrate for students the evaluative techniques necessary to assess the competitive position of simulated banks following each iteration of the model.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

2. Presentation of selected mini-studies (i.e., cases) by student bank teams throughout the semester. Each team will be required to lead the class in the presentation and discussion of two specific cases identified in the course syllabus. Presenting teams should illustrate the financial methods and concepts presented in each case -- and develop financial spreadsheet models appropriate for the case -- using the most recent data available for their particular bank.

3. A written team report that (1) describes the economic and competitive conditions present in the market at each iteration of the program, (2) outlines the simulated bank's business strategy, financial objectives, and managerial tactics at each iteration, and (3) evaluates the outcome of the team's business decisions and financial strategy using the accounting data provided by the simulation.
4. Completion of a formal peer evaluation that measures the quality of each team member's contribution to the Banrisk tasks required throughout the semester.

#### **IV. Banrisk Project Components**

Students will receive three separate grades in connection with Banrisk Project activities. This section summarizes the content of each graded activity and the way in which each activity will be evaluated. 1. Case Presentations

In Banrisk, you learn about commercial bank management by evaluating the financial impact of your management decisions. At first this task may appear somewhat intimidating, because the simulation provides a large quantity of data for your review. As you become familiar with the computer printouts and financial information that you receive from the simulation, however, you will find that you are able to organize and interpret the data quite rapidly. In short, you will begin to develop the organizational skills and analytical ability that practicing financial managers must possess.

Some of the financial relationships contained in the Banrisk simulation are quite basic and intuitive, and you will recognize these relationships with very little instruction. Other relationships are more subtle, and these require more practice to learn to recognize. The case applications (i.e., mini-studies) contained in the Banrisk Manual provide a wealth of information concerning the finer points of bank management. Each case examines a different financial management problem, shows how to organize the Banrisk data to evaluate the problem, and explains how to interpret the results of your evaluation. Table 1 identifies each of the 20 cases included in the Banrisk Manual, and lists the specific member of your management team most likely to benefit from the analytical methods described in the case. Many of the cases are self-explanatory, and these can be covered by student bank teams outside the classroom. Cases identified by a "B" in the Coverage Code column of Table 1 should be discussed during team meetings a few weeks after the initial simulation iteration.

In contrast to the self-explanatory cases described above, some of the Banrisk mini-studies require more detailed analysis. These cases, identified by a "C" in the Coverage Code column, will be presented by one of the student bank teams during class time. Over the course of the semester we will cover nine different cases in class.

The presentation dates for these cases are shown in the course syllabus, and the specific bank team responsible for each presentation is shown in the "Presenting Team" column of Table 1. Each bank team will be responsible for one or two different presentations during the 15-week semester.

Leading the class in a discussion of a Banrisk case involves:

1. Summarizing the financial problem addressed in the case;

2. Explaining where the data necessary to evaluate the problem are located within the Banrisk computer printouts;

3. Preparing a financial spreadsheet -- or some other appropriate evaluative methodology -- that addresses the case, and explaining your model to the class; and

At Stanford University, At Baruch College, At University of North Carolina Charlotte

4. Responding to questions and comments from the instructor and other members of the audience.

Case presentations will represent 10 percent of students' final course grades. Each presentation will be evaluated according to the following dimensions:

1. The quality of the oral presentation;

The quality of the financial spreadsheet or other solution methodology provided to the class; and
 The logic and validity of responses to questions and commentary from the instructor and members of the audience.

#### Team Report:

While student bank management teams compete throughout the semester on the basis of bank financial performance, students' course grades for the Banrisk project are NOT based upon the financial performance of their respective banking firms. Rather, each group is required to submit a formal, written report detailing the goals, operating decisions, and financial performance of their bank. Authorship of this report represents a group effort, with each respective group member having responsibility for specific sections of the report.

The organizational format of the report, the management positions responsible for preparing each section, and approximate section lengths are as follows:

### I. Introduction (5 pages)

A. Analysis of the economic and competitive environment surrounding the bank at the start of the contest, followed by interest rate, inflation rate, and GNP growth rate forecasts for the coming quarter (Economist) [1 page].

B. Analysis of the financial condition of the bank at the start of the contest:

1. Leading Area Report (VP - Lending) [1 page].

2. Operations Area Report (VP - Operations) [1 page].

3. Controller's Report (Controller) [1 page].

C. Statement of the team's business definition, the corporate mission of the bank, and specific group financial goals established at the start of the contest (President) [1 page].

### II. Iteration #1 (4 pages)

A. Statement of financial objectives for the quarter, the management strategy being used to achieve these objectives, and the expected financial outcome of this strategy (President) [1 page].
B. Statement of area operating tactics implemented this quarter, followed by an evaluation and explanation of the actual financial results that occurred during the quarter:

1. Leading Area Report (VP - Lending) [1 page].

2. Operations Area Report (VP - Operations) [1 page].

3. Controller's Report (Controller) [1 page].

### III. Iterations #2 through #5 (5 pages per iteration)

A. Analysis of the economic and competitive environment surrounding the bank at the start of the quarter; a brief review comparing actual and previously forecast levels of interest rates, inflation, and GNP growth; and a new forecast for interest rates, the inflation rate, and growth in GNP for the coming quarter (Economist) [1 page].

B. Analysis of overall financial performance from the preceding quarter; followed by a statement of financial objectives for the coming quarter, the management strategy being used to achieve these objectives, and the expected financial outcome of this strategy. This report should identify and explain any changes in the bank's business definition, corporate mission statement, or goals occurring since the last iteration; and link these changes to the financial objectives and operating tactics planned for the coming quarter (President) [1 page].

At Stanford University, At Baruch College, At University of North Carolina Charlotte

C. Statement of area operating tactics implemented this quarter, followed by an evaluation and explanation of the actual financial results that occurred during the quarter:

1. Leading Area Report (VP - Lending) [1 page].

2. Operations Area Report (VP - Operations) [1 page].

3. Controller's Report (Controller) [1 page].

*IV. Conclusions (5 pages)* 

A. Summary and analysis of the bank's overall financial performance during the simulation (President) [1 page].

B. Description of best management decisions (i.e., those actions which contributed most directly to the attainment of group goals) executed during the simulation:

1. Economic Forecasting and Market Analysis (Economist) [½ page].

2. Leading Area Report (VP - Lending) [½ page].

3. Operations Area Report (VP - Operations) [1/2 page].

4. Controller's Report (Controller) [½ page].

*C.* Description of worst management blunders (i.e., those actions which prevented the attainment of group financial goals) during the simulation:

- 1. Economic Forecasting and Market Analysis (Economist) [1/2 page].
- 2. Leading Area Report (VP Lending) [½ page].
- 3. Operations Area Report (VP Operations) [1/2 page].
- 4. Controller's Report (Controller) [½ page].

The team report required from each group represents 20 percent of each group member's final course grade. This report is to be typed, double-spaced, approximately 35 pages in length, and conform to the structural outline provided above. Research reports are due in my office by 5 p.m. on the date shown in the syllabus. Late papers will not be accepted, resulting in a project grade of zero for all members of the group.

While the Banrisk paper requires a group effort, individual student grades for this project may vary across different members of a given bank team with the quality of each student's contribution to the paper. Each member of the Banrisk team is assigned specific position responsibilities (see the job descriptions shown below) and specific authorship responsibilities (see above). The position responsibility of each student within the group must be disclosed on the title page of the Banrisk report to facilitate the assignment of student project grades.

The financial performance of simulated banks will not affect students' grades for this assignment. Rather, student grades depend upon the quality of the group's written report. Many student teams that do poorly in the contest learn more about bank profitability, capital adequacy, liquidity, etc., than teams exhibiting superior financial performance. Hence, poorly performing teams often receive higher project grades.

The quality of the Banrisk written reports will be evaluated according to the following dimensions: 1. Students' ability to establish clear, measurable financial objectives; and define operating tactics that support these objectives;

2. Students' ability to evaluate accurately the financial position of their simulated banks and the economic environment, and explain why specific simulation outcomes occurred;

3. Students' ability to integrate the different position responsibilities within the project into a coordinated effort to reach collective group objectives; and

4. Students' ability to communicate clearly in a formal, written manner the results of their simulation experience. In other words, writing skills count.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

5. Peer Evaluation. The Banrisk simulation requires a collaborative effort. Similar to the business world, students must work together to achieve a collective goal, where the performance of the group depends upon the sum total of each individual team member's contribution to the group. Thus, each team member bears a responsibility to the group for the outcome of the project, and a single team member who fails to meet the group's expectations can ruin the performance (and affect the grade) of the entire group.

In this circumstance, personnel management becomes a critical component within each Banrisk team. Coordinating the activities of different group members, resolving disputes between various individuals, arranging appropriate times and locations for team meetings, sanctioning group members who do not meet the performance expectations of the group, and rewarding members who surpass group expectations represent some of the activities that each team must manage. These personnel management responsibilities are controlled by student bank teams -- the instructor will not interfere in the organization, structure, and management of the Banrisk teams.

As personnel managers, however, you must also have the authority to discipline and/or reward members of your group based on individual performance differences. In order to give you this authority, the contribution of each group member will be jointly evaluated by other members of the group. This evaluation, submitted with the Banrisk written report, represents 10 percent of students' final course grades. Peer evaluation instructions are provided in the Joint Assessment of Individual Performance form, shown in Exhibit 1 below.

To insure an accurate evaluation for each member in your group, it is important for students to render honest, fair, and objective peer evaluations. Do not treat your power to evaluate one another lightly -use it to reward those particular students who were especially diligent and capable team members, and to penalize those individuals who contributed little to the group effort. In addition, do not ignore the personnel management function in your early team meetings, acting under the illusion that your team will never encounter any differences of opinion or problems with poorly performing team members. The most successfully managed groups (and business firms) anticipate potential problems before they occur, and formulate explicit policies for handling these problems when they occur.

### V. Banrisk Organizational Chart and Job Descriptions

In order to help students save time and organize their simulated banks in an effective manner, the following listing provides a brief job description for each management position required in the Banrisk project, identifies the financial responsibilities associated with each position, outlines the location of financial data in the Banrisk computer printouts of most interest to each position, and identifies the mini-studies in the Banrisk manual that are most relevant to each position.

## PRESIDENT AND CHIEF EXECUTIVE OFFICER (CEO)

Duties: To determine general bank objectives; develop, integrate, and implement business strategy designed to achieve bank objectives; monitor overall profitability of bank; monitor bank stock price movement; and coordinate and control all activities of the senior management team. Major Responsibilities: Balance Sheet Page 1; Income Statement Page 1; Dividend Policy Page 1; Common Stock Price Page 1. Cases: 16.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

#### ECONOMIST AND AUDITOR/SECRETARY

Duties: To monitor the financial, competitive, and economic environment surrounding the bank, forecast financial trends in the banking environment, assess competitive threats and opportunities within this environment, complete group decision forms on a timely basis, and maintain bank records concerning group decisions and financial performance.

Major Responsibilities: Forecasting Interest Rate Changes Page 7; Forecasting Macroeconomic Conditions Page 7; Forecasting Funds Availability Page 7; Monitoring Other Banks' Position and Strategy Pages 8 and 9; Evaluating Other Banks' Ratios Page 6. Cases: 19.

#### VICE PRESIDENT OF LENDING

Duties: To manage all aspects of the bank's loan portfolio, including commercial loans, commercial loan commitments, and commercial letters of credit; consumer installment loans and credit card receivables, and mortgage loans.

Major Responsibilities: Forecasting New Loan Sales Page 2.7; Monitoring Loan Charge-Offs Page 2.7 and 2.11; Monitoring the Loan Loss Provision Account Page 2.7; Establishing Credit Policy Page 2.7; Determining Loan Interest Rates Pages 2.7 and 7; Determining Loan Fees Page 2.8; Determining Letter of Credit Policy and Fees Pages 3.16, 3.18, & 3.19; Monitoring Loan Commitments Pages 3.17 and 3.18; Forecasting Commercial Loan Payments Page 4.21; Determining Credit Card Fees Page 3.14; Determining Credit Card Processing Fees Page 3.19; Determining Mortgage Loan Servicing Fees Page 3.18; Determining Mortgage Loan Initiation Fees Page 3.18; Forecasting Consumer Loan Payments Page 4.22; Forecasting Mortgage Loan Payments Page 4.22. Cases: 1; 5; 10; and 13.

#### VICE PRESIDENT OF BANK OPERATIONS (CASHIER)

Duties: To manage all aspects of the bank's deposit acquisition activity, supervise personnel administration; and control bank expansion/contraction activity.

Major Responsibilities: Monitoring Demand Deposit Acquisition Pages 2.2, 2.9, & 7; Monitoring Time Deposit Acquisition Pages 2.3, 2.8, & 7; Forecasting CD Availability Pages 2.10 and 7; Monitoring Required Reserve Position Pages 2.4 and 7; Monitoring Personnel Expenses Pages 3.19; Managing Bank Expansion/Contraction Page 3.20.

Cases: 2; 3; 4; 6; 7; 8; 14; 15.

#### CONTROLLER/CHIEF FINANCIAL OFFICER

Duties: To manage the bank's investment portfolio, recommend and implement gap management strategy, recommend and implement changes in bank capital structure, supervise trust and accounting activities, and administer corporate banking services (i.e., correspondent banking relationships). Major Responsibilities: Monitoring Bank Cash Management Activities Page 2.5; Monitoring Bank Securities Portfolio Page 6; Establishing Optimal Gap Risk Factor Page 5; Controlling Purchase and Sale of Federal Funds Pages 2.8 and 7; Controlling Discount Window Borrowing Page 2.8; Issuing Capital Notes Pages 2.6 and 7; Issuing New Common Stock Page 10; Maintaining Trust Portfolio Page 3.12; Controlling Trust Income and Expense Pages 3.18 and 3.19. Cases: 11; 12; 17; 18; 20.

At Stanford University, At Baruch College, At University of North Carolina Charlotte

Stanford Bank Game at Warsaw Institute of Banking. Accessed December 2015. Wib.org.pl. HRW granted WIB permission to rename Banrisk in 2000.

## EUROBANKRISK GAME, EBRG

### The European Bank Training Network Competition

A powerful, state-of-the-art learning tool for bankers across Europe, a unique opportunity to contrast the various banking approaches in risk management in different countries, and a great integrating corporate experience for participating banking organisations: everybody supports the HOME TEAM.

## Background

Many EBTN members use various bank management simulation games to provide interactive, hands-on-experience training opportunities for their clients. The most commonly used computer programmes are BankSIM, BankMod, BanExec or BankRisk, but there are many more. They all cover similar contents, apply similar computer formats and didactic approaches. Some are general, some focus on branch management, credit risk management or dealing operations. So far they have been mostly residential, instructor led courses.

## WIB's experience

The Warsaw Institute of Banking has been using banking simulations in its programmes for over ten years. The first version of the programme was called BankExec and was licensed to WIB under a US technical assistance programme. First seminars were delivered by American trainers and were enthusiastically received by the participants. The license was then extended and a Train of Trainers programme for Polish instructors was delivered. The next step was for WIB to buy the licence for an updated version of the simulation, translate the training materials into Polish and continue to train Polish bank managers and executives via this excellent hands-on-experience tool. Further on, the Institute offered this programme internally for banks; then trained internal trainers of banks to deliver the seminar to their colleagues, with WIB supporting only the technical part of the simulation.

In October 2001 the Warsaw Institute of Banking launched a new project which was based on the newest version of BankRisk simulation game originated at the Stanford University. It was an interbanking competition for teams of bankers, delivered via e-mail and Internet. The first edition of the competition proved very successful. It attracted 8 teams from 7 big banks operating in Poland, including Bank Handlowy S.A., a member of Citigroup, Societe Generale, Raiffeisen Bank, GE Capital Bank, BRE S.A. Bank (owned by Commerzbank) and PKO bp S.A. (the Polish biggest retail bank). As in a traditional programme the teams started with designing a strategy of their banks and then followed with a set of decisions managing assets, liabilities, profits and dividends. They strive for the biggest increase of their price share at the simulated stock exchange. Throughout the game they received substantial amount of information about the macroeconomic environment, about their performance in consecutive guarters and about their competitors. There was also the Chief Mentor of the Game and the Manager of the Game to support them in their decisions. They communicated via e-mail and Internet throughout the game. The final ceremony was a media event transmitted over Internet, with a guest speaker videoconference between Warsaw and New York. All participants valued highly their experience with BanRisk. When asked about the key benefits that they were carrying away from the competition they stressed how much they learned, both from 'battling' with the simulation and from observing and analysing the actions of the other teams. [emphasis added by HRW, Inc.]

## **EBTN Project**

The high marks and the amount of enthusiastic comments by the participants of the first edition of the Polish competition encouraged WIB to go further with this idea. Thus, the EUROBANKRISK GAME was

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designed as an innovative training opportunity for teams of young bankers representing their banks and countries in the Unifying Europe. EBRG was presented to the General Board of EBTN and accepted as an EBTN project for 2002. Important to say is that EBRG received substantial support from the Agency of Financial Technology Transfer in Luxembourg who decided to sponsor participants from EU accessing countries.

The underlying goals of the project are: To promote the idea of the European banking community, To offer a truly European opportunity for training, exchange of experience, ideas and networking, To promote best practices in bank risk management across Europe, To promote e-learning on the European level.

The key objective of the EuroBankRisk Game is to improve participants' knowledge and skills in managing a bank, with a particular focus on risk management. The participants get a solid understanding of the big picture of the bank and of the interrelationships among various business lines and different bank functions; the result being the bottom line of the bank. Participants benefit from having an opportunity to contrast the banking approaches in the different European countries and see the different realities, hence learning from the experience of others. They test their knowledge and skills in a simulated real life banking environment, which allows them to learn from good decisions as well as mistakes. Importantly, they are members of a team and they learn how to collaborate with colleagues to make strategic and operational decisions in managing a bank and see the results of these decisions. Last but not least, they are part of a unique networking experience which can last beyond the limits of the game.

And how do they play? Each team represents a virtual bank. It is recommended that young managers and experts from various business lines or functions are represented on the teams as it increases the learning benefits and promotes a better understanding of what bank management is across banking departments. All banks operate on a common market which is simulated by the computer programme. The competition starts with a one day distance learning session, supported with Internet communication and e-learning facilities. During this session the participants get to know each other and the Chief Mentor, who coach them throughout the game. They familiarise themselves with the fundamental rules of the competition, they make their first trial decisions and have it commented by the Chief Mentor. The whole game takes a minimum of 8 counted decisions. The teams start with the development of a strategy for their bank and then they manage assets, liabilities, capital, profit and dividend etc. Each decision is analysed by the Chief Mentor who reports the results back to each team and comments on their performance. Overall comments on the game and performance of teams, including common mistakes and particular good decisions, are prepared by the Chief Expert of the Game. The competition ends with a one day residential session during which each bank holds its general assembly and reports on its strategy implementation and results. The Chief Mentor and Chief Expert sum up the competition and draw training conclusions and recommendations for the participants. The winner is the team whose share price increased most on the simulated stock exchange of the EuroBankRisk Game. The winning team get the main prize awarded by EBTN. There are also special prizes by other partners.

This is exactly how the first edition of EUROBANRISK GAME progressed. It started with an on-line, Internet training session on March 21, 2003. Teams from 9 European countries participated in the competition, namely: Czech Devils, Spirit of Hungary, Zeme Latvia, Moien Bank (Luxembourg), Litas

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(Lithuania), MA Poland, Albrom Romania, National Investment Bank of Russia and KLK-Ukraine. Altogether there were 55 participants. The game lasted for 3 months. All participants met together in Warsaw, in June last year for the final of the game. The winner was the Lithuanian team, 'Zeme Latvia', whose share priced increased by 73.7 per cent during the game. The participants gave an average of 4.58 as the overall evaluation of the programme. In their comments they underlined that it was a great occasion to learn and to meet and confront with other countries. They all agreed that it was an excellent learning opportunity where they could test their theoretical knowledge and see the outcome of their decisions. That is why, they said, simulation games were best ways to learn. One of the participants stated in his evaluation form: "European BankRisk Game is a good part of European banking community uniting job". Having received such reviews, the decision to continue with second edition of EBRG 2004 was supported by EBTN members. For the second time ATTF will be sponsoring teams from 10 European countries, Moody's KMV will be the lead sponsor of the game and Opera Multi Media will provide the needed technological infrastructure.

EUROBANKRISK Game is a good example of a powerful training programme that can bring material benefits to all the parties involved. Participants are undoubtedly taken by the versatility of EBRG experience. From the perspective of participating banks it increases qualifications of banks' managers and experts in bank financial and risk management: they can verify and improve decision making skills that consolidate the shareholder value of a bank. The employees get a better understanding of how the bank operates on the market and how the competitors may act in various market situations. The participating banks can incorporate EBRG in their internal professional development schemes, gaining a stronger image as an innovative European bank employer who values human capital as its key asset.

Finally, EBRG carries attractive opportunities both for EBTN as an organisation and for EBTN individual members: serving the needs of the members' clients – the banks and the bankers - it serves the needs of the members themselves. It is a good manifestation of how EBTN mission and goals can be implemented. It offers features which are of fundamental importance to the Network, i.e. the European dimension of bank training, effective promotion of modern training technologies and enhancement of those bank qualifications which are at the top of priorities in the banking business today and in the future, namely risk management. Having said that, one has to remember that the importance of the project in EBTN activities and the scale of the benefits it can bring to the organisation, to its members and to their clients lies in the level of participation. We have shown that we had a good idea, we proved it works. Now we need to open up this powerful opportunity of learning and networking to as many young bankers in Europe as possible. Let them have the unique experience of EBRG as a good example of what EBTN has to offer in professional, innovative bank training in Europe.

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