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RISK MANAGEMENT AND ASSESSMENT IN LENDING PROCESS IN BANKING: A TOOL FOR EFFECTIVE LOAN MANAGEMENT

MASTER THESIS

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I. INTRODUCTION

The purpose of this thesis is to provide goals and ways for the management applied to the lending function by illuminating the strong correlation of the efficient risk management techniques to the proper loan administration and by the way, to define the lending functions involved in the stages of risk management.This thesis seeks to fulfill its purpose by providing bankers with the tools they need to make better loans, and at the bottom line, help them to increase the profitability of their institutions.

The conclusions to be drawn on this thesis mainly depend on the experience and observations of the lending personnel in banks in Turkey.

This thesis is conducted to overcome some misunderstandings about the credit risk concept and furnish the lending personnel with knowledge of the risk management and give themselves the opportunity to test their loan administration policies and styles. For this reason, a way that is trying to define, analyze and measure the risk in all of the stages of loan implementation process has been pursued in this thesis. And that related stages is also detailed by setting forth the strategies and procedures a loan manager can use to achieve the desired objectives with minimum risk perceived.

Section II defines the concept of risk and thereon, risk areas effecting objectives of loan management. The importance of a written policy in risk management as a general philosophy of lending is discussed in Section III. Section IV discusses risk management and assessment at the time of approval process.The section develops loan approval procedures to ensure that loans comply with loan policy, and describes means of monitoring. Section V involves with risk management and assessment after the loan approval stage, i.e., in the loan review stage. The section discusses the purpose and procedures of loan review and its effect on lenders, management, and the board of directors. In addition, the section outlines the contents of thorough review including credit quality, documentation, pricing, valuation of collateral, and compliance with policy and regulations. The Appendix provides a sample loan quality rating model out of which a single risk number is computed.

II.RISK MANAGEMENT AND ASSESSMENT IN LENDING PROCESS : A TOOL FOR EFFECTIVE LOAN MANAGEMENT

2.1.The Definition of Risk

Some writers, for example Rothkopf (1), turn for immediate guidance to dictionary resources for establishing base definitions of risk.Rothkopf quotes Webster's Third International Dictionary, in which risk is defined as the possibility of loss, injury, disadvantage or destruction. Other dictionaries would probably provide similar definitions.

One view of risk that is common in the management literature is that risk can be thought of in terms of variability or uncertainity (2).

Some writers mean by risk both uncertainity and the results of uncertainity. That is, risk refers to a lack of predictability about structure, outcomes, or consequences in a decision or planning situation.Risk is therefore related to concepts of chance such as the probability of loss or the probability of ruin (3).

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(1) Rothkopf, M.H.," On Measuring Risk",N.Y.,Working Paper, Xerox, Palo Alto Research Center,1975,p.3

(2) Tversky, A. and Kahneman.D.,"Judgement Under Certainity: Heuristics and Biases.",Science,Vol.185 (Sept.,1977), pp.24-27

(3) Hertz, David B.& Thomas, Howard ,"Risk Analysis and Its Applications", N.Y., first ed., John Wiley & Sons, 1984, pp.8-18

2.2.OBJECTIVES OF LOAN MANAGEMENT

A discussion of loan management can not begin without defining objectives.Once those objectives are established, the measurement of results, strategies for implementation, and the necessary managerial skills can be outlined.

The objectives of loan management must complement the goals and strategies of the bank's top management and board of directors.Obviously, clarity and good communications are essential ingredients in the objective-setting process.The bank's goals must be effectively transmitted so that objectives at all levels contribute to the bank as a whole.Once a supervisor and a subordinate agree on the objectives, standards can be established so that all concerned know exactly what results are expected.A healthy work environment can result, with higher productivity and increased impact on profitability (4).

The objectives of loan management generally fall into two areas (5): management of portfolios, and the training and development of people.

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(4) Hayes, Douglas,"Banking Lending Policies:Domestic and International", Michigan, Ann Arbour:Bureau of Business Research, University of Michigan, 1971, pp.47-48

(5) Robert Morris Associates and the Banker's Asociation for Foreign Trade, " Preparing A Bank's Written International Lending Policy", Philadelphia, 1977, pp.1-3

2.2.1.Management of Portfolios

Objectives for managing portfolios can be classified as achieving desired profitability,contributing to the overall funds management objectives of the bank, and accomplishing business development results on both sides of balance sheet.

a)Profitability objectives:While operating within a framework of managed risk, the loan manager must achieve assigned profitability objectives.These objectives can be isolated by examining a typical statement of income as presented in Exhibit 2.1.Four key areas are indicated where a loan manager can have a dramatic impact on the bottom line.

Exhibit 2.1.- Statement Income for X Bank (TRL MM)

Interest Income	66,060
Less interest expense	46,715
1. Net interest income	19,345
2. Less provision for loan loss	1,290
3. Plus noninterest income	7,825
4. Less noninterest expenses	18,880
Less taxes	1,165
Plus security gain (loss)	(320)
Net Income	5,515

b)Business Development: One of the objectives of loan management is portfolio management.Unfortunately, managers frequently concentrate their efforts only on the asset side of the balance sheet.However loan managers should also be responsible for funding their portfolios.This way they have total responsibility for net interest income.Thus, loan managers have liability or deposit responsibility by servicing and expanding their existing customer base and developing new customers.As part of long range planning, the marketplace and the expertise of the lending staff must be examined as well as its future potential.One result of long-range planning is analysis of the department's current businesses and what businesses should be pursued.

2.2.2.Training and Development of Lenders

Objectives for the management of portfolios can be developed with fairly quantifiable terms.Objectives relating to the training and development of lenders, on the other hand, are difficult to quantify and include many judgemental factors.Some objectives should be established in areas such as initial selection, training, on-the-job development and development of managers.

2.3.Risk Areas Effecting Portfolio's Profitability

In the area of profitability, the desired result must be achieved within acceptable and managed risk constraints.The

risks to consider include those related to credit, liquidity, interest sensitivity, and the economy. These risks must be recognized, quantified to the extent possible, and managed.

2.3.1.Credit Risk

Management must decide how much risk it is willing to take and what rewards it expects in return.In establishing objectives, conditions of marketplace must be considered, as well as the expertise of lending personnel.The higher the risk, the stronger the loan administration must be.Increased risk demands strong and experienced loan officers, good systems and procedures, and an ability to react rapidly to adversity. Management must also determine how much appetite it has for risk.

Risk is difficult to quantify.But unless it is, lenders have difficulty in deciding what is good business for their banks.Although credit risk is difficult to quantify, objectives can be established that provide guidance for lenders.Objectives could be set in the following areas:

a)Risk rating: Banks have been experimenting with many different approaches to risk rating.Most seem to adopt a grade 1-to-5 method.Once loans have been rated on this scale, it is a fairly simple matter to break a portfolio down by risk category and track trends over a period of time. Objectives can then be established regarding the overall weighted aver-

age risk or maximum limits within certain classifications.

b)Delinquency: This is a good predictor of loan quality and future charge-offs and should be monitored closely.Monthly trends should be watched.

c)Watch-listed assets: Problem loans identified internally and placed on a watch list should be tightly controlled with periodic objectives established for their totals.

d)Classfied loans to total loans: This ratio results from regulatory agency examinations which may occur sporadically.Neverthless objectives should be established in this area and monitored periodically.

e)Charge-off limits: Few areas have as much impact on profitability as net charge-offs.Because there can be wide swings in this figure, objectives should be established on both a short- and longer-run basis.

f)Technical exceptions: Technical exceptions are lapses in loan craftsman ship appearing as out-of-date financial data, improper documentation, lack of insurance assignments, missing guarantor's statements, etc.Technical exceptions can be monitored by periodically totaling the loan amounts containing technical exceptions and comparing that sum with total loans

outstanding.If this figure appears excessive, objectives for reduction should be set.

2.3.2.Liquidity Risk

A bank must maintain a reasonable liquidity level or suffer severe sequences.On the asset side of the balance sheet, liquidity can be maintained through unpledged short term investments, loan run-off and the ability to sell or participate loans because of their credit quality and appropriate pricing.On the liability side, liquidity can be raised through deposits or borrowing.Raising liquidity through liabilities depends on confidence in the bank.This in turn can be related to asset quality and earnings.The responsible loan manager is a key individul in maintaining liquidity.He or she must be familiar with liquidity objectives established in the funds management process.As a minimum, the manager should have a feel for projected growth or run-off of the portfolio and what block of assets is readily salable.

2.3.3.Interest Sensitivity Risk

Interest sensitivity risk concerns the yield on interest-earning assets. The risk is that they will not respond appropriately to changes in rates on the liabilities that fund them.Interest risk can be alleviated through funds management. This process strives for an optimal combination of assets and

liabilities in order to achieve the desired level of profitability within managed risk constraints.Where sensitivity, which is the ability to reprice, is matched on both the asset and liability sides, net interest income is stabilized when there are major market swings in rates.This occurs because both assets and liabilities respond to changes in market rates simultaneously.Managing the mix of interest-earning assets can improve the spread and increase net interest income.

A rate sensitivity gap exists in a defined period when there is a difference between rate-sensitive assets and rate-sensitive liabilities.This gap is often expressed as a ratio of rate sensitive assets divided by rate sensitive liabilities. Where interest-sensitive assets exceed interest-sensitive liabilities, net interest income will rise when rates rise rapidly and fall in periods of rapidly falling rates.The gap is, in effect, a speculative position with a risk which must be recognized and managed.

Loan managers are key individuals in achieving funds management objectives.They should understand their roles and have objectives in the following two areas:

1.What sensitivity is expected in their portfolio and how does that sensitivity contribute to total funds management objectives?

2.What margin over the cost of their funds is to be achieved so they ensure individual loans are priced appropriately to achieve that margin?

2.3.4.Economic Risk

Although loan managers can do nothing to control general economic conditions, they can attempt to limit the effect economic swings have on their portfolios.Business cycles affect a loan portfolio in three areas.Following are the three areas of exposure:

a)Concentration by industry or country: A loan manager must decide what a significant concentration would be in relation to such factors as bank capital, total loan portfolio, and loan loss reserve.Then exposure in various industries that exceed the concentration floor need to be monitored.By monitoring concentrations, maximum exposures can be developed, as well as the frequency of the loan review.In the international area, the same approach applies to country risk.

b)Concentration by financial structure: Certain companies or industries have financial structure characteristics that make them vulnerable to the business cycle.These characteristics include high leverage, earnings volatility, and sensitivity to changing interest rates.An example is a finance company with

little sensitivity on the asset side and a high amount of interest-sensitive short-term debt on the liability side.Total exposure in such areas should be recognized, monitored, and reasonable limits established.

c)Concentration by products: Certain loan departments offer differnt products or credit facilities.These might include seasonal loans, term loans, and asset-based revolving credit.Each type of credit has different risks related to its means of repayment.In the examples cited, risk increases significantly from the seasonal loan repaid through conversion of current assets to the term loan repaid from profits to the revolving credit or equity loan with no definite repayment.In the case of such high-risk concentrations as revolving credit, the frequency of review should be increased in difficult economic times.

III.THE IMPORTANCE OF WRITTEN LOAN POLICY IN RISK MANAGEMENT

3.1.Lending Policy Rationale

"The written loan policy should be the logical outgrowth of a rational management process, articulating objectives and delegating responsibility.The benefits of a policy statement lie not so much in the statement itself, but rather in the deliberative process by which it is produced. Presumably, the management/lending team will think through the whole process of how funds are intermediated and arrive at some judgement of how risk is assumed.Then, by putting this statement in writing, the communication of it is enhanced in terms of both convenience and clarity" (6).That opinion expressed by Robert H.Bukowski (1976), reflects a viewpoint that is relevant to the formulation of a written loan policy.

If a written lending policy is not established in any kind of bank, the bank will naturally disburse credits according to the present conditions with which it faced and manage credits case by case.At some point of time in future, there would be nothing to do with it, when the risk of the portfolio has reached to an undesirable level at which further elaboration would not work.A written lending policy, on the other side, would provide for lending personnel prescribed courses of

(6) Bukowski, Robert H., "Written Loan Policies: Can They Help", U.S.A.,Burroughs Clearing House, July, 1976, p.41

actions and would diminish the probability of the ocurrence of risky situations in future.

Without a loan policy, lending decisions could be concentrated within a few individuals at the top or, at the other extreme, scattered throughout the bank.In the former situation, the decision-making process can be time-consuming to the detriment of customers.In the latter case, inconsistencies in such areas as credit quality, pricing and loan structuring may develop. The board of directors must receive and review information that establishes the degree of compliance with loan policy. This information should provide an effective barometer of adherence to policy (7).

3.2.Contents of the Loan Policy

Although sound principles of loan administration vary little from policy to policy, differences in emphasis appear because of natural differences in banks.These arise because of different goals, markets, financial structures, size, competition of banks, and expertise of staff.Consequently, each bank must develop its own policy reflecting its own needs.

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(7)Maloane, Robert B.,"Written Loan Policies", The Journal of Commercial Bank Lending", Vol.58 (June,1976), p.20

It should be kept in mind that, a policy is not a procedure, since policy establishes a philosophical framework for lending activities while procedures provide answers to how-to-questions.The content of a loan policy can be summarized in following headlines.

3.2.1.Introduction

The loan policy introduction states the reason for having a written policy and outlines very briefly the general lending philosophy of the bank.

3.2.2.Loan Policy Objectives

This section of the policy sets forth the objectives the bank hopes to achieve through following the loan policy.By setting these objectives, lending personnel would know what is expected of them and would averse from the situations that throw bank into undesirable and risky status. Examples of objectives generally include:

- Maximizing earnings over the short and long range within managed risk limitations
- Approving loans for economically productive purposes within the bank's market area.
- Generating sound and profitable long-term loan and deposit customers
- Training and developing technical and managerial lending personnel.

- Generating and maintaining loan and deposit volume consistent with the bank's deposit and capital funds base and composition of assets other than loans.
- Adapting to changing economic, technological, regulatory,and competitive conditions.

3.2.3.Compliance with Laws and Regulations

This section of the loan policy contains a statement of intent to comply with all aplicable laws and regulations of appropriate agencies.The policy should also say that the bank will not discriminate against any applicant or customer.

3.2.4.Administration of the Loan Policy

This section of the loan policy outlines the procedures for updating, interpreting, and implementing the loan policy.It also designates an individual to be responsible for these procedures.

3.2.5.Lending Authority

Even though the board of directors is ultimately responsible for granting credit, it delegates authority to act to officers of the bank.This section sets forth the authority delegated to individuals or groups.Examples of those authorized include:

- Individuals or positions such as the senior loan officer.
- Loan committees, with their composition defined.
- Those individuals or groups who may further delegate authority.

3.2.6.General Approval Criteria

This section outlines the criteria used in evaluating loan requests.Evaluation criteria to consider include :

- Market area: In defining its market area, management must consider its size, expertise, ability to monitor credit, and the capacity to withstand adversity.

- Purpose: All loans should have reasonably identified purposes that are recorded in the credit file.

- Repayment: Loans are generally made only when a specific source of repayment can be identified and agreed on by the bank and the borrower. Most loans should also have a secondary source of repayment which is frequently collateral.Where collateral is taken, however repayment ability rather than security must receive the primary emphasis.

- Indefinite repayment program: Many loan policies do not provide for loans without definite repayment programs.Yet bank loan portfolios contain many such loans.Policies that do not

provide for these loans generally do not reflect the reality of the marketplace.An example is a loan that provides permanent capital, such as a loan to an auto dealer or a cattle feeder, or provides asset-based revolving credit.Such loans must be identified and monitored closely.

The loan policy should outline conditions under which these credits could be approved.For example, the policy can indicate that permanent capital loans can be extended only if the following conditions are met:

1. The loans are secured by the liquidation value of collateral with a reasonable margin.
2. The bank receives periodic reporting on the financial condition of the borrowers.
3. Periodic physical inspections are made by qualified lending personnel and the results of the inspections are reported in the credit file.
4. The pricing justifies the additional expenses of supervision.
5. Sufficient expertise must exist to administer the loans properly.

- Maturity: The policy should authorize an individual or group to establish maximum maturities for various types of loans.

- Credit Information: All loans are supported by such current credit information as financial statements, credit

bureau reports, direct trade checkings and so on.

- Deposit relationship: The policy states the effect of a depository relationship has on the granting of credit.

- Concentrations: Concentrations of credit are periodically determined and reviewed.

- Split credits: The attitude toward borrowing from more than one bank should be defined.

- Loan mix: TRL ceilings or percentages for certain types of loans such as installment, real estate, or agricultural must be established.

- Loan pricing: The policy sets forth how proper pricing contributes to the bank's profitability objectives.Loan pricing is an integral part of the funds management plan.The policy considers such aspects of pricing as risk, liquidity, interest sensitivity, depository balances, cost of supervision etc.

3.2.7.Identification of Desirable Loans

The acceptable loans that fulfill the legitimate and productive needs of the market place must be identified.Since it is difficult to categorize all the loans a bank might consider, broad categories of acceptable loans should be described.Because of differences in markets, bank size

and expertise, desirable loans vary considerably from bank to bank.Some examples might include (8):

- Short-term loans to business or agricultural endeavors for the purchase of current assets or payment of expenses, with repayment from conversion of current assets,Such loans should be repaid annually.If they are not, the remaining portion of the loan at the bottom line of the trade cycle should be put on a term-loan basis with appropriate amortization.

- Term loans to businesses or agriultural endeavors, with repayment ability sufficient to amortize the loan in a period acceptable to both the bank and the borrower.

- First mortgage loans salable in the secondary market or which have interest sensitivity characteristics appropriate to the bank's fünd management strategies.

- Installment loans such as home improvement and auto loans for purposes periodically determined by the senior loan officer.

- Single-payment loans to individuals who have substantial relationships with the bank or whose companies do, where the repayment source is readily identifiable and agreed on.

- Loan participations from other banks in which the

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(8) Adamson, Bruce. " Bank Loan Policies / Variations and Changes ", Oklahoma, National Commercial Lending School, Norman, 1976, pp.53-59

borrower meets the bank's credit standards.

- Loans to finance the carrying commodities on a secured basis with appropriate monitoring.

3.2.8.Identification of Undesirable Loans

More general characteristics of undesirable loans include:

- Loans for speculative purposes
- One-shot loans where no longstanding relationship can be developed
- Construction loans without a firm takeout
- Nonamortizing term loans
- Loans to new businesses where the capitalization is below industry standards.

3.2.9.Loan Administration

The loan administration processes should be broadly defined. Items should include guides for:

- Approval process
- Credit files
- Collateral
- Commitments
- Monitoring
- Loan Review
- Problem loan identification and administration
- Foreclosure
- Nonaccrual policy
- Charge-offs
- Review loan loss reserve

IV.RISK MANAGEMENT AT THE TIME OF LOAN APPROVAL PROCESS

The risk inherent in credit and its instruments arises from the circumstances which make for nonpayment of debts when due.Consequently, the credit risk must be recognized not as a vague, general condition to be appraised, but as a tangible set of circumstances in the form of a person or a business entity such as a firm or corporation.In a sense, every individual or firm constitutes a credit risk (9).

Creditors generally seek to avoid the "risky" transactions, for they would spare themselves the losses and complications often resulting therefrom.On the other hand, it is not good business practice to reject all risk.Where no risk assumed and nothing ventured in the extension of credit, business would not be what is today.

One of the main functions of credit management is the analysis of what constitutes the acceptable degree, or amount, of risk in an individual case.They take the form of three questions: First, is the risk sufficiently good to be acceptible at all?.Second, if the risk is satisfactory, to what extent

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(9) Beckman, Theodore N. & Bartels, Robert," Credits and Collections in Theory and Practice", N.Y., Mc Graw-Hill Co.Inc., 1974, pp. 53-54

should credit be granted, i.e., what shall be the credit limit?. Third, under what conditions or upon what terms shall the credit and the extent thereof be granted?. These are the three basic considerations in the mind of the credit grantor as he appraises risk.

4.1. Basic Factors Determining The Credit Risk : " Five C's of Credit "

The principal factors to be taken into consideration in deciding whether or not to grant credit, in what amount, and on what terms and conditions comprise what are commonly referred to in the credit profession as the " five C's of credit " - Character, Capacity, Capital, Collateral and Conditions.

4.1.1. Character

Character comprises those qualities of credit risk which make him want or intend to pay when his debt is due. Credit character and moral character or social reputation are not necessarily the same thing, although they are usually very closely related (10).

Judgement of character must be based upon evidence and the seeking and appraising of evidence is one of the technical jobs of credit management. Perhaps one of the best evidences

(10) Beckman, Theodore N.& Bartels, Robert," Credits and Collections in Theory and Practice, N.Y., Mc Graw-Hill Book Co. Inc., 1974, pp.57-58

of willingness to pay is a consistent record of credit payment.Evidence of paying record is usually obtainable from other creditors, directly or through an intermediary organization.

Other evidences of credit character are found in positions of trust which an individual may hold in business or in social organizations;in the stability of his residence, employment, and business connections; in the extent and nature of his education and cultural development; and in the integrity which may be revealed in a personal interview.

When dealing with business customers, the willingness of the business organization to pay must be determined.In general, the character of small businesses, even when they are corporations, is the same as the character of the individuals who operate them.The corporate identity adds nothing to character if the management is deficient in honesty and trustworthiness.On the contrary, incorporation may indicate a willingness of incorporators to commit themselves for only a certain amounts of debt in a particular venture.This should be recognized in appraising such a risk.The character of a large business organizations, on the other hand, may be distinct from the personal character of its management, for their operations are usually based upon policy rather than upon persons.One would look therefore to evidences of policy in the management, their facilities for record keeping, the

routinization of office functions, and their awareness of the competitive advantages inherent in the taking of cash discounts, in modernization, and other such practices.

4.1.2.Capacity

Capacity in credit signifies the ability to pay when a debt is due (11).Estimation of the capacity, however, is not always simple; it involves several factors.It is primarily a question of earning power, for expenditures and payments almost always depend upon savings.Income alone, however, does not completely reveal capacity,for income may already be so committed to existing debt that a debtor would have no further capacity for credit.Moreover, the capacity of a consumer is effected by his expenditure pattern as well as by his debt.Time also effects capacity, for a credit obligation which one might be able to fulfill in a long period he may be unable to meet in a short time.

The most important evidence of capacity is income; Income, however, must be recognized as the product of other things, which also signifies capacity, such as personal health, education in a profession or skill, age, personality, persistance and stability in employment, disposition to

(11) Seval, Selim."Kredilendirmede Risk Değerlendirilmesi ve Yönetimi", İst., Publications of Pamukbank T.A.Ş., 1989, pp.7-8

economize, resourcefulness, and progresiveness.

The capacity of a business likewise relates to factors effecting income, expenditure pattern, and existing debt. Business income is derived essentially from sales; whatever effects sales determines in some degree the credit capacity of the business.Advertising, salesmanship, store location, floor layout, fixtures and equipment, balance and age of inventory, services offered, competition, trade relations and sources, brands and agencies possessed- these are some of the factors of capacity in a business debtor.Capacity is determined by cost of operation as well as by sales, for the high cost operator is the less able to meet obligations on merchandise purchased on credit.Salaries, utilities, rent, and other items of expense are usually paid first out of income in order to keep the business going; merchandise creditors must take this into consideration in estimating the capacity of a firm to pay for its unpaid inventory.Capacity is influenced also by the existing debt structure of the organization.If debt is high in terms of equity investment, outsiders have claims which may impair capacity under some circumstances.Moreover, high debt of some kinds is accompanied by high interest costs.

4.1.3.Capital

Capital, for credit purposes, is the financial strength of a risk as measured by the equity or net worth of the business.It

is the assurance that a debtor could be made to pay, in the long run, if character and capacity should fail.Capital is that which a creditor might seize as payment for debt. Credit is not extended on the presumption that capital will serve as the means of payment, even when collateral is taken, for a resort to capital usually the means the termination of the business relationship.Credit is granted on the presumption that payments will continue and that subsequent sales will be possible.

The capital of business establishments is usually determinable from their financial statements. When assets are balanced against liabilities, however, a true estimate of capital must take market, rather than book, values of the assets into consideration, and attention must be given to a proper evaluation of all items contained therein for appropriateness of inclusion and for accuracy.

4.1.4. Collateral

Special emphasis is given to collateral as a form of capital which is peculiarly favourable to risk evaluation.However, this instrument should be the last one to be handled.The value of collateral should not be one of the reasons to grant credits, since it is not an instrument for repayment of a credit (12).Collateral comes into scene, whenever the borrower

(12) Seval, Selim. " Kredilendirmede Risk Değerlendirilmesi ve Yönetimi ", İst., Publications of Pamukbank T.A.Ş., 1989, pp.8-9

fails to generate cash from its business operations and by so, is not able to repay the credit amount.

4.1.5.Conditions

Creditworthiness is dependent not entirely upon factors that are inherent in the risk and over which the borrower presumably has control; it is dependent in part upon the economic environment in which the risk exists.

Both the long-run and short-run fluctuations of business must be taken into consideration in evaluating conditions.Some of these may be peculiar to an industry, to an industrial area,to a given geographic area, or to the nation as a whole.A credit executive must, therefore, constantly keep his hand on the pulse of conditions and sense the direction of changes.In a period of rising prices, men with little or no ability may succeed in business, whereas with an adverse change of conditions they could not exist.During a period of falling prices and general deflation, not only is capital often wasted, but even character sometimes undergoes marked changes.

Political as well as economic developments have a bearing upon credit risks.Changing legislation and administrative attitudes, as well as judicial decisions, minimize or enhance risk.

4.2.An Elaboration of Types of Risk Rating Systems

To be meaningful, risk assessment must be stated in some tangible, quantifiable manner.A risk-rating system satisfies this need by forcing a conclusion about the degree of perceived risk in relationship to the rest of the loans in the portfolio.

Every bank employs some form of risk rating, even it appears only in the highly subjective and subconscious daily decisions of its loan officers. Perceived risk is reflected in loan officers' decisions about rate, collateral, and reporting requirements.Ironically, loan officers who are responsible for assessing risk on a daily basis sometimes resist efforts to quantify risk.

Risk rating is an attempt to quantify the perceived risk of loss on every loan or borrower in a portfolio. If consistently applied, the procedure permits comparison of loans and highlights exceptional areas of potential loss.A risk-rating system should be designed to facilitate reporting and statistical analysis.

Risk-rating methods can be placed on a scale varying from highly subjective to almost completely objective. The risk-rating process can be applied to the strengths and weaknesses of each borrower. Or the system can focus on individual loans

of the same borrower differentiating among such elements as collateral, term, purpose, etc.

The system must be consistently applied to avoid changes in ratings caused by changes in the stringency of the system as opposed to real changes in the borrower.The more subjective the system, the greater the potential for inconsistency.

Each bank should establish its own procedure reflecting the expertise of its personnel,the types of borrowing customers, and the availability of the financial data. The system should be relatively simple and understood by both lenders and management. Moreover, lenders should have a hand in the system's development so that they will have a confidence in it.

Assessing risk is an art, not a science (13). In designing a system, the loan manager should avoid the excessively elaborate. The system should differentiate sufficiently between borrowers to provide meaningful statistical data. However, too many classifications are confusing and seek a refinement which is impossible to obtain. A division of risk into five classifications is probably as sophisticated as most systems need to be.

(13)Dickerson, Charles S. ," Current Approaches to Grading Loans ", Philadelphia, Robert Morris Associates, 1987, pp.25-27

Exhibit 4.1 represents a highly subjective risk-rating system which is effective neverthless. Any system can be periodically tested by having lenders and credit personnel review the same loans to determine how divergent their assessments might be. If widely different ratings are applied by different people to the same credit, the system is too subjective and should be refined.

The highly objective of risk rating based on financial statement data is at the other end of the spectrum. A number of different approaches are in use, but most are based on an assignment of weights to different ratios. Risk assessment is boiled down to a single number which can be compared with other borrowers or used in trend analysis. The ratios used generally reflect liquidity, leverage and earnings. Objective systems have the obvious disadvantage of overlooking critical intangible considerations such as:

- Quality of management
- Status of the industry
- Position of products or services in the marketplace
- Quality of financial data

On the other hand, objective systems treat all borrowers in a similar manner. Objective analysis can sometimes remove the blinders of bigness and prestige.

Exhibit 4.1- Subjective Risk Rating System

Class I (highest quality)

A. Businesses with high liquidity, excellent financial conditions, history of stable and predictable earnings, available sources of al-ternative funding, strong management, favourable industrial trends.

B. Loans adequately secured with certificates of deposit, government securities, cash value of life insurance, etc.

C. Individuals have substantial net worth concentrated in highly liquid assets with well-defined primary and secondary sources of repayment.

Class II (good quality)

A. Businesses with most of the characteristics described in class I. However, certain characteristics are not quite as strong, such as more cyclical earnings and less availability of alternative sources of funding in periods of economic distress.

B. Individuals have substantial net worth which may be concentrated in less liquid assets such as real estate or stock in closely held but strong companies. Present and future earnings potential is strong, and the primary source of repayment is readily appearent with an ad-equate secondary source available.

Class III (satisfactory quality)

A. Companies with fair liquidity and a reasonable financial conditions which falls within acceptable tolerances of similar companies.Earnings may be erratic, and satisfactory repayment is expected but not assured under all conditions.Loans are frequently secured by collateral such as receivables and inventory where conversion to cash is difficult and uncertain.Alternative funding sources are normally restricted to competitor banks.

B. Individuals have marginal liquidity and net worth but reasonable earnings with a reliable primary source of repayment.Secondary sour-ces of repayment are less obvious and are restricted to such possibilities as mortgage refinancing.

Exhibit 4.1- continued

Class IV (below-average quality)

A. Businesses with poor liquidity,high leverage, and erratic earnings or losses. The primary source of repayment is no longer realistic , and asset or collateral liquidation may be the only source of repayment.Loans are marginal and require continuing and close supervision by the responsible loan officer.

B. Asset-based revolving credit supplying working capital for an indefinite period.Close monitoring of collateral with sufficient expertise is required.

C. Individuals have no liquidity, marginal net worths and a speculativeprimary source of repayment with no secondary source identified.

D. Loans classified "other loans especially mentioned" by examiners.

E. Loans where the information in the credit file is insufficient to draw any conclusion as to the quality.

Class V (poor quality)

A. Collateral, net worth, and cash flow are insufficient to support the level of the borrowing, and sources of repayment are not readily identifiable.Without constant and intense supervision, the real possibility of partial or full loss exists.

B. Individuals have insufficient net worth or earnings to support the loan.Additional collateral must be obtained, and there is a distinct possibility of the loss.

C. Loans classified "substandard","doubtful" and "loss" by examiners.

Whether or not a grading model is used in assigning a risk score, any bank that spreads financial data should have a system to compute a single risk number.Such a practice reduces massive ratio and other financial data into a single

number.Therefore, comparisons become simple and trend evaluation more revealing.The result of much financial statement analysis is an overwhelming mass of financial data, and analysts can easily miss the forest for the trees (14). However, producing a single number for comparative purposes is no substitute for careful analysis. On the other hand, grading models can highlight trends and problems which in turn call for in-depth analysis.(See. Appendix: Sample Loan Quality Rating Model)

4.3.Degree of Monitoring

Once a loan has passed the approval process, it can not be ignored.During the life of the loan,a borrower's credit quality improves, deteriorates, or fluctuates between these two possibilities.Credit quality rarely remains constant.The loan manager has a challenging task: to monitor diverse borrowers and their credit facilities adequately with the limited resources available.

Although monitoring borrowing customers is expensive, lack of it can produce prohibitive costs.The loan manager must balance these extremes in a manner which controls risk with a minimum overhead.

Monitoring is a overhead factor which should be considered in

(14) Reed, E.W. " Commercial Banking", New Jersey, Englewood Cliffs Prentice-Hall Inc., 1976, pp.143-144

the pricing of a loan.Monitoring is basically a fixed expense and diminishes proportionately as the size of the loan increases.Obviously, heavy monitoring of small loans is unprofitable, regardless of pricing established.Loan managers should establish braek-even points on loans and encourage loan officers to refer smaller loans to the appropriate area in the bank where they can be profitably administered.

Loan managers should also establish guidelines for the degree of monitoring they expect in relationship to the risk of the loan.These guidelines could be expressed as risk grades.See Exhibit 4.2 for an example of monitoring according to risk categories expressed earlier.

Exhibit 4.2- Guidelines for Monitoring Following Risk Classification

Risk Rating	Frequency of Financial Data	Suggested Additional Monitoring
Grade I- Highest quality	Annual	Annual plant visit, annual abbreviated loan review.
Grade II- Good quality	Annual/semi-annual	Annual plant visit, annual abbreviated loan review.
Grade III- Satisfactory quality	Quarterly	Semiannual plant visits, annual factory quality complete loan review,semiannual or quartely supplemental reporting on receiveble aging, inventories,etc.

Exhibit 4.2- continued

Grade IV-	Quarterly/	Semiannual or quarterly plant Below average monthly visits, semiannual loan review, quality quarterly or supplemental re- porting, quarterly status reporting to management.
Grade V- Poor quality	Monthly	Quarterly or monthly plant visits, quarterly loan review,monthly supplemental reporting, quarterly or monthly audits, and direct verification of re- ceivables,collateral under control of bank, monthly status reporting to management.

4.4.Monitoring of Changes in Risk

The loan officer is normally the first person to detect changes in credit risk.Consequently, the loan officer must be fully responsible for quickly reporting any changes in risk to the loan manager -either risk improvement or deterioration. Improvement can mean less monitoring and a commensurate reduction in overhead.

The loan manager must establish procedures so that all changes in risk are reported.In a computerized system, a sensitivity

report can be generated for the loan manager whenever a risk code is changed.

The circumstances causing the change in risk rating must be discussed and new monitoring procedures must be established, if required.If monitoring is properly accomplished, loan officers can concentrate their efforts on riskier loans. Management, in turn, is involved only in the exceptionally risky credits.By this process of exception management, loan managers can focus their talents where they produce the best results.

4.5.Monitoring Methods to Detect the Credit Risk

In establishing monitoring requirements, the focus should be on those aspects of repayment where vulnerability is the greatest.Because each borrower has different characteristics and levels of sophistication, the loan manager must be highly creative and imaginative in developing procedures which are both realistic and practical.Some or all of the following monitoring methods can be adapted.

4.5.1.Financial Statements

The most obvious means of monitoring a borrower's progress is through periodic examination of financial data.Requirements for the frequency of interim financial statements are

perceived risk. Frequently, lack of receipt of interim data is the biggest tip-off to developing problems(15). The loan manager must ensure that adequate systems exist to report past-due financial information.Many loan officers consider reviewing financial statements the only means of monitoring a borrower and when the statements are unavailable, they do nothing.However, other means of effective monitoring can be developed.

4.5.2. Tailor-Made Reporting

When dealing with small businesses where good accounting assistance may be less available, loan officers frequently complain that they are fortunate if their borrowers prepare tax returns, much less interim financial data.The loan manager can overcome this common problem by excersing some imagination in the loan approval process.The key factors effecting repayment can be isolated, and specific reporting tailored to track these factors (16).

For example, accurate interim financial data are frequently difficult to obtain from restaurant owners.Bank loans to restaurants are generally for equipment purchases and leasehold improvements and are repayable on a term basis

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(15) Seval, Selim."Kredileri Tahsis ve İzleme İlkeleri", İst., Publications of Pamukbank T.A.Ş., 1988,p.19
(16) Seval, Selim,"Kredileri Tahsis ve İzleme İlkeleri", İst., Publications of Pamukbank T.A.Ş., 1988,p.4

from earnings.The only other major class of creditors other than those financing fixed assets would be the trade which finances fast-turning current assets.

Earnings that are sufficient to cover fixed expenses and debt amortization depend highly on sales volume.The loan officer and the restaurant borrower can easily compute a break-even volume.Assuming stable margins, which is a big assumption, the loan officer can track a restaurant borrower by having two figures reported on a monthly basis: sales volume and trade debt.

Sales volume can be verified against the deposits to the account and compared with the volume necessary to break even and amortize the bank's loan.Trade debt should be resonably consistent and proportional to the volume.Any decrease of volume below the break-even point and an increase in trade debt indicate a problem demending the loan officer's attention.

Although no substitute for complete interim financial data, the receipt of these two numbers per month could reasonably well monitor this type of loan.

4.5.3.Plant Visits

Well-planned and conducted plant visits are an excellent means to monitor credit.In the approval process, the number and

timing of visits should be established, with a brief discussion of the specific objectives of the visit beforehand.

A plant visit provides a good opportunity for reviewing certain intangible aspects of a borrower's operation.As an example, the repayment of a term loan depends on a borrower's ability to generate earnings consistently in changing industry and market conditions.The loan officer should question company management on what changes it foresees in the environment and how it plans to meet these challenges.Through plant tours the loan officer gains valuable insight into the depth of management, its turnover, quality of products, and housekeeping. The loan officer should summarize the results of the visit in a comment in the credit ile.

4.5.4.Special Investigations

Loan officers can initiate periodic spot checks which can also provide effective monitoring, especially when it supplements other methods such as interim financial data.Much of this spot-checking can be delegated to the credit department or secretarial staff.Examples of monitoring which can be accomplished within the bank include:

- Credit checks
- Lien searches
- Deposit levels
- Overdraft frequency

4.5.5.Compliance with Loan Agreements

Written term loan agreements generally have two purposes (17):

1.Provide for an event of default and acceleration in the case of nonpayment or the violation of agreed-on-covenants.

2.Provide mutually agreed-on terms under which the credit will be extended.The term loan agreement is the marriage contract between borrower and lender and sets forth the rights and responsibilities of both parties.

A breech of a term loan agreement is a violation of the mutual understanding under which the credit was granted and should not be taken lightly.Compliance with the agreement must be monitored, and the loan officer should react to any violations.

4.6.Follow-up Techniques

It should be ensured that ongoing monitoring procedures are agreed on and established when a credit is approved.These procedures must reflect the risk involved and focus on the key elements that could affect repayment.

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(17) Bukowski, Robert H., " Written Loan Policies: Can They Help ?", U.S.A., Burroughs Clearing House, July, 1976, pp.35-38

To ensure compliance with agreed-on monitoring, the loan manager must have a system that tracks required monitoring and reports exceptions.Loan officers must realize that they commit themselves to the agreed-on monitoring at the time of loan approval.Consequently, it is imperative that monitoring requirements be made realistic.For example, it is pointless to require monthly financial statements of a restaurant if the owners can not produce them.On the other hand, it would make little sense to require in-depth analysis by the credit department of monthly financial statements on credits where little risk is involved.The systems to ensure follow-up are stated below.

4.6.1.Tickler Systems

Once the monitoring requirements have been established, they must be incorporated into a tickler system to ensure follow-up.These systems are normally administered by loan accounting or the credit department.The date of excepted receipt should be recorded and not the date of the required item.As an example, March 31 might be recorded as the expected date of receipt of a calendar year financial statement.

4.6.2.Past-Due Reporting

Under the philosophy of management by exception, the loan manager concentrates his or her energies and talents on

exceptional problems or opportunities.As part of the routine department meeting, the loan manager reviews such exceptions as past-due maturities on notes and other delinquent items relating to monitoring.From the tickler system, exception reports relating to monitoring are produced.Past-due items relating to loan monitoring are normally called technical exceptions.Excessive technical exceptions frequently indicate poor credit administration by the loan officer involved.To correct the situation, some objectives must be given to loan officer and a time limit to reduce the technical exceptions. Attaining these objectives can be part of the performance appraisal process.

4.7.Other Uses of Risk Rating

Risk rating has many other uses beside establishing monitoring requirements.The creative loan manager can use it as a management tool to improve overall results. Moreover, effective data processing systems can provide the loan manager with information related to the following four areas.

4.7.1.Portfolio Management

Risk rating provides a means of dividing a portfolio into perceived risk classifications.Charging historical stratifications provide lenders, management, and the board of

directors with a visual image of trends in risk and their relationship to changing economic conditions and other factors.Management can establish objectives for risk and monitor results.The weighted average risk of the portfolio can be computed and tracked as an easy means of monitoring risk trends through that figure. Commitments can be monitored to determine any correlation between usage and risk.

4.7.2.Pricing

Pricing and risk should bear a direct correlation for two reasons:

1.The higher the risk of loss, the greater the provision for loan loss expense.

2.The higher the risk, the more loan monitoring is required which results in a higher allocation of overhead.

Loan management should be certain there is a reasonable relationship between pricing and risk and scrutinize any exceptions.

4.7.3.Personnel Evaluation

The state of perceived risk in a portfolio results from a number of different factors.They include; economic conditions, market in which the bank operates, marketing strategies, poor judgement.

As risk increases in a portfolio, the level of lending expertise must increase(18).Some banks find a logical market in companies that need asset-based secured lending on a revolving basis.This marketing strategy results in a riskier portfolio which can be justified by the profit potential. However, well-trained, experienced, and seasoned lenders are required to administer this kind of portfolio.The loan manager should periodically assess the risks of the portfolio and be sure the lending staff is equipped to handle them.

4.7.4.Reporting to Senior Management and the Board of Directors

If accurately maintained, risk rating provides a means of reporting trends to senior management and the board of directors.The timely detection of adverse trends provides an opportunity to react to problems as they begin.Analysis of risk-rating trends can also provide an evaluation of the loan loss reserve.

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(18)Seval, Selim, " Kredilendirmede Risk Değerlendirilmesi ve Yönetimi ", İst., Publications of Pamukbank T.A.Ş., 1989, p.6

V. RISK MANAGEMENT AND ASSESMENT AFTER THE LOAN APPROVAL PROCESS: LOAN REVIEW

5.1.Definition of Loan Review

Considerable confusion exists over the meaning of loan monitoring and loan review, and many banks use the two terms interchangeably.In this study, however, ongoing loan monitoring refers to a tactical process of tracking -accomplished by the responsible loan officer- a borrower to see that the loan is repaid.The loan officer is monitoring conditions which could signal a deterioration in the borrower which would require a change in procedures to protect the loan.

On the other hand, loan review is a strategic process-accomplished by an objective third party- which attempts to assess the portfolio as a whole.Although credit quality is an extremely important part of the assessment of the portfolio, other elements are also considered.In accomplishing its mission, loan review examines individual credits or components of the portfolio.While examining individual credits, loan re-view must never lose sight of the strategic nature of its function.

Effective loan review is also an important tool in the hands of the board of directors and the executive personnel of a

bank.As a vital element of management, loan review can be an offensive , as well as defensive, weapon.It can recommend means of achieving corporate objectives.If loan review is regarded as only examining credit quality,it will never achieve its full potential and become a dynamic management process.

5.2.Objectives of Loan Review

If management is to assign loan review a truly strategic mission, those reponsible for the function must understand the goals of the organization and how their accomplishment can be assisted.Neverthless, the objectives of loan review may differ from bank to bank.In establishing a mission statement for loan review, management should consider the following seven areas.

5.2.1.Credit Quality

By assessing the risk of individual credits and then the bank's portfolio as a whole, loan review offers an opinion an the ultimate collectibility of the portfolio.Rendering such an opinion can require some courage and some risk taking by the reviewers. However, that opinion is extremely helpful to the board of directors, to the management and to the lenders.

5.2.2.Adequacy of Loan Loss Reserve

The adequacy of the loan loss reserve is based on management's

continuing evaluation of a number of factors including (19):

- Historical loan loss and recovery expense
- Projected loan losses and recoveries
- Review of problem loans
- Overall portfolio quality
- Current and anticipated economic conditions
- Ability of the bank to replenish reserves through earnings

Loan review should evaluate how the adequacy of the loan loss reserve is determined and ensure that it is a logical, comprehensive process.The size of the reserve itself is influenced by external factors other than credit considerations.These factors are what the marketplace, peer groups, and regulators consider adequate.

5.2.3.Identification of Trends

The loan review function should examine such factors as the quality of loan administration and personnel, concentrations of credit, and vulnerability to economic conditions.From this examination, loan review should attempt to project trends and isolate potential problem areas or unique opportunities.

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(19)Dickerson, S.Charles, " Current Approaches to Grading Commercial Loans ", Philadelphia, Robert Morris Associates Publications, 1987, pp.15-16

5.2.4.Identification of Problems

In examining particular loans in a portfolio, loan review will undoubtedly encounter some problem loans or loans with the potential,to develop problems.Potential problem areas would include concentrations of credit which are particularly vulnerable to economic cycles.Loan review should isolate these problems and recommend corrective action.Assuming the management accepts the recommendations, loan review should follow-up periodically to be sure the recommendations are carried out.On the other hand, if loan review points out problems that were undetected or recommends action not already considered, there may be serios deficiencies in loan administration. An effective loan review function can go beyond identifying problem loans by examining why the problems occured. Such an examination focuses on the managerial aspects of loan administration. By isolating potential weaknesses in loan management as well as potential problem credits, loan review becomes an extremely dynamic and vital tool of the management.

5.2.5.Adherence to Loan Policy, Laws and Regulations

Along with the assessment of compliance to policy, loan review should periodically examine the loan policy itself and determine whether it is adequate and realistic.Loan review

should not hesitate to recommend policy changes where necessary.

5.2.6.Profitability and Funds Management Objectives

In evaluating a portfolio, loan review should address the achievement of profitability and funds management objectives. Appropriate measurement systems must be in place to gauge results and trigger corrective action where necessary.By evaluating results and offering effective recommendations, loan review contributes significantly to bank profitability.

5.2.7.Effectiveness of Loan Administration and Personnel

Ultimately, the quality of a portfolio and its profitabilty to the bank are a function of the quality of loan management. However, in the short run, the quality of results and the quality of management may not coincide.For example, a weak loan administration can produce reasonable results in a favourable economic and competitive environment.In times of adversity caused by recession, competitive changes, and unfavourable industry conditions, loan quality and profitability problems can surface.

Loan review must assess the quality of loan administration and the effectiveness of the personnel.It must recommend methods of improvement, if needed.In assessing loan management, the

review should focus on the traditional tasks of management and draw conclusions on the process of planning, organizing, directing and controlling and the results achieved. In assessing the process of loan administration, the review should focus on the effectiveness of loan policy, loan approval systems, ongoing loan monitoring, problem loan administration, and loan review itself.

5.3.Ingredients of Loan Review

To be effective, loan review must have three ingredients:

- Management support: Loan review is a management function reporting to the highest level, the board of directors. Without the support of top management, the loan review effort is doomed to failure.
- Objectivity: The loan review function must be objective which can require considerable courage and support.
- Credibility: To accomplish its mission, the loan review function must have a high degree of credibility with top management, loan managers, and the lending staff.A good loan review team acts as a consultant , identifying problems, and recommending solutions.

5.4.The Place of Loan Review Function in Organizational Chart

In placing loan review in the organization chart, management

must consider where it can best act objectively, communicate at all levels, maintain support of management, and preserve credibility.As a practical matter, the choice of where to locate loan review can be simplified to either inside or outside the lending function.Ultimate placement varies with the size of the bank, available experience, and personalities involved.

5.4.1.Within Lending

If loan review is lodged within the lending function, it normally reports to the senior loan officer.Depending on the size of the bank, it is either an entity in its own right or is a mission added to the duties of the credit department.

The advantages of reporting within the lending function are immediately apparent.The senior loan officer is in the best position to understand loan review and ensure its support and credibility.The lending function provides a pool of trained talent for loan review so communications between it and lenders should be strong.

The disadvantages are just as apparent.In this structure, loan review can not be called independent, at least in an organizational sense.

5.4.2.Outside Lending

The obvious advantage is the independence gained and presumably greater objectivity.Since independency is the most vital element of loan review function, the best way should be to locate it outside lending establishing credibility and support within organization. The disadvantages can be less access to a pool of talent, poor communication with the lending function and loss of credibility.

5.4.3.External Examination

Examination by external supervisory agencies can provide a supplementary appraisal of bank's lending function.However, in many instances, its scope is not as broad as the objectives of loan review previously outlined. Neverthless, outside examination complements a good loan review program and provides insight into its effectiveness. However, it should never be a substitute for an internal loan review program.

5.5.Frequency of Review Based on Risk

If an effective loan monitoring system is in place, loan officers will be tracking their borrowers with a frequency related to perceived risk. One purpose of loan review is to

ensure that loan monitoring process is adequate and effective. Through selection of representative credits in a portfolio, the loan review function can determine if the process is generally in agremeent with the perceived risk and the degree of monitoring being applied. Where differences exist, loan review will recommend corrective action. As with loan monitoring, loan review establishes its frequency based on risk.

5.6.The Methods of Loan Review on the Base of Individual Credits

Although the purpose of loan review is to arrive at conclusions concerning a portfolio as a whole, carefully selected individual credits must be examined to support these conclusions.However, loan review, in many banks, does not go beyond the examination of individual credits because such examination is the sole purpose of loan review.The strategic mission of evaluating a portfolio as a whole and its management must not be forgotten.

In looking at individual credits, loan review focuses on different issues that are important to the appropriate supervision of a particular loan.However, when summarized, these issues give valuable insight into the operation of the entire portfolio.Loan review should address the following five

specific issues whenever it examines individual credits.

- Credit quality
- Documentation
- Liquidation value of collateral
- Pricing and funds management objectives
- Compliance with loan policy

5.6.1. Credit Quality

The determination of credit quality is one of the most vital functions of loan review.Credit quality is basically the expectation of the risk of loss or the expectation of the collectability of a loan and, ultimately, a portfolio.In examining credit quality, loan review must answer three questiones.

1. Is the risk different from that perceived by the lender?
2. What is the probability of repayment in accordance with terms?
3. Is ongoing monitoring adequate?

In examining a credit, loan review must either confirm the existing risk rating or change it and support that change.Loan review should have the authority and responsibility to challenge existing risk ratings;any differences between loan review and lenders should be examined.

In assessing ultimate collectibality, review personnel should state their opinions on the probability of repayment in accordance with the terms agreed on between borrower and lender.

While assessing risk, loan review should also determine if loan monitoring procedures are adequate.Where necessary, loan review should recommend additional monitoring procedures and other protection such as collateral and guarantees.

5.6.2.Documentation

Loan review is in a good position to examine documentation.It can point out errors so that the protection expected in the loan approval process is actually in place.Additional protection may well be recommended for deteriorating credits.

5.6.3.Liquidation Value of Collateral

Collateral is only needed at one point in a borrowing relationship:when it must be liquidated to repay a loan. Therefore, the only relevant value to apply to collateral is its liquidation value.Book values from financial statements prepared under "going concern" concept of generally accepted accounting principles are totally meaningless.Loan review personnel must think in terms of what the collateral will bring

as collected or on the auction block.Liquidations normally occur under adverse economic conditions which must also be reflected in the value of collateral.

Loan review personnel must know what is entailed in liquidations.Lenders without actual liquidation experience tend to be optimistic concerning what collateral is worth on the block.Loan review must provide an objective third-party opinion so that realistic loan-to-collateral relationships are maintained.

5.6.4. Pricing and Funds Management Objectives

The objective of a pricing strategy is to obtain a gross yield sufficient to meet profitability standards (return on asset goals) after covering the cost of funds, expenses related to risk,and allocated over-head.This last item is noninterest expense less noninterest income (See the Exhibit 2.1 for further information).

Pricing decisions are made more complex because many different factors make up the yield and expenses related to an individual loan.For example,yield can be determined by such factors as rate, fees, and net deposits available after float, reserves, deposit insurance, earnings credit, and activity costs.The costs relating to each loan consist of:

- Cost of funds
- Cost of credit, interest, liquidity, and economic risks
- Cost of supervision

5.6.5. Compliance with Loan Policy, Laws and Regulations

Through the examination of individual credits, loan review is in a good position to form an opinion concerning adherence to policy and can relay this opinion to the board.Loan review personnel must have a complete understanding of the loan policy as well as of laws and regulations governing lending practices.

5.7.Evaluation of Portfolio As a Whole

By assembling and examining all the findings completed during the review period, the reviewer begins to understand the composition of the portfolio as a whole.Loan review can determine what amount and percentage of the portfolio was reviewed, as well as the number and percentage of borrowers.If cut-off points excluded large numbers of borrowers representing smaller outstandings, some random or intuitive sampling can be applied.This type of analysis gives the reviewer some idea of the scope and integrity of the entire portfolio.

5.7.1.Assessing Portfolio Administration

Through an examination and compilation of the cover sheets, the loan review should determine how many risk codes were changed and the amount represented.A certain amount of disagreement always exists on the rating of credit, but if the number of loans and amount are significant, it can indicate that loan managers are not identifying problems soon enough.An analysis of what a loan review considers incorrect risk ratings, therefore, provides an indication of the accuracy of the perceived risk of the total portfolio, as well as management's ability to identify problems.

Loan review should also examine management's projections for loan loss and recovery and test them for reasonableness. Periodically, actual experience should be compared with the projections.If recommendations have been made and accepted, loan review should follow-up to determine to what extent they have been implemented.

In assessing documentary procedures, loan review should determine whether adequate procedures are in place to monitor technical exceptions.If technical exceptions are excessive, corrective action is needed.Credit and collateral files should also be reviewed as indicators of lending proficiency.

5.7.2.Portfolio Trends

As an independent third-party observer, loan review often spots trends in its daily administration.Loan managers, who are loaded with data and conditions of information overkill, can miss important developing trends.Loan review should chart significant indicators and periodically share the results with loan management and the board of directors.Some of the most significant indicators to track include:

- Risk rating
- Stratifications or average weighted risk
- Classified loans to total loan ratio
- Concentrations
- Loan losses and recoveries
- Loan loss provision
- Reserve for loan losses to total loan ratio
- Delinquencies
- Other real estate, nonaccruals, and renegotiated loans to total loan ratio
- Earnings data
- Marketing data such as balance totals and number of borrowers.

VI. CONCLUSION

Like many other professions, banking has become more complicated over the past decade.A number of trends seem to have converged to bring about this result.

- Mergers and acquisitions within the industry have begun to accelerate.
- Great diversification of product lines offered by individual institutions or their holding companies has taken place.
- Number of banks has increased markedly.
- Political and economic uncertainity characterized this period.
- Relative instability in bank earnings, as well as generally lower capital levels, has occured.
- Elected officials and regulatory authorities have reacted by proposing or installing heightened reporting requirements.

All these developments have resulted in establishment of effective and efficient risk defining and measurement systems.Bank management is demanding more detailed information about the composition of loan portfolio, its overall quality level, and the identification of areas containing extraordinary risk.One of the critical factors in meeting these demands for more sophisticated information is a loan classification system which reflects the portfolio condition with greater accuracy.Loan quality ratings can no longer be

determined solely through the use of subjective judgement, they must be determined by objective analysis using an established methodology (See.Appendix for a sample loan quality rating model).

There is a widely accepted rule in banking sector on the credit implementation process.This common rule can be summarized in one sentence that is " It is impossible to eliminate all the risk involved in credit implementation process, however risk can be minimized,if it is well-managed". So management must decide how much risk it is willing to take and what rewards it expects in return.

Risk in credit implementation process can be defined as the probability of non-payment of a cash credit in its due time and conversion of a non-cash credit to cash-credit which becomes uncollectible.

There is always a risk encountered in credit policy, even if the borrower is one of the reputable and sound companies of the country, risk still exists.If the risk is not previously defined and is unknown, there normally arise two courses of action, either take or averse it. Both way can produce undesirable results for the parties involved under uncertain conditions.On the other side, it would be easy to manage and control risk when we well define and measure it.By this way,

it would be possible to have a portfolio with minimum risk perceived and desired profitability.

In Turkish banking system, there are some misconceptions developed by loan officers about the credit risk.When the loan officers are confronted with a problem loan for which there exists a collateral sufficient enough to cover the cost of the credit disbursed, they believe that the credit amount will be collectible in any case.However this defense mechanism makes itself unvalid, because the credit becomes a riskier one when it is not paid on its due time.And that credit now develops into a non-performing loan that is collectible either by taking legal action against it or by converting collateral into cash.

In order to have an efficient risk management system, there should be established a well-defined infrastructure and proved expertise level in Turkish banking system.However, Turkish banking sector has not performed a succesful developing trend in credit implementation process up to this time.The main indicator of this is the high-standing of non-performing loans of banks in Turkey which constitute an unneglectible portion of total loans.The ratio of non-performing loans to total loans is expressed in terms of percentages, whereas it has been in thousands in European banks.That is the indicator of some existing deficiencies in Turkish banking sector which can not totally assigned to the companies credited or the

prevailing economic, social and political conditions of Turkey.

The other main problem existing in Turkish banking system is to not have the functions of credit approval and credit monitoring and review functions seperate from each other.

The loan implementation principles discussed in this thesis, of course, would not be directly applied to the banks in Turkey.However, these principles can be adopted and internalized in a way that fits to the standards and objectives of a bank regardless of their size and expertise area.

Turkey are planning to enter into EEC in next years.The banking sector will be prone to reorganization like other sectors when the integration with EEC took place.The implications of the reorganization will also be seen on the credit implementation processes and on the management policies and philosophies as well.

If Turkish banking sector is let to develop internally, or only adopts the adjustments imposed by legal authorities, then there will only be a little progress realized in a longer

time. Since Turkey has no other developed financial market, a significant part of its economic development rests on banking sector.By the way, what the bankers can do should be to set more sophisticated banking system, to lean forward to catch the banking level of developed countries and, to support our economic development by using our scarce resources in efficient ways.

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APPENDIX

SAMPLE LOAN QUALITY RATING MODEL

USE & PURPOSE OF THE LOAN

- Well-defined purpose
  (25 points)

- Not well-defined purpose or used out of purpose
  (15 points)

RISK & COLLATERAL

- Very excellent profitability and financial structure. No need for collateral.
  (30 points)

- Loans adequately secured with certificates of deposits and government securities
  (24 points)

- The presence of adequate secondary source
  (18 points)

- Loans secured by collateral such as receivables and inventory where conversion to cash is difficult
  (12 points)

- No collateral identified or insufficient collateral
  (6 points)

TERM & REPAYMENT SOURCE	FINANCIAL STANDING
- Short-term:Well defined primary source of repayment (30 points)	- Very well structured accounting system and excellent capital structure (35 points)
- Long-term:Well-defined primary and secondary sources of repayment (25 points)	- Strong capital structure and sufficient cash flow (25 points)
- Short&Long-Term:Primary source of repayment is readily appearent with an adequate secondary source available. (20 points)	- Only presence of correct basic financial statements (20 points)
- Indefinite repayment period, primary and secondary sources of repayment is insufficient there are delays in interest payments. (15 points)	- Current financial statements, however insufficient cash-flow and and misleading financial figures.Need for additional analysis. (15 points)
- Undefined primary and secondary sources of repayment (5 points)	- No financial figures available or continuous period's loss (5 points)

DOCUMENTATION	CREDIT QUALITY & INFORMATION FLOW
- Adequate and complete documentation (25 points)	- Excellent credit quality, full reporting and updated information (20 points)
- Some exceptions in documentation (20 points)	- Adequate information is available, however is not updated, but there is a positive information about co-signer. (16 points)
- Collateral which is not in favour of bank, e.g. missing signatures on it. (15 points)	- Information is contradictory and not updated.There is no perfect information about co-signer. however past relations are well. (12 points)
- Present value of collateral is not sufficient. (10 points)	- Incomplete reporting and information flow (8 points)
- Credit relationship is not defined. (5 points)	- No firm evaluation report exists or credit report is negative.Past relations are not well. (4 points)

PRICING

- Actual return is consistent with the expected return. (10 points)

- Actual return is below the expected return, however the quality of the company and deposit balance are very satisfactory. (7 points)

- Actual return is below or over the expected return and the quality of the company and deposit balance are not satisfactory.

DEPOSIT & BANKING SERVICES RELATIONS

- The company utilizes all the banking services offered. (10 points)

- The company partially utilizes banking services offered. (7 points)

- The company does not utilizes any additional banking services. (3 points)

CLASIFICATION ACCORDING TO TOTAL POINTS

RISK CLASS	RISK GRADE
A	500 - 450
B	449 - 400
C	399 - 350
D	349 - 300
E	299 - 250
F	249 and under

WEIGHTS ASSIGNED TO ANALYZED FACTORS

ANALYZED FACTORS	TOTAL SCORE	%
USE & PURPOSE OF THE CREDIT	40	8
RISK & COLLATERAL	90	18
TERM & SOURCE OF REPAYMENT	95	19
FINANCIAL STANDING	100	20
DOCUMENTATION	75	15
CREDIT QUALITY & INFORMATION FLOW	60	12
PRICING	20	4
DEPOSITS & BANKING SERVICES RELATIONS	20	4
	500	100

EXAMPLE: Below, you will find the scores of the " X " company evaluated on the basis of loan quality rating model just explained above.

Analyzed Factors	Scores of " X "
1.Use & Purpose of the Credit	25
2.Risk & Collateral	18
3.Term & Source of Repayment	20
4.Financial Standing	25
5.Documentation	20
6.Credit Quality & Information Flow	16
7.Pricing	7
8.Deposit & Banking Services Relations	7
	138

$$\text{COEFFICIENT} = \frac{\text{TOTAL CLASSIFICATION SCORE}}{\text{TOTAL HIGH SCORE}} = \frac{500}{185} - 2.7$$

SCORE OF COMPANY " X " * COEFFICIENT = 138 * 2.7 = 373

RESULT: THIS CREDIT BELONGS TO " C " GROUP.

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Dokümantasyon Merkezi

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