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## Relationship between Risk Types and Risk Management in Banking

### Bankacılıkta Risk Türleri ve Risk Yönetimi İlişkisi

#### ABSTRACT

Banks fulfill important functions in an economy in the fields of trading markets, operating businesses, growing the economy, developing foreign trade and implementing long-term economic policies. In this context, banks not only fulfill important financial functions but also have important roles in the efficient development of the economy, in achieving the goals of businesses, in making new investments, and in ensuring the sustainability of investments made. For this reason, public or private banks must be able to foresee possible risks, the legal infrastructure in this regard must be harmonized by public institutions and the necessary corrective measures must be taken in cooperation with the relevant parties. In bank-related transactions, the protection of banks against risks, their profitability and the precautions to be taken are of great importance in order to provide the most appropriate and economical type of loans to the applicants. Therefore, this study; was planned with the thought that scientific examination of the issues related to risk risk types and risk management relationships could be beneficial to researchers, businesses, public institutions and related parties.

**Keywords:** Banking, Liquidity, Risk Types, Risk Management.

#### ÖZET

Bankalar bir ekonomide piyasaların işlem görmesi, işletmelerin faaliyetlerini yürütmesi, ekonominin büyümesi, dış ticaretin geliştirilmesi ve uzun dönemli ekonomi politikalarının yerine getirilmesi alanlarında önemli işlevleri yerine getirmektedir. Bu bağlamda bankalar sadece finans açıdan önemli işlevleri yerine getirmemekte, aynı zamanda ekonominin verimli bir şekilde gelişmesinde, işletmelerin amaçlarını gerçekleştirmesinde, yeni yatırımların yapılmasında ve yapılmış yatırımların sürdürülebilirliğinin sağlanmasında önemli rollere sahiptir. Bu nedenle kamu veya özel bankaların, muhtemel riskleri öngörebilmeleri, bu konudaki yasal altyapının kamu kurumları tarafından uyumlu hale getirilmesi ve gerekli düzeltici önlemlerin ilgili tarafları işbirliği ile alınması gerekmektedir. Banka ile ilgili işlemlerde müracaatçıların en uygun ve ekonomik türden kredileri sağlayabilmeleri için bankaların risklere karşı korunabilmesinin, karlılıklarının ve alınacak önlemlerin büyük önemi vardır. Dolayısıyla bu çalışma; risk risk türleri, risk yönetim ilişkisi ile ilgili konuların bilimsel olarak incelenmesinin, araştırmacılara, işletmelere, kamu kurumlarına ve ilgili taraflara yararlı olabileceği düşünülerek planlanmıştır.

**Anahtar Kelimeler:** Bankacılık, Likidite, Risk Türleri, Risk Yönetimi.

#### 1. INTRODUCTION

The main purpose of business management in the banking sector is to increase the value of business assets owned by business owners. Achieving this goal requires taking some risks. Risks faced by the financial sector; can be listed as interest risk, market risk, credit risk, risks arising from off-balance sheet elements, technology and operational risks, exchange rate risk, sovereignty or country risk, liquidity risk and bankruptcy risks (Ertürk, 2010).

Banking risks are the situation where savers rush to banks to withdraw their deposits due a loss of trust in the financial system (Seyidoğlu, 2001). However, bank runs are the result rather than the cause of problems in the system. The most important reasons for these crises are; unstable macroeconomic structure, insufficient legal regulations, lack of effective supervision in the banking sector, disruptions in the payment system, unreliable financial infrastructure elements and the lack of the necessary credit culture in risk management (Erdönmez, 2001).

One of the main problems of banks is that they achieve higher profits when greater risk costs are incurred.

Most bank assets are not liquid and bank assets consist of loans that cannot be converted into cash in a short time. However, the bank's commitment to convert its deposits into cash when requested does not always result as expected. This problem creates liquidity risk, and changes in market interest rates and exchange rates cause a loss of capital. Undertaking the risks thus incurred is part of a bank's economic functions. In this context, banks that cannot perform to keep these risks as low as possible face bankruptcy at any time (Parasız, 2000).

## **2. RISK IN BANKING**

### **2.1. Exchange Rate Risk**

Exchange rate risk refers to the losses banks may incur due to changes in the value of their foreign currency assets due to changes in exchange rates (Kurbanaliev, 2016). Exchange rate risk is one of the most frequently encountered financial risks in financial markets. Companies are exposed to various financial risks depending on the types of inputs they need to continue their operations and differences in their balance sheet structures or cash flow statements. The increase in risk depends on the current economic conditions, the liquidity of the company, its capital structure and the risk-taking status of investors (Saltoğlu, 2020).

Especially importers, exporters, speculators and investors make transactions in foreign exchange markets. The low cost of foreign exchange storage and the stability and standards of foreign exchange make the foreign exchange market the center of speculative transactions. The reason behind the constant change in the price of exchange rates in the short term is that foreign currency easily allows capital movements between countries. Banks operating in the foreign exchange market to carry out the international transactions of both their individual and corporate customers are still exposed to foreign exchange risk when they do not hold the same amount and type of foreign currency in the assets and liabilities of their balance sheets (Bulut, 2005).

### **2.2. Interest Risk**

One of the policies that banks can implement against interest rate risk is to protect against interest rate risk by making maturities as equal as possible. Although this method seems to be the most effective method to eliminate interest rate risk, it is almost impossible to implement. Due to the nature of their business, banks are financial intermediaries that generally provide long-term loans rather than low-term resources. Banks' efforts to equalize the maturities of their assets and liabilities may negatively affect their profitability (Ertürk, 2010).

Interest rate risk is the risk the bank is exposed to due to movements in interest rates, depending on its financial situation. These risks can be a significant driver of profitability and share value growth. Excessive interest rate risk can pose a major threat to bank income and capital structures. Changes in interest rates also affect the fundamental value of bank assets, liabilities and off-balance sheet instruments. This is because the present value of future cash flows may lose value as interest rates change (Aydm, et al., 2010).

### **2.3. Credit Risk**

Credit risk is the situation where the finance provided by banks cannot be collected partially or completely. Credit risk in the banking sector may arise from both the balance sheet balances of banks and the banking sector's relationship with macroeconomic variables. In research conducted in the banking sector, non-performing loans are generally accepted as an indicator of credit risk. Non-performing loans are one of the important factors affecting bank balance sheets and profitability of banks. Analyzing the factors affecting this variable is guiding the banking sector. Determining the macroeconomic factors that cause the increase in non-performing loans, which are considered risk indicators in the participation banking sector, becomes important for the stability of these banks (Özçim and Kaya, 2021).

Bank credit risks may occur when both principal and interest cannot be collected and the cash flows promised by the purchased securities cannot be fully received. In other words, credit risk is a risk that occurs when banks do not comply with the agreements made with their customers and do not fulfill their obligations partially or completely. Interest rate, which is one of the reasons that increases the credit risk in traditional banks, is defined as dividend risk within the participating banks system. In addition, it has similar risks to traditional banks in terms of exchange rate risk, market risk and credit risk (Al-Wesabi and Ahmad, 2013).

In addition to their domestic resources, banks generally facilitate the financing of large-scale loans domestically by providing long-term and low-cost resources through syndicated loans from international markets and using these resources as loans. A syndicated loan can provide long-term and high-amount loans to a bank by forming a consortium with the aim of sharing the credit risk by a group of banks or financial institutions, where communication and cash flows between the lenders and the bank requesting the loan are provided by a leading bank with common documents. However, in unstable periods, failure to pay long-term debts on time can pose great risks for banks (Güzel, 2021).

#### **2.4. Liquidity Risk**

Liquidity risk is one of the most common risks in the banking sector; It describes the bank's inability to fulfill its obligations when liquidity is needed. Managing liquidity risk is a process that covers the entire effort of banks to balance the cost of maintaining liquidity with providing sufficient liquidity. While banks increase their deposits in a planned and stable manner during liquidity risk management, they plan to meet the growth in their loans with these increased deposits. Liquidity risk arises because depositors do not know what amount of deposits they will withdraw and when, and those who need a loan do not know how much and when they will need money. For this reason, banks must have sufficient liquidity to ensure the sustainability of both their lending activities and investments and to meet the demands of depositors (Çelik and Akarım, 2012).

Banks, which are commercial enterprises, are more exposed to liquidity risk than other businesses. As a result, banks, like other businesses, need to be more sensitive about maintaining liquidity levels while maximizing their profits. A bank that operates entirely profit-oriented may always face liquidity risk in the face of unexpected events. Especially in economic environments where financial stability is weak, banks need to be more careful against liquidity risk (Erdem ve Torun, 2018).

#### **2.5. Operational Risk**

Operational risk covers risks related to the ordinary business activities of a business. In other words, operational risk refers to the risks and uncertainties that the business may encounter while trying to carry out the daily workflow in its main field of activity due to the inadequacy or problems in the functioning of internal control processes, human resources, or existing systems (Levent, 2021).

In other words, it is possible to call all risks other than financial risks as operational risks. Operational risk can be expressed as the risk of loss caused by inappropriate or disruptions in internal processes, employees, information systems, or external factors (Leblebici Teker and Ülengin, 2011). Operational risk covers the processes that must be actively measured and managed by a business to achieve the objectives of stakeholders, including shareholders, customers and management. In very general terms, operational risk refers to the "risk" associated with an organization's "operations". Operations refer to the various functions of an organization (usually a company such as a bank or insurance company) in conducting its business (Panjer, 2006).

Operational risk is divided into two types; The first type of operational risk is the risk of loss, such as an error in the firm's operating system, that is, an office (or production) process, or a failure in a transaction or investment due to legal considerations. The second type, operational risk, refers to the risk of loss arising from motives, including both fraud and mismanagement. In other words, it refers to the agency cost due to separation from the ownership and management of the company (Jarrow, 2008).

Operational risk focuses on what goods and services are produced in a business and reveals the current or future success of these production processes. Errors occur in the product, the product no longer meets the needs of the consumer, or in cases where the product is sufficient, problems such as warranty and service may result in customer dissatisfaction. Deficiencies arising from the business organizational structure and corporate leadership are also considered within operational risk. In fact, behind all these problems there are humans and designs created by humans. Therefore, operational risk; can also be described as business risk or human risk (Levent, 2021).

#### **2.6. Bankruptcy Risk**

Bankruptcy occurs when banks do not have sufficient capital due to sudden decreases in the value of their assets. No matter how strong their financial structures are, a lack of harmony between the maturities of banks' debts and receivables may cause them to experience temporary liquidity shortages. This temporary liquidity crunch can cause even a bank that is normally solvent to go bankrupt, be transferred to the fund and go bankrupt. On the other hand, banks entering into a liquidity crunch due to maturity inconvenience

may put the entire society in a vicious circle (Alışkan, 2004).

Financial institutions facing huge losses or going bankrupt and the recent global crisis have revealed the need to make legal regulations regarding over-the-counter market transactions, monitor and supervise the risks in these markets, and take measures to reduce the risks. The inability to fully monitor the transactions made in over-the-counter markets and the inability to monitor the risks that may arise in an organized structure removes these markets from transparency (Ersoy and Ulaş, 2016).

### **3. RISK MANAGEMENT**

Risk is the possibility of suffering a loss in case of a result different from the one intended to be achieved in the future, and risk management is an activity aimed at ensuring the optimum balance between the risks undertaken and the expected return (Pritchard and PMP, 2014). He sees macroeconomic instability as the main cause of the crisis and shows effects such as interest rates and inflation as the reasons that triggered the crisis. The negative impact of financial liberalization and subsequent capital outflows on economies is also increasing due to the lack of supervision in the banking system. In other words, the credit risk management process includes review, surveillance and information gathering activities. First of all, a crisis is an abnormal situation in the economy and causes large-scale fluctuations within the market mechanism by causing markets to fail to function, become locked or become overly sensitive (Yıldızoğlu, 1994).

One of the important principles of risk management in banking is allocating resources against the possibility of loss that may occur as a result of the risk undertaken, or, in banking terminology, allocating capital. In banking; There is a positive relationship between the risk assumed, the capital allocated and the expected return. Among these three facts, the risks assumed are of particular importance; Accurate measurement of risk also directly affects the amount of capital to be allocated (Yarız, 2012).

Apart from these methods, a second method that banks can use to manage credit risk is the use of derivative instruments, as in interest rate risk. The basic condition for the existence of derivative markets is that the prices of financial assets or goods traded in the market are variable enough to require a risk transfer (Seyidoğlu, 2013). Derivative products are defined as financial instruments whose values depend on the values of other assets. These instruments can be arranged on many financial elements such as foreign currency, interest, gold, commodities, and stocks, and the contracts in which these instruments are traded are; It is expressed in the form of futures, options, swaps and forwards. The purpose of using these contracts is to reduce or control the future price uncertainty or variability of a financial product or asset (Hull, 2000).

Derivative markets have emerged as an inevitable part of the process of gaining financial depth for all countries that have reached a certain level of economic development. Contracts traded in derivative markets respond to the needs of investors, firms and brokerage firms facing an increasingly difficult to understand financial market. As a natural result of this, assets traded in derivative markets have a positive and significant impact on the monetary policy of countries, the development of the financial system, the confidence of savers and the financing of companies (Dönmez and Yılmaz, 1999).

Increasing variability in the financial system in Turkey, easier access to financial markets, the state constantly demanding resources from the financial system, high rates of foreign currency deposit accounts within bank deposits and the fact that banks do not have an effective asset-liability management approach, liquidity and risk management efforts in the banking sector caused an increase. The high share of commercial banks in the banking sector has increased the importance of the risk ratings of these banks (Konak, 2023).

### **4. CONCLUSION AND RECOMMENDATIONS**

Banks fulfill important functions in the economy for carrying out the activities of businesses, developing foreign trade, implementing economic policies, increasing transactions in the market, profitability of businesses, and growth of economies. For this reason, in order for public or private banks to carry out their transactions profitably and to prevent future risks or cover them with minimal damage, all finance-related sectors cooperate; They need to carry out activities with solidarity, carry out joint projects and implement practices that can be successful in international competition in the financial sector.

In order to ensure micro and macro stability in country economies, the necessary regulations regarding financial markets and continuous improvements in the banking sector must be made. With the continuous improvements to be made, it will be possible to meet the financial needs of the sectors economically and in the long term, while on the other hand, it will be possible for the banks to maintain their profitability.

Banking crises may arise from banks' mistakes, as well as international economic instability, epidemics, disasters, earthquakes, etc. may result from negativities. For this reason, strengthening the financial sector in terms of the growth of the country's economies makes significant contributions to the effectiveness of the financial market and the growth and development of the country's economies.

A large part of the financial transactions traded in the markets are carried out by banks, and banks perform important functions as intermediaries for the completion of mutual commercial transactions. It increases the efficiency and profitability of the banking sector and, in this context, ensures that the finance it provides to its customers is received under favorable conditions. In other words, the strength and profitability of banks, which are effective in the financial systems of countries, also cause bank customers to run their businesses profitably and support the development of the country's economy.

As a suggestion for future studies on "Risk Types and Risk Management" in banking; Including issues such as risk-focused internal audit, risk-focused external audit, risk management of creditworthiness in banking, customer intelligence in banking, standardization of risk management in banking can provide significant benefits to the relevant parties in this field.

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