ANALYSIS OF SOURCES OF FUNDING BANKS OF THE SECOND LEVEL: WORLD EXPERIENCE AND KAZAKHSTAN PRACTICE

Abstract. Funding for second-tier banks is of paramount importance, since it ensures the functioning of the bank. One of the peculiarities of banks is that it operates at 80-90% at the expense of borrowed funds. Thus, bank funding represents the aggregate of attracted resources necessary for the bank to support its core business. Sources of funding are deposit resources. Customer deposits in current and current accounts, loans in the domestic and international markets, interbank loans, money market transactions, issuance of bank securities, etc.

The article analyzes the funding of second-tier banks of the Republic of Kazakhstan, its structure and dynamics.

Keywords: bank funding, funding sources, analysis of banks, attracted resources of banks.

Introduction. Second-tier banks regularly review and evaluate the funding system. At the same time, the structure of sources, their urgency and cost are considered. By urgency, funding sources can be up to 1 year (short term), from 1 year to 5 years (medium term) and over 5 years (long term). Short-term sources of funding include current and settlement accounts of customers, as well as demand deposits. In turn, to the medium and long-term - loans and securities issued. Balancing the sources of funding and assets by urgency ensures the full functioning of the bank.

The value of funding is also important. Depending on this, sources can be divided into cheap (funds on settlement and current accounts, demand deposits) and expensive (issued bonds).

For the stability of the bank, it is necessary to diversify the resource base. The dependence of the bank on any particular source of funding may cause increased business risks. In particular, a large share of deposits of individuals carries with it an increase in liquidity risk. Banks, funded primarily in the interbank market, become dependent on market volatility and vulnerable during periods of economic instability.

The specificity of second-tier banks manifests itself, as has already been said, in the structure of their resource base, in which attracted rather than own funds prevail. In this regard, the financial performance of the bank depends on the efficiency of the formation of attracted resources.

The bank’s attracted resources are traditionally subdivided into two main forms: deposits (deposits of legal entities and individuals and raised funds through issuing bank certificates) and non-depositing (attracted funds by placing their own debt securities, lending on the interbank market and the National Bank of Kazakhstan). The balance between these components in the structure of the resource base will depend on the specifics and specialization of the bank itself [1].

But since Kazakhstani banks are more prone to traditional banking, rather than investment activity, the share of the deposit form of attracting resources, as a rule, prevails [2].

Foreign banks mainly receive basic funding directly from institutional investors in global financial markets. These funds are mainly used to finance the activities of banks in the capital markets, the acquisition of high-quality liquid assets, as well as to finance various banking services. Sources of funding obtained from the placement of debt financial instruments allow banks to quickly attract large amounts of both short-term and long-term. However, the cost and availability of such funding depend on the conditions in the global financial markets, which makes it less stable compared to retail and corporate deposits. For example, during the financial crisis, a strong dependence on short-term such funding by some foreign banks contributed to solvency problems [3].
Most of the funding in foreign banks, especially with longer maturities, comes directly from institutional investors who provide financing to banks through the acquisition of marketable securities in the primary market. These instruments can subsequently be sold on the secondary market among various types of investors. For example, the Big Six Canadian banks use a wide range of instruments of this type of funding in both Canadian and foreign markets. These financing instruments, which are usually considered as liabilities on banks’ balance sheets, can be classified as secured or unsecured loans, the repayment periods of which can vary from short-term to long-term [4].

In general, the choice of the source of funding depends on the scale of the bank’s activities, but for Russian banks the rouble money market is a significant source of liquidity for the financial sector, including the banking sector [5].

After the global financial crisis, major changes occurred in the banking funding of the eurozone countries. Over the past few decades, banks have relaxed their growth restrictions on deposits and attracted funds from institutional investors in global financial markets. They began to actively use a new source of funding, such as securitization [6]. Financial globalization has allowed banks to attract funding far beyond national borders, which has expanded traditional international financing in international interbank markets [7].

**Research Methodology.** The analysis is based primarily on data from the National Bank of the Republic of Kazakhstan. This article analyzes the trends in the development of sources of funding in Kazakhstan banks using polynomial trends that indicate the forecast dynamics for the coming period.

A polynomial trend line is a curved line used when data changes. Polynomial trends are used to describe the values of time series, alternately increasing and decreasing. The polynomial is great for analyzing a large data set of an unstable value, which is most applicable to financial data. The polynomial equation has the following form:

\[ y = \sum_{j=0}^{k} b_j x^j \]

\( b_j \) – polynomial parameters; \( x_i \) – independent variable; \( y \) – dependent variable.

The degree of a polynomial is determined by the number of extremes (maxima and minima) of the curve. For a one-dimensional trend line with order 2, there is usually only one Hill or trough.

A trend line is most reliable if its value of approximation reliability R² is closer to 1 [8].

**Results.** Let us analyze the dynamics of sources of funding for second-tier banks of Kazakhstan (Figure 1).

As can be seen from Figure 1, the main share of funding sources is customer deposits. And until 2017, there was an upward trend. So, in 2016, the share of deposits in the structure of funding sources increased by 3.68%, in 2017 - by 3.82%. In 2018, the share of deposits decreased by 2.87%.

Issued securities occupy a relatively insignificant share. At the same time, until 2017, their share was reduced. So, in 2016, the share of securities in the structure of sources of funding for banks decreased by 26.92%, in 2017 - by 23.81%. In 2018, their share increased by 19.05%.

The share of retained earnings in the structure of funding sources is significantly small. In 2016, it decreased by 71.43%. In 2017, banks suffered a loss, which together amounted to -65.9 billion KZT. In 2018, retained earnings of banks increased to 3%.

It should be noted that the significant prevalence of deposits in funding sources makes banks highly dependent on customer deposits, mainly corporate.

The National Bank explains that the problem of high concentration of the resource base is closely related to the problem of dependence on the public sector. State and quasi-state enterprises are the main major lenders, most of whose claims are in the form of deposits. Currently, the level of concentration of large funding sources in banking sector liabilities remains high. About half of the commitments made by banks account for the 25 largest lenders. It should be noted that 71% of the funds of large lenders are attracted in the form of deposits, more than half of which are denominated in foreign currency (Figure 2).
Thus, the observed dependence of banks on large depositors is a factor in the vulnerability and instability of funding, and can also lead to liquidity problems in the event of withdrawals by several customers of their deposits.

In 2018, there is a gradual rebalancing of the main source of funding for deposits of individuals, whose share rose to 50.4% of the total deposit portfolio. Thus, in May 2018, a decrease in the deposit base
of banks by 235.4 billion KZT was observed, occurring against the background of a decrease in corporate deposits (-225.5 billion KZT).

In the context of individual Kazakh banks, the situation with net-stable funding is as follows (Figure 3).

![Figure 3 - Net coefficient of stable funding of Kazakhstan banks](image)

Source: [9]

The highest ratios of net-stable funding in February 2019 are typical for JSC Kaspi bank, JSC Zhilstroysberbank and JSC Halyk Bank of Kazakhstan. However, in March and April 2019, the ratio of JSC Tsesna Bank sharply increases.

Consider the dynamics of the main source of funding of Kazakhstan banks - customer deposits (Figure 4).
The stable dynamics of the sharp growth of deposits in banks was characteristic up to 2016. From this period, the volume of deposits remained almost at the same level, giving way to issued bonds and retained earnings of banks [11].

From the significant trends of 2018, we can distinguish the growth of household deposits from Kaspi Bank (+12.5 billion KZT), and their decrease in relative terms from Qazaq Banki (-26%), AsiaCredit Bank (-19%) and the Bank of Astana (-17%). At the same time, the maximum growth of corporate deposits at the end of May 2018 is noted in absolute terms by DB Sberbank (+46.7 billion KZT), which in April was the leader in their outflow (-91.0 billion KZT).

Analyzing the structure of bank customers' deposits, it is possible to note the prevalence of term deposits (Figure 5).

Starting from 2016, the share of term deposits tends to decrease. So, in 2016, their share decreased by 2.66%, in 2017 - by 0.81%, in 2018 - by 6.14% in favor of funds on current accounts. The share of demand deposits is also increasing.
The dynamics of current accounts tend to increase (Figure 6).

\[ y = 94.27x^4 - 1062.3x^3 + 3977.5x^2 - 5205.8x + 4768, \quad R^2 = 1 \]

\[ y = 20.80x^4 - 245.1x^3 + 995.7x^2 - 1472x + 1460, \quad R^2 = 1 \]

Figure 6 - Dynamics of current customer accounts in banks, billion KZT
Source: [9]

Despite the fact that the current accounts of companies in 2017 decreased by 5.01%, in 2018 their volume increased by 14.88%. The bulk of current accounts are legal entities, which are more than 4 times higher than individuals.

In the structure of term deposits, starting from 2015, there is an excess of deposits of individuals. At the same time, corporate deposits tend to decrease (Figure 7).

\[ y = 134.7x^3 - 1546.x^2 + 6018.x - 874.8, \quad R^2 = 0.999 \]

\[ y = 80.07x^3 - 1032.x^2 + 3620.x + 1515, \quad R^2 = 0.996 \]

Figure 7 - Dynamics of term deposits in banks, billion KZT
Source: [9]

The share of deposits in foreign currency in the total portfolio in May 2018 decreased from 45.0% to 44.4%. The decrease in dollarization was mainly affected by a decrease in the population’s foreign currency deposits by 3%. In 2018, the weighted average rate of remuneration of banks on attracted deposits in the national currency of legal entities was 7.3%, on household deposits - 9.9%.

Deposits in foreign currency and a tendency to decrease both in corporate deposits and in deposits of individuals. The main peak of deposits in foreign currency accounted for 2015, when in the deposit
portfolio of individuals the share of deposits in foreign currency was 34.9%, in the deposit portfolio of corporate clients - 34.3%. Since this period, there has been a gradual decline in this source of funding.

At the same time, the cost of funding of Kazakhstan banks in KZT is constantly decreasing (Figure 8).

\[ y = -0.002x^4 + 0.070x^3 - 0.611x^2 + 1.565x + 11.17 \]
\[ R^2 = 0.962 \]

\[ y = -0.006x^3 + 0.169x^2 - 1.540x + 11.78 \]
\[ R^2 = 0.980 \]

Figure 8 - Dynamics of the cost of deposit funding of banks in KZT,%
Source: [9]

As can be seen, the cost of deposit funding in KZT decreases every year, which is positive for banks. However, this causes the outflow of funds from this source in favor of the stock market. This trend should be used by banks to raise funds through the issuance of bonds.

Regarding the cost of deposit funding by urgency, we can note the following trend (Figure 9).

Figure 9 - Cost of deposit funding by urgency in KZT,%
Source: [9]

The dynamics of the cost of deposit funding clearly demonstrates the policy of banks and their need for monetary resources. When a need arises for medium or long-term sources of funding, banks increase their value, respectively. At the same time, the general dynamics of the cost of deposit funding tends to decrease.
**Findings.** The rising cost of funding has affected virtually all financial institutions in developed and developing countries in a crisis. In subsequent periods, the cost of deposit funding in Kazakhstan banks began to decline, approaching foreign standards.

Large banking systems can afford wholesale funding by entering global financial markets. For Kazakhstan banks, predominantly domestic deposit funding at a relatively high cost is typical. During periods of need for long-term funding, banks had to raise the cost of raising funds even higher than for short-term deposits. For example, this was observed in January and September 2018.

Thus, the analysis of funding of Kazakhstan banks has shown that today banks are pursuing an active deposit policy that allows them to respond more flexibly to the needs of banks for funding. At the same time, banks are dependent on deposit funding, and more recently of individuals. Increasing public interest in the stock market should reorient banks to increase wholesale funding in both the domestic and global financial markets.

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**Аннотация.** Банктердегі корландау банкке өз негізі қызметті көмекші ету үшін қажетті тартылған ресурстардың құнының бәгі болып табылады. Корландау көзірі депозиттік ресурстар, клиенттердің сөс кайрылысу және ағымдарға шөттараты қарашылдағы, сіздің және құлықтарының көзірі, банкарлық қызметтер, акша көзірі қарашылдағы операциялар, банктің өзінің қазақдарының шығару және т. б. болып табылады.

Макалада Қазақстан Республикасы есінің депозиттік банктеррің корландауы, оның құрылысы мен серпінің талдау жүргізілді.

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**АНАЛИЗ ИСТОЧНИКОВ ФОНДИРОВАНИЯ БАНКОВ ВТОРОГО УРОВНЯ: МИРОВОЙ ОПЫТ И КАЗАХСТАНСКАЯ ПРАКТИКА**

**Аннотация.** Фондирование для банков второго уровня имеет первостепенное значение, поскольку обеспечивает функционирование деятельности банка. Одной из особенностей банков выступает то, что он на 80-90% функционирует за счет привлеченных средств. Таким образом, фондирование банков представляет собой совокупность привлеченных ресурсов, необходимых банку для обеспечения своей основной деятельности. Источниками фондирования выступают депозитные ресурсы. Средства клиентов на расчетных и текущих счетах, займы на внутреннем и международном рынках, межбанковские кредиты, операции на денежных рынках, выпуск ценных бумаг банка и др.

В статье проведен анализ фондирования банков второго уровня Республики Казахстан, его структуры и динамики.

**Ключевые слова:** фондирование банков, источники фондирования, анализ банков, привлеченные ресурсы банков.

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