

## COMMERCIAL BANKS UNDER DIGITAL TRANSFORMATION

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In the context of digital transformation, commercial banks are increasingly required to process payments faster, more securely and with higher operational efficiency. The rapid development of real-time payment systems, mobile banking, internet banking and cross-border payment platforms has significantly changed the nature of liquidity management in banks. In traditional banking, payment flows were relatively predictable and processed mainly during limited business hours. However, in the digital economy, customers expect payments to be executed almost instantly, while banks must ensure that all payment obligations are fulfilled without creating excessive liquidity pressure.

The increasing speed of payment transactions creates new challenges for commercial banks. A bank may be financially stable in terms of capital adequacy and asset quality, but if it fails to organize payment flows efficiently during peak hours or stress conditions, it may face short-term liquidity shortages. Therefore, the organization of payment queues, the prioritization of urgent transactions and the effective management of intraday liquidity have become important elements of modern banking risk management.

Payment prioritization refers to the process of ranking payment instructions according to their urgency, economic importance, risk level and effect on the bank's liquidity position. Queuing policy, in turn, refers to the mechanism by which payment instructions are placed, held, released or reordered when there is insufficient liquidity for immediate settlement. In real-time gross settlement systems and large-value payment systems, such mechanisms help banks reduce settlement delays, prevent gridlock and use available liquidity more efficiently.

International experience shows that modern payment systems are not limited to the mechanical execution of payment orders. They increasingly include liquidity-saving mechanisms, central queues, priority codes, offsetting tools, automated alerts and monitoring instruments. “The Committee on Payments and Market Infrastructures notes that innovations in large-value payment systems have enabled payments to settle faster, with a lower amount of liquidity, mainly central bank money, and at a lower liquidity cost”<sup>1</sup>. This indicates that payment efficiency depends not only on the size of available liquidity, but also on how payment flows are organized and sequenced.

The importance of payment prioritization has further increased with the expansion of fast payment systems. “Fast payment systems allow the immediate or near-immediate availability of funds to the recipient and are usually designed to operate close to 24 hours a day and seven days a week. According to the Bank for International Settlements, fast payment systems enable swift processing of retail transactions and immediate availability of funds for the beneficiary”<sup>2</sup>. Such systems improve convenience for customers, but they also require banks to maintain stronger liquidity monitoring and more flexible payment processing arrangements.

### Table 1

<sup>1</sup> Committee on Payment and Settlement Systems. *New developments in large-value payment systems*. Basel: Bank for International Settlements, 2005.

<sup>2</sup> Frost J. *Fast payments: design and adoption*. *BIS Quarterly Review*. Basel: Bank for International Settlements, 2024.

### Main components of payment prioritization and queuing policy in commercial banks

Component	Economic content	Practical importance for bank solvency
Payment prioritization	Classification of payments according to urgency, value, customer importance and risk level	Ensures that critical obligations are settled first
Central payment queue	Temporary placement of unsettled payment orders when liquidity is insufficient	Prevents disorderly settlement and operational disruption
Priority codes	Internal or system-based ranking of payment instructions	Allows banks to separate urgent payments from ordinary payments
Liquidity-saving mechanism	Use of offsetting, matching and sequencing tools to reduce liquidity needs	Reduces intraday liquidity pressure
Gridlock resolution	Mechanism for releasing blocked payments through netting or reordering	Prevents accumulation of unsettled transactions
Real-time monitoring	Continuous tracking of payment flows and liquidity positions	Enables early detection of liquidity shortages
Intraday liquidity limits	Internal limits for liquidity use during the business day	Supports disciplined liquidity management
Automated alerts	Warning signals when liquidity, payment delays or queue size reach risk thresholds	Helps management take timely corrective action

Table 1 shows that payment prioritization and queuing policy are directly connected with liquidity risk management. If a bank processes all payment orders without considering urgency and liquidity impact, it may use available funds inefficiently and face difficulties in meeting critical obligations. By contrast, a well-designed queuing policy allows the bank to optimize the use of intraday liquidity and maintain payment continuity even during periods of high transaction volume.

In commercial banking practice, not all payments have the same systemic and economic importance. For example, interbank settlements, tax payments, securities settlements, large corporate payments and central bank-related transactions may have higher priority than ordinary low-value transactions. Therefore, banks should develop internal rules for classifying payments into priority groups. Such classification should be based on the value of payment, contractual obligations, regulatory requirements, customer importance, settlement deadline and potential reputational risk.

**Table 2**

#### Suggested classification of payment priorities in commercial banks

Priority level	Type of payment	Reason for priority
First priority	Central bank operations, interbank settlements and regulatory payments	Direct effect on systemic stability and legal compliance

Second priority	Large-value corporate payments and securities settlements	High liquidity impact and contractual importance
Third priority	Salary payments, tax payments and socially significant transfers	Social and reputational importance
Fourth priority	Standard customer payments through digital channels	Regular operational activity
Fifth priority	Low-value non-urgent payments	Limited systemic and liquidity impact

The classification presented in Table 2 can help banks organize payment flows more efficiently. Payments with high systemic, legal or reputational importance should be executed first, while low-value and non-urgent payments may remain in the queue until sufficient liquidity is available. This approach does not mean delaying customer payments without reason; rather, it means ensuring that the bank’s limited intraday liquidity is used rationally and according to risk-based priorities.

Payment queues are especially important in real-time gross settlement systems. In such systems, payments are settled individually and finally, which reduces settlement risk but increases the need for intraday liquidity. If a bank does not have enough funds at a certain moment, payment orders may remain unsettled. A queuing mechanism helps to avoid immediate rejection of payments and allows them to be settled later when liquidity becomes available. In addition, liquidity-saving algorithms can match offsetting payments between participants and reduce the total amount of liquidity needed for settlement.

**Table 3**

**International payment system indicators supporting the need for queuing policy**

Indicator	Source period	Reported value	Relevance to payment prioritization
Global real-time payment transactions	2023	266.2 billion transactions	Shows rapid growth of instant payment flows
Year-on-year growth of global real-time payments	2023	42.2%	Confirms increasing pressure on payment infrastructure
Jurisdictions surveyed on RTGS operating hours	2021 survey	82 jurisdictions	Demonstrates global attention to payment system modernization
RTGS systems identified in CPMI survey	2021 survey	62 systems	Shows the systemic role of RTGS infrastructures
Target for cross-border payments by 2027	G20/FSB target	75% credited within one hour	Requires faster settlement and better liquidity coordination
Remaining cross-border payments by 2027	G20/FSB target	Within one business day	Indicates the need to reduce settlement delays

The data presented in Table 3 demonstrate that payment systems are becoming faster, more complex and more demanding in terms of liquidity management. The growth of real-time payments increases the need for commercial banks to organize payment flows according to risk-based priorities. Similarly, the modernization of RTGS systems and cross-border payment arrangements requires banks to strengthen intraday liquidity management and improve queuing mechanisms.

For commercial banks, payment prioritization and queuing policy provide several important advantages. First, they help ensure that critical payments are processed on time. Second, they reduce

the risk of liquidity shortages during peak transaction periods. Third, they support the stability of the payment system by preventing the accumulation of unsettled transactions. Fourth, they improve operational discipline and reduce reputational risk. Fifth, they provide management with better information about intraday liquidity needs.

However, payment prioritization must be implemented carefully. If the rules are unclear or unfair, customers may perceive delays as poor service quality. Therefore, banks should develop transparent internal policies that define payment categories, priority levels, liquidity thresholds and responsibilities of departments. These policies should be supported by automated information systems and integrated with the bank’s liquidity risk management framework.

Digital technologies can significantly improve the effectiveness of queuing policy. Real-time data analytics, artificial intelligence, automated liquidity forecasting and dashboard-based monitoring can help banks predict payment peaks and detect liquidity shortages before they create serious problems. In addition, digital systems can automatically classify payments, assign priority levels, send alerts to risk managers and support decision-making on the use of available liquidity.

From a risk management perspective, payment prioritization should be linked with stress testing. Banks should test how their payment queues behave under different stress scenarios, such as sudden deposit withdrawals, large corporate payment orders, disruptions in correspondent banking channels, delays in incoming payments or temporary shortages of liquid assets. Such stress tests allow banks to evaluate whether their queuing policy is effective under adverse conditions.

In the context of commercial bank solvency, queuing policy is not only an operational issue, but also a financial stability instrument. A bank’s inability to execute payments on time may weaken customer confidence and create reputational risk. If payment delays become widespread, liquidity problems may transform into a solvency problem. Therefore, banks should treat payment prioritization as part of their broader solvency management strategy.

The practical relevance of this issue is also confirmed by research on bank solvency in the context of digitalization. The proposal to introduce payment prioritization and a queuing policy has been considered as a tool for strengthening the solvency of commercial banks. In applied banking practice, the use of such an approach may contribute to more stable liquidity management and more reliable fulfilment of customer payment obligations.

Thus, payment prioritization and queuing policy are becoming essential elements of commercial bank management under digital transformation. The expansion of real-time payments, the modernization of RTGS systems and the increasing speed of cross-border transactions require banks to use liquidity more efficiently and process payments according to risk-based priorities. A well-designed queuing policy allows banks to reduce intraday liquidity pressure, prevent payment gridlock and maintain the timely execution of critical obligations. Therefore, commercial banks should integrate payment prioritization mechanisms with digital monitoring, liquidity forecasting, stress testing and internal risk management systems.

### **Adabiyotlar, References, Литературы:**

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