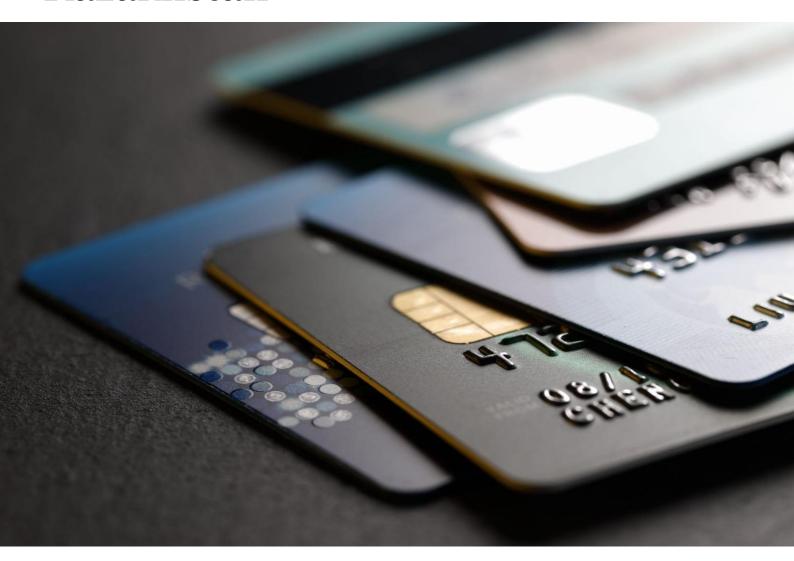


Analysis of the payment market in the Republic of Kazakhstan





Introduction

The 19th century French writer and playwright Jules Renard once said, "There are two types of people: some roll the world, while others run alongside and shout: "God, where is this world rolling?" No matter how our world changes, and whoever changes it, it is important to have reliable data for decision-making.



Natalya Lim
Partner,
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The COVID-19 pandemic not only brought fear into society, but also became the impetus for technological progress and the start of a new culture of people who, for the sake of health, switched from an offline model to an online one. By example, in addition to personal safety, users have received a new customer experience based on the speed and convenience of service.

This applies not only to payment, but also to the sale of goods and services. If before 2020 most retailers believed that their main sales channel was stores, and online was more of an image move, then the pandemic has changed the whole idea of e-commerce.

As a result, during 2020-2021, the global fintech market showed tremendous growth (in 2021, Revolut grew from USD 5.5 billion to USD 30 billion, Klarna from USD 640 million to USD 45.6 billion, and Kaspi.kz from USD 12.9 billion to USD 22.3 billion, to name just three examples out of hundreds.). The operations of fintech companies are tied to payments anyway. Therefore, we took an interest in analyzing the payments market in Kazakhstan.

Today, the demand for contactless payment methods is unprecedented. Equally high is the demand for fast transaction settlements, instant payments, e-money, and other alternative payment methods.

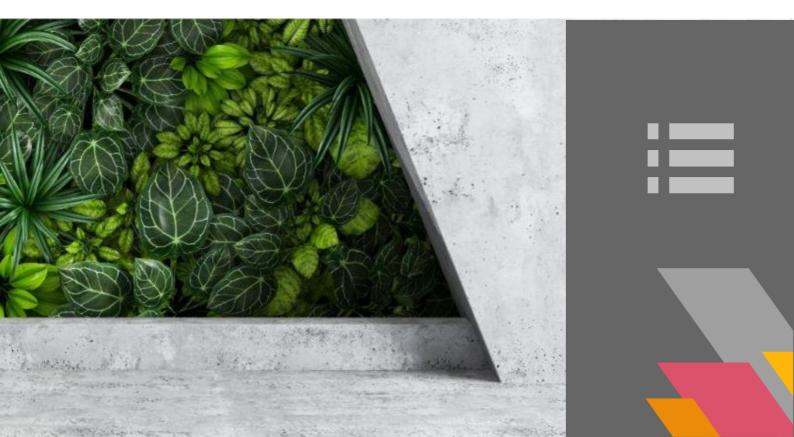
We offer you an analysis of the payment market of the Republic of Kazakhstan. We hope that this inquiry will be useful to a wide range of readers and all interested parties.

The analysis was undertaken in March 2022.



Table of contents

	Overview and objectives of the inquiry	p. 4
	Approach to analyzing survey results	p. 5
	Main conclusions	p. 6
1	Payment market overview	p. 7
2	Cash payment market	p. 8
3	Non-Cash payment market	p. 10
4	Analysis of cash transactions by region	p. 13
	Contact details	p. 16



Overview and objectives of the inquiry

The analysis of the payments market is the first publication by PwC Kazakhstan that measures the volume and number of payments made through various channels used by individuals across Kazakhstan. The inquiry conducted by PwC Kazakhstan uses an exclusive set of data from market players to assess changing trends in payment methods. It also provides a unique perspective on the volumes of various payment channels, reveals user preferences for payment methods, and provides a valuable benchmarking for users of payment instruments.

The data for the inquiry was collected in February 2022 and covers the period from January 2019 to December 2021. The survey was conducted among players that account for two-thirds of Kazakhstan's annual retail sales turnover, which amounted to Tenge 32.5 trillion in 2021.

The survey collected data related to the volume of payments made, as well as the number of transactions related to the use of cash and non-cash payment methods (online and offline POS terminals), as well as other payment methods aggregated in Smart Pay (QR, Apple Pay, Samsung Pay, Google Pay, Android Pay, Garmin Pay).

We hope that this analysis of the payment market of the Republic of Kazakhstan will be useful to a wide range of readers and interested parties.



Data

Collection of data from payment market players for an aggregated analysis



Analysis

Analysis of the payment methods in the market



Trend detection

Identification of trends and potential opportunities in the payment market



Approach to analyzing survey results

The market volume is calculated based on the data provided by market players using payment systems, as well as data from the National Bank of the Republic of Kazakhstan (NBRK) on the use of payment cards issued by Kazakhstani and foreign issuers.

The definition of the payment system of the Republic of Kazakhstan includes cash withdrawn from ATMs, non-cash payments using online and offline POS terminals, as well as other payment methods aggregated in Smart Pay (QR, Apple Pay, Samsung Pay, Google Pay, Android Pay, Garmin Pay). The inquiry does not include transfers of individuals (P2P transfers), due to the complexity of determining the intended purpose of transfers.

Several market players provided real data on the volume and number of transactions made using various payment methods. Figures have been cross-checked with NBRK's aggregate data and other publicly available statistics to determine the full market volume. Further, the proportions of the ratio of real data of market players to the NBRK's data were determined. The average of the proportions was then used to extrapolate the data. Afterwards, in case of discrepancies between these players and the NBRK's data, the proportions were adjusted using an expert opinion. As a result, the full volume of the payment market in the Republic of Kazakhstan was derived.

The analysis of data by region was conducted based on the data provided by the NBRK. The amounts include transfers and other monetary transactions and may differ from the data provided by the players.

Stage 1

Determination of estimated volumes and transactions of market players based on NBRK's data and/or statistical data

Stage 2

- Cross-check with data received from players
- Calculation of the average value of the proportion of real data to the NBRK's data and/or statistical data
- Extrapolation for the remaining market players

Stage 3

Market sizing and conducting the analysis



Main conclusions

Payment market for 12 months of 2021

1 32.5 trillion

Tenge was the market volume excluding P2P transfers

The amount of cash payments* increased by

2

31%

(compared to 2020 by 18%)

in 2021 compared to 2019

The amount of non-cash payments** increased by

3

2.5 times

(compared to 2020 by 1.8 times

in 2021 compared to 2019

The amount of payments using Smart Pay***
increased by

4

33 times

(compared to 2020 by 6.4 times)

in 2021 compared to 2019

The amount of online payments increased by

5

2.9 times

(compared to 2020 by 1.7 times)

in 2021 compared to 2019

^{***} Smart Pay: QR, Apple Pay, Samsung Pay, Google Pay, Android Pay, Garmin Pay



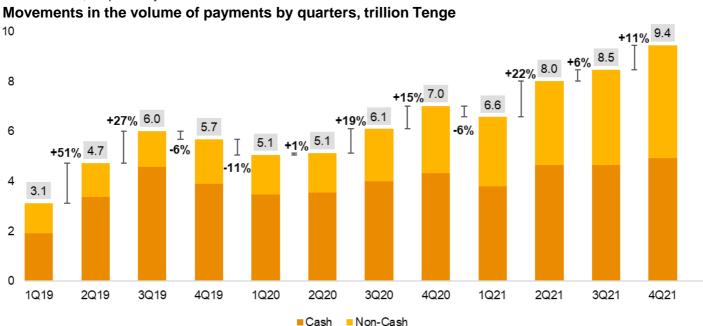
^{*} The concept of cash payments includes cash withdrawn from ATMs

^{**} The concept of non-cash payments does not include P2P transfers

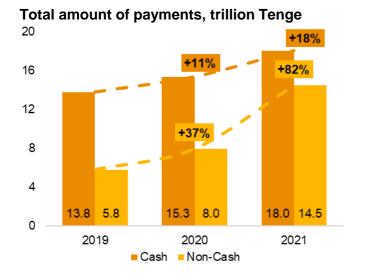
Payment market overview

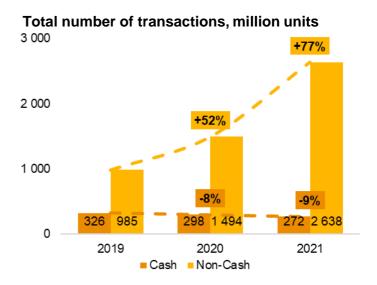
Over a period of three years, the cash payments market has seen a general growth trend by an average of 8% on a quarterly basis. A similar trend is observed in non-cash payments but with faster growth rates, on average by 14% on a quarterly basis. At the same time, abnormal surges in growth and decline were observed in 2020, which was due to the COVID-19 pandemic and changing consumer preferences.

The pandemic led to a worldwide quarantine, restrictions affected almost all small and medium-sized businesses, which led to market stagnation in the second quarter of 2020. However, this situation has precipitated the pent-up demand and an active shift to online, which has led to a significant increase in payments in the third and fourth quarters of 2020 by 19% and 15%, respectively.



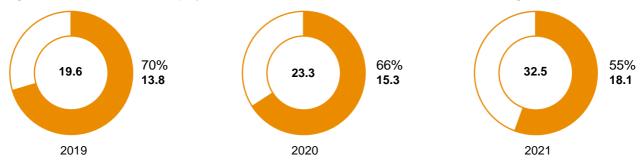
The market shows a general trend towards an increase in the number of payments in Kazakhstan. In 2021, the amount of cash payments increased by 31%, and non-cash payments by almost 2.5 times compared to 2019. In 2019, cash payments were used to pay for goods worth Tenge 13.8 trillion, which accounted for 70% of all retail payments. However, 2020 and 2021 showed a downward trend in cash use as a percentage of the total - 66% and 55%. Accordingly, the share of non-cash payments was growing. The average amount of cash withdrawals increased by 84% in 2021 compared to 2019, which most likely indicates an increase in wages and a decrease in the frequency of cash withdrawals from ATMs. At the same time, the average spend for non-cash payments decreased by 7%. The change in the average spend is substantiated by an increase in the total amount of payments in the Republic of Kazakhstan, as well as a multidirectional trend in the number of transactions. From 2019 to 2021, cash withdrawal transactions decreased by 17%, cashless transactions increased by 168%.





Cash payment market

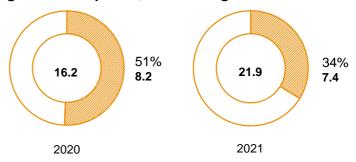
Change in the share of cash payments in the total market volume, trillion Tenge



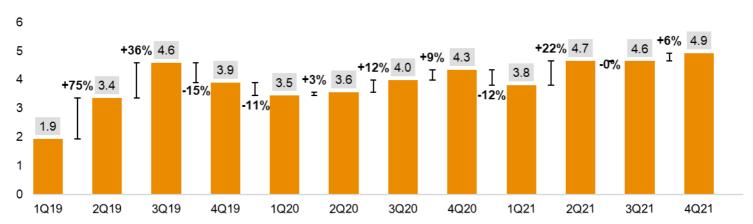
Cash is the most liquid asset. The experience of various countries shows that, regardless of the availability of non-cash payment instruments in monetary systems, the need for cash remains today. Even though the activities of central banks, as well as second-tier banks, are aimed at increasing the share of non-cash payments, using credit and debit cards, as well as electronic money, people still continue to pay for purchases and services in cash for various reasons. These may include distrust in the financial system, receiving payment for services in cash, behavioral habits and difficulties with the use of new technologies, tax and loan debt evasion, and concealment of the intended use of money. However, according to market players from 2019 to 2021, there has been a gradual decline in the share of cash payments* in the total market by 21% (or 15 pp) and a decrease in the frequency of cash withdrawals from ATMs by 17% (or 54 million units). It can be assumed that one of the main factors in the increase in the amount of cash withdrawn from ATMs is the increase in wages by 41.7% over the period described**. The accelerated development of non-cash payments, the availability of electronic devices, various promotions and cashback when paying with cards, and the development of e-commerce in connection with the pandemic have affected the decline in the share of cash payments. It is also important that during the lockdowns, cash payments were not convenient for many users for the reason that it could only be done offline. Precautions against contacting others when handing over cash during the pandemic may also have played a role in the decrease in the share of cash payments.

Despite this, as of 2021, cash remains the main payment instrument in Kazakhstan, accounting for 55% of the total market share as per our methodology. However, in reality, the share of cash may be less due to the fact that part of the cash withdrawn from ATMs can be used to replenish deposits or transferred to the accounts of other market players and reused in cashless payments. In 2021, 34% was the share of cash payments in the total market volume, taking into account the discount***.

Change in the share of cash payments in the total market volume, considering the discount on the growth of deposits, trillion Tenge



Movements in the volume of cash payments by quarters, trillion Tenge



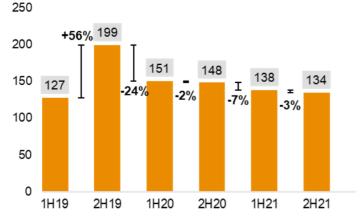
^{*} The concept of cash payments includes cash withdrawn from ATMs

^{**} According to the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

^{***} Discount on the growth of deposits calculated based on the reports (700-H form) from KASE

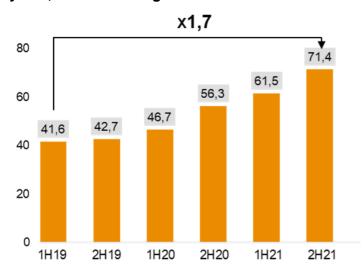
Throughout the analyzed period, the movements in the volume of cash payments* are cyclical. In the first quarters, the movements decrease compared to the last quarters of previous years. The second and third quarters of each year are characterized by accelerated growth due to the holiday season and the beginning of the school year. The fourth quarters are characterized by an increase in the volume of payments due to the New Year holidays, discounts, as well as receiving early wages and/or bonuses.

Movements in the number of cash withdrawal transactions by half-years, million units



In 2019, there was a tremendous 56% increase in withdrawals between the first and second half of the year. However, since the beginning of 2020, this trend has changed and the number of transactions has begun to decline. In the first half of 2020, from the start of the pandemic through the lockdowns, the number of transactions dropped by an unprecedented percentage of 24%, to 151 million withdrawals. Starting from the second half of 2020, when partial restrictions were still in place, and further in 2021, we saw a similar picture of a decrease in the number of withdrawal transactions from 2% to 7%. In 2019 and 2021, an increase in the amount from 13.8 to 18.1 trillion Tenge and a decrease in the frequency of cash withdrawals from ATMs from 326 to 272 million led to an increase in the average amount of cash withdrawals from ATMs by 57%.

Movements in the average cash withdrawal by halfyears, thousand Tenge



In the first half of 2020, the number of cash withdrawal transactions decreased by

24%



Non-cash payment market

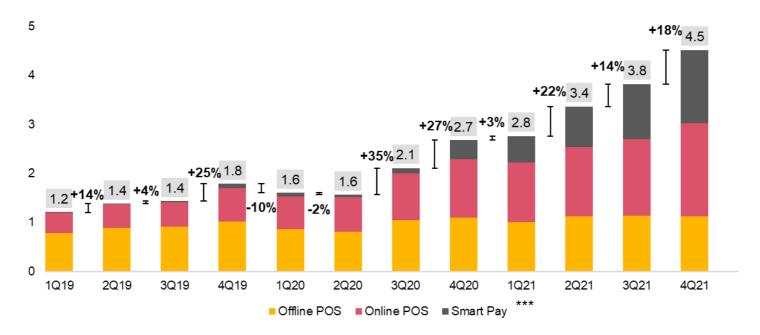
The rapid growth of non-cash payments is due to changes in consumer demands and the emergence of new payment technologies. According to data for 2021, non-cash payments amounted to Tenge 14.5 trillion, which is 82% more than in 2020. At the same time, in 2020, the increase compared to 2019 was about 37%. It is worth noting that the frequency of payments (number of transactions) via a non-cash transfer is also growing, as evidenced by the annual growth of 34% and 77% in 2020 and 2021, respectively.

Even though the COVID-19 pandemic and restrictive measures have accelerated the transition from cash to non-cash payments, the active demand for non-cash payment methods began earlier: since the first quarter of 2019, we have seen an increase in the amount due to payments through POS terminals. According to NBRK* data for 2019, the number of offline POS terminals increased by 27%, from 126,000 to 161,000, which may mean an increase in demand for card payments. Already in 2019, the amount of non-cash payments accounted for one-third of the total payment market.

The global lockdown, the boom in online deliveries, remote work, the development of retail e-commerce and the spread of innovative technologies have contributed to changes in the consumer behavior. The decrease in payments in the first half of 2020 was due to the initial economic shock and job losses. One of the confirming factors is the decrease in the level of employment of the population to a minimum of 65.7% over a 17-year period. However, by the end of the second half of 2020, the growth is noticeable, which continues its trend in 2021. Despite the job cuts and unemployment** caused by the closure of many small and medium-sized businesses in 2020, the nominal income by the end of the year, namely in the 4th quarter, increased by 15.5% compared to the previous quarter, which could be a reason for the strong 27% growth.

The new crisis caused by the COVID-19 pandemic has provided the basis for a safer and more resilient payment system. Many market participants have adapted to new conditions through digitalization, improved their business models and processes, and expanded the range of services offered. Consequently, these factors have helped build greater consumer confidence in online shopping, which can be seen from the growth in the share of non-cash payments through online POS terminals in the second half of 2020. In 2021, the trend towards convenience and safety continued. New ecosystems with diverse consumer services are being created, thereby covering an increasing market share.

Movements in the amount of non-cash payments by quarters, trillion Tenge

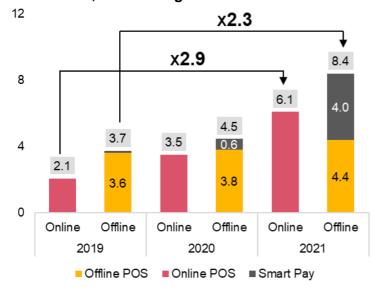


^{*} Payment cards and electronic banking services

^{**} According to the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

^{***} Smart Pay: QR, Apple Pay, Samsung Pay, Google Pay, Android Pay, Garmin Pay

Movement in the amount of non-cash payments from 2019 to 2021, trillion Tenge

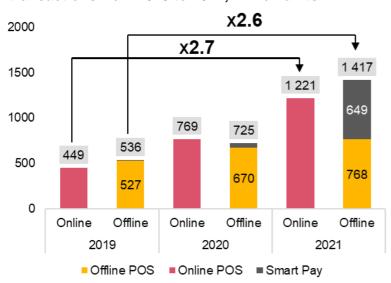


The amount of online payments has increased by 2.9 times since 2019, and the number of transactions by 2.7 times due to changed consumer behavior - people have more trust in online purchases. Other reasons for this growth were: the successful implementation of mobile commerce and banking ecosystems, the development of delivery services and incentive systems such as cashback.

Despite the rapid development of the online market, there is also a significant increase in the amount of offline payments by 2.3 times from 2019 to Tenge 8.4 trillion and 2.6 times in the number of transactions to 1.4 billion. However, it can be seen that the largest jump in the amount of non-cash payments was mainly due to Smart Pay* with a maximum annual growth of 6.4 times over the two-year period. Such a trend is caused by the convenience and safety of users, as well as the mass availability of payment using new technologies.

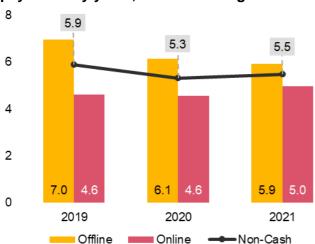
Despite a large difference in the growth of the amount of online and offline payments, the difference in the growth in the number of transactions is not so high. This indicates a higher offline average spend compared to the average online spend.

Movement in the number of non-cash payment transactions from 2019 to 2021, million units



In 2021 compared to 2019, the total amount of Smart Pay increased by

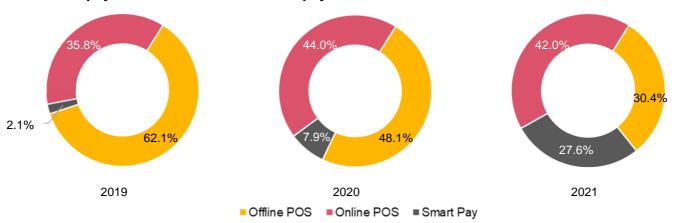
Movements in the average spend of non-cash payments by years, thousand Tenge



The movements in the amount of the average spend over three years show a strong decline in offline payments in 2021 compared to 2019 and a stagnation in the growth rate in online payments. The 15% decrease in the average spend from 2019 to 2021 in offline payments was for the reason that the frequency of payment increased due to the growing number of offline POS terminals and the increase in the availability of goods, as well as the ability to purchase them in installments. Also, another reason for the decrease in the average spend of offline payments from 2020 to 2021 could be the growing demand from consumers for offline stores due to the easing of quarantine measures. It is noteworthy that the average spend in online payments in 2021 increased by 9%.

One of the reasons may be the shift of people from online shopping to offline, since the annual increase in the number of online payment transactions decreased from 71% to 59%, while the annual increase in the number of offline payment transactions increased from 35% to 96%. At the same time, the average spend for online payments is lower than the average spend for offline payments. Possible factors could include people's tendency to buy more expensive goods in person to spend the quality, the presence of large discounts on online platforms, and the relatively high likelihood of a consumer leaving online platforms due to the availability of choice and price comparison.

Share of payment methods in non-cash payments

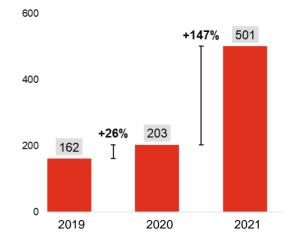


It is of note that with the increase in the share of Smart Pay* from 2.1% to 27.6% of the total non-cash payments, the share of offline POS drops significantly from 62.1% to 30.4% of the total non-cash payments. It can be assumed that users have begun to prefer payment using Smart Pay. This payment method is simpler and more convenient compared to the classic payment methods using bank cards. To date, there is a lot of competition in the market: everyone is trying to attract and retain as many customers as possible. As such, sellers are trying to provide modern POS terminals of various acquirer banks.

According to the NBRK's data**, in 2021 alone, the number of POS terminals increased 2.5 times. Not only their number but also functionality increased. A large share of new terminals accepts not only contactless payment, but also payment via a QR code. Such terminals are available from leading players in the local market: Kaspi.kz, Halyk Bank and Jusan Bank. Another advanced solution is to use your phone as a POS terminal.

With the development of retail e-commerce and delivery services, more and more offline retailers are moving to a hybrid sales format, i.e. adding online sales to their services. As a result, in 2021, the share of online POS payments increased to 42%.

Movements in the number of POS terminals, thousand units



^{*} Smart Pay: QR, Apple Pay, Samsung Pay, Google Pay, Android Pay, Garmin Pay

^{**} Payment cards and electronic banking services

Analysis of cash operations by regions

The analysis of cash operations by regions was conducted based on the data provided by the NBRK. The amounts include transfers and other monetary operations and may differ from the data provided by the players.

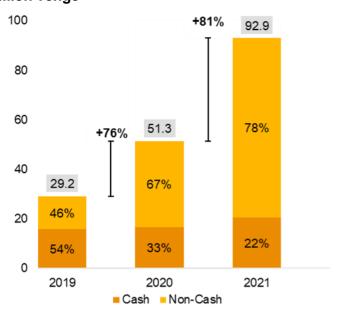
The pandemic has greatly accelerated two important factors in global payment activity: the outflow of cash operations into non-cash operations and consumer confidence in online payments. This trend is clearly visible in the market share of non-cash operations in large cities of Kazakhstan, where there is an extensive network of ATMs and POS terminals, as well as a wide range of Internet sites, a range of goods and delivery services.

The share of non-cash operations (taking into account transfers) during all three years was higher than the share of cash operations. In 2019, the share of non-cash operations in Almaty city was 64%, Nur-Sultan - 50%, and in the regions - 30%.

In 2020, restrictive measures and an increase in the number of POS terminals accelerated the decline in the use of cash. As a result, users have moved to alternative forms of payment such as online and offline POS, as well as Smart Pay*.

In 2021, in Shymkent, Nur-Sultan and Almaty cities, the share of non-cash operations ranged from 77% to 87% in terms of the amount of operations. While in total in 14 regions of Kazakhstan this indicator is about 69%.

Movements in the amount of financial operations, trillion Tenge





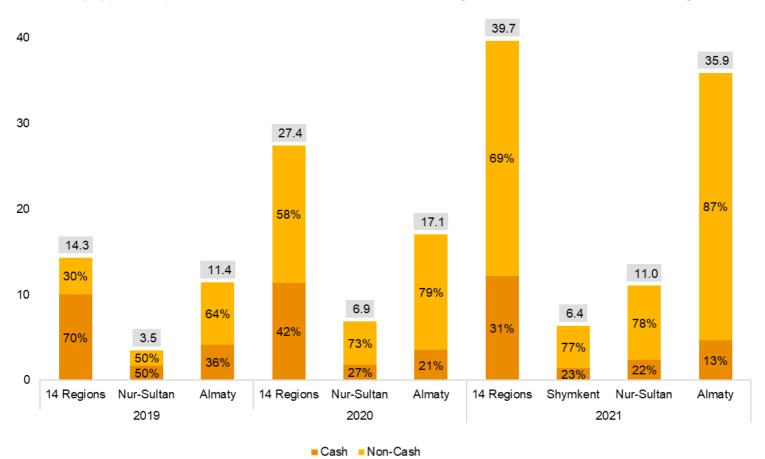
In 2021, Almaty city accounts for the largest amount of financial operations in Kazakhstan, which accounted for 43% of the total market. In 2020, the share of Almaty city in the monetary operations market in terms of the amount decreased by 15% (or 6 pp) compared to the share of 2019. The main reason for the decrease could be the outflow of people from the city to the regions and districts due to the lockdown and restrictive measures, as well as the ability to work remotely. In 2020 alone, the share of regions of Kazakhstan in the monetary operations market increased by 9% (or 4 pp) compared to the share of 2019.

In 2019, residents of Almaty city were already actively conducting non-cash operations, and according to the National Bank of the Republic of Kazakhstan, they amounted to Tenge 7.2 trillion. At the same time, the corresponding amount of the remaining regions and Nur-Sultan city together amounted only to Tenge 6 trillion. However, the situation changed in 2020 with the introduction of the lockdown and quarantine measures. The amount of non-cash operations in the regions increased 4 times - up to Tenge 16 trillion, and exceeded the amount for Almaty city by Tenge 2.5 trillion. In 2021, Almaty city regained its leading position but the digitalization of other regions of Kazakhstan allowed to increase the amount of non-cash operations in the country by 5.4 times since 2019. As a result, in less than two years, the share of non-cash operations in Kazakhstan reached a record of 78%.

The transition to non-cash operations makes the market more transparent. As noted by the government of Kazakhstan, the accelerated growth of non-cash operations allows to make the transfer of funds from the initial user to the final beneficiary more efficient, reduces the costs of financial transactions and prepares the foundation for universal declaration of income in 2025. Thus, these changes may allow to reduce the gray economy to the 15% of GDP* as requested by the head of state.

More and more new technologies for conducting non-cash operations are being introduced by local and international players. Various innovations are already being used everywhere due to their convenience and accessibility. Over the past three years, the players and users of the non-cash operations market have demonstrated their willingness to change their habits.

Shares by types of operations and total volume of cities and regions of Kazakhstan, trillion Tenge



^{*} Speech of President Kassym-Jomart Tokayev at an extended meeting of the Government



Thank you!

We would like to express our gratitude to each participant of our inquiry for their time, opinion and invaluable assistance in shaping the results.

We hope that the result of our joint efforts will contribute to a deeper understanding of the current processes in the development of the payments market and in the change in user behavior taking place in Kazakhstan.



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