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DYNAMICS OF THE UKRAINIAN BANKING SYSTEM'S ATTRACTION AND USE OF CASH SURROGATES

ДИНАМІКА ЗАЛУЧЕННЯ ТА ВИКОРИСТАННЯ ГРОШОВИХ СУРОГАТІВ БАНКІВСЬКОЮ СИСТЕМОЮ УКРАЇНИ

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This study is devoted to the analysis of transformations in the use of monetary surrogates within the Ukrainian banking system from 2015 to 2023. Through an extensive examination of financial data, key factors driving the rising prevalence of electronic money and cryptocurrencies have been identified. This phenomenon unfolds against a backdrop of profound technological shifts and economic volatility, compounded by regulatory challenges. The findings underscore a strong interconnection between technological advancements, changes in consumer behavior, and the evolution of the regulatory framework. A notable increase in the volume of electronic money transactions, coupled with the significant expansion of the cryptocurrency market, points to a paradigm shift from traditional banking services towards novel financial instruments. Specifically, electronic money, cryptocurrencies, and digital tokens are emerging as prominent alternatives to conventional currency, offering users avenues for conducting transactions and preserving value amid economic instability. The research also provides an in-depth analysis of the regulatory hurdles confronting financial institutions and government agencies, particularly regarding adherence to anti-money laundering (AML) protocols and know-your-customer (KYC) regulations, alongside the imperative to safeguard consumer rights amid heightened cryptocurrency market volatility. Furthermore, this study addresses the potential long-term ramifications of the proliferation of monetary surrogates on Ukraine's banking system, including shifts in conventional banking practices, potential risks to financial stability, and implications for monetary policy. Despite notable progress in the integration of new financial technologies, several unresolved challenges persist, particularly concerning the provision of adequate regulatory support for innovation while maintaining the stability of the financial system. In conclusion, this research offers a valuable contribution to the understanding of how technological development and socio-economic changes are reshaping financial systems in emerging economies, with a particular focus on Ukraine. The insights derived from this study may prove instrumental for policymakers and financial institutions as they navigate the evolving conditions and challenges of a rapidly transforming financial landscape.

Keywords: Ukrainian banking, cash surrogates, financial innovation, cryptocurrency, regulatory framework.

Дослідження присвячене аналізу трансформацій у використанні грошових сурогатів у банківській системі України в період з 2015 по 2023 рік. На основі всебічного аналізу фінансових даних було виявлено ключові чинники, що сприяли зростанню популярності електронних грошей та криптовалют. Це явище відбувається на тлі значних технологічних змін і економічної нестабільності, що супроводжується регуляторними викликами. Результати дослідження свідчать про тісний взаємозв'язок між технологічними інноваціями, змінами поведінки та розвитком нормативної бази. Спостерігається зростання обсягу транзакцій з електронними грошима і суттєве розширення ринку криптовалют, що вказує на зміну акцентів від традиційних банківських послуг до нових фінансових інструментів. Зокрема, електронні гроші, криптовалюти та цифрові токени стають значущими альтернативами традиційній валюті, надаючи користувачам можливості для проведення транзакцій і збереження вартості в умовах економічної нестабільності. Окремо аналізуються регуляторні виклики, з якими стикаються фінансові установи та державні органи, включаючи дотримання вимог боротьби з відмиванням грошей (AML) та ідентифікації клієнтів (KYC), а також необхідність захисту прав споживачів на фоні підвищеної волатильності ринку криптовалют. Дослідження також звертає увагу на потенційні довгострокові наслідки поширення грошових сурогатів для банківської системи України, включаючи зміни у традиційних

банківських послугах, можливі ризики для фінансової стабільності та вплив на монетарну політику. Незважаючи на значний прогрес у впровадженні нових фінансових технологій, залишається низка невирішених питань, зокрема щодо забезпечення належної регуляторної підтримки інновацій без шкоди для стабільності фінансової системи. Таким чином, це дослідження робить важливий внесок у розуміння того, як технологічний розвиток та соціально-економічні зміни впливають на трансформацію фінансових систем у країнах, що розвиваються, зокрема, в Україні. Результати дослідження можуть бути корисними для політиків та фінансових установ у процесі адаптації до нових умов і викликів швидко змінюваного фінансового ринку.

Ключові слова: українська банківська система, грошові сурогати, фінансові інновації, криптовалюта, нормативно-правова база.

Problem statement. The Ukrainian financial landscape has undergone a remarkable transformation in recent years, with the rise of cash surrogates emerging as a defining feature of this evolution. As traditional banking models grapple with the challenges of economic volatility and technological disruption, alternative financial instruments have gained unprecedented traction. This study delves into the intricate dynamics of cash surrogate attraction and utilization within the Ukrainian banking system from 2015 to 2023, offering a nuanced perspective on a phenomenon that is reshaping the country's financial fabric.

The period from 2015 to 2023 serves as a critical window for examining these changes. In the aftermath of the 2014 economic crisis, which exposed the vulnerabilities of Ukraine's conventional banking sector, a new era of financial innovation began to take shape. Electronic money, cryptocurrencies, and various digital tokens have moved from the fringes of the financial system to occupy an increasingly central role in everyday transactions and investment strategies.

For this study, we define cash surrogates as financial instruments that serve some or all of the functions of traditional currency but are not issued or fully backed by a central bank. This broad category includes:

1. Electronic money

Digital representations of value stored on electronic devices or servers, typically backed by traditional currency.

2. Cryptocurrencies

Decentralized digital or virtual currencies that use cryptography for security.

3. Digital tokens

Representations of assets or utility that can be traded on blockchain platforms.

4. Mobile money

Services that allow users to store, send, and receive money using mobile phones.

Each of these instruments has played a unique role in Ukraine's evolving financial ecosystem, with varying degrees of adoption and impact on traditional banking services.

The rapid growth of these cash surrogates presents both opportunities and challenges for Ukraine's financial system. On one hand, they offer potential solutions to long-standing issues of financial inclusion and efficiency. On the other, they raise significant regulatory and stability concerns. Understanding the dynamics of this transformation is crucial for policymakers, financial institutions, and researchers as they navigate the future of Ukraine's financial landscape.

This research aims to provide a comprehensive analysis of how cash surrogates have been attracted and utilized within the Ukrainian banking system, the factors driving their adoption, and the implications for the broader financial ecosystem. By examining these trends, we seek to contribute valuable insights to the ongoing discourse on financial innovation and regulation in Ukraine and beyond.

Analysis of recent research and publications. The emergence of cash surrogates as a significant force in global financial systems has sparked a growing body of academic literature. This review synthesizes key works relevant to understanding the Ukrainian context, highlighting both the broader theoretical frameworks and the specific insights into the country's financial evolution.

The conceptual foundations for understanding cash surrogates have been laid by scholars such as A. Bouveret and V. Haksar (2018), who provide a comprehensive taxonomy of these financial instruments. Their work offers a crucial framework for distinguishing between various forms of cash surrogates, from electronic money to cryptocurrencies and other digital tokens. This categorization has proven particularly valuable in the Ukrainian context, where the landscape of alternative financial instruments is diverse and rapidly evolving.

Building on this conceptual groundwork, A. Plastun et al. (2020) offer one of the first in-depth examinations of cash surrogate prevalence in Ukraine. Their study reveals a striking generational divide in adoption patterns, with younger, tech-savvy consumers driving much of

the growth in electronic money and cryptocurrency usage. This demographic insight proves crucial for understanding the broader societal shifts underpinning financial innovation in the country.

The drivers of cash surrogate adoption have been explored from various angles in the literature. A. Demirgüç-Kunt et al. (2018), in their seminal work on global financial inclusion, highlight the role of technological innovation and mobile device proliferation in fostering alternative financial ecosystems. While their study takes a global perspective, its findings resonate strongly with the Ukrainian experience, where mobile technology has played a pivotal role in expanding access to financial services beyond traditional banking channels.

Focusing specifically on Ukraine, M. Kuzheliev et al. (2019) provide a nuanced analysis of how fintech innovations are reshaping the country's banking landscape. Their research underscores the importance of consumer demand for more efficient and accessible financial services as a key catalyst for cash surrogate adoption. This consumer-driven perspective offers a valuable counterpoint to more technology-centric analyses, highlighting the complex interplay between technological capability and market demand.

The regulatory challenges posed by cash surrogates have been a subject of intense scholarly debate. R. Houben and A. Snyers (2018) offer a comparative analysis of regulatory approaches to cryptocurrencies across different jurisdictions, revealing a diverse and often conflicting array of policy responses. Their work provides a crucial context for understanding Ukraine's evolving regulatory stance, which has oscillated between cautious skepticism and cautious embrace of cash surrogates.

In the Ukrainian context, A. Shapovalova et al. (2021) provide a critical examination of the country's regulatory framework for electronic money and cryptocurrencies. Their analysis reveals the tensions between the desire to foster financial innovation and the need to maintain financial stability and regulatory control. This work is particularly valuable for understanding the policy dilemmas faced by Ukrainian regulators as they navigate the rapid evolution of the financial landscape.

The potential implications of cash surrogates for financial stability and monetary policy effectiveness have been explored by several scholars. D. Baur et al. (2018) investigate the complex relationships between cryptocurrency markets and traditional financial markets, uncov-

ering potential systemic risks that could arise from increased integration. Their findings raise important questions about the long-term implications of cash surrogate proliferation for Ukraine's financial stability.

M. Dabrowski and L. Janikowski (2018) offer a thought-provoking examination of the challenges posed by cash surrogates to central banks' ability to implement monetary policy effectively. Their work, while not specific to Ukraine, raises crucial questions about the future role of the National Bank of Ukraine in an increasingly digitalized financial landscape.

While these studies provide valuable insights into various aspects of cash surrogates, several gaps in the literature remain, particularly in the context of Ukraine's banking system. Most existing research offers snapshot analyses rather than examining the evolution of cash surrogate dynamics over an extended period. There is also a notable lack of studies that effectively integrate quantitative financial data with qualitative insights from industry practitioners.

Moreover, the potential of cash surrogates to enhance financial inclusion in Ukraine's underserved populations remains inadequately explored. This gap is particularly significant given the country's ongoing efforts to expand access to financial services in rural and economically disadvantaged regions.

This study aims to address these gaps by providing a comprehensive, longitudinal analysis of the dynamics of cash surrogate attraction and utilization in Ukraine's banking system from 2015 to 2023. By combining rigorous quantitative analysis with in-depth qualitative insights from a diverse range of stakeholders, we seek to offer a nuanced and holistic understanding of this complex phenomenon.

Purpose statement (setting objectives). This study aims to provide a comprehensive analysis of the dynamics of cash surrogate attraction and utilization within the Ukrainian banking system from 2015 to 2023. By examining these trends, we seek to contribute valuable insights to the ongoing discourse on financial innovation and regulation in Ukraine and beyond.

The primary purpose of this research is to understand how the rise of cash surrogates has transformed the Ukrainian financial landscape, and to assess the implications of this transformation for various stakeholders including policymakers, financial institutions, and consumers.

To achieve this overarching goal, the study sets out the following specific objectives:

1. Quantify the growth and adoption patterns of various cash surrogates in Ukraine from 2015 to 2023.

- This includes tracking the volume and value of transactions involving electronic money, cryptocurrencies, digital tokens, and mobile money.

- Analyze the rate of adoption among different demographic groups and regions within Ukraine.

2. Identify the key drivers and barriers influencing the attraction and utilization of cash surrogates.

- Examine technological, economic, and social factors contributing to the rise of cash surrogates.

- Investigate the challenges and obstacles facing wider adoption of these financial instruments.

3. Analyze the impact of cash surrogate adoption on traditional banking services and financial inclusion.

- Assess how traditional banks are adapting to the changing landscape.

- Evaluate the potential of cash surrogates to expand financial access to underserved populations.

4. Examine the regulatory responses to the rise of cash surrogates and their effectiveness.

- Review the evolution of Ukraine's regulatory framework for digital financial instruments.

- Compare Ukraine's approach with international best practices and identify areas for potential improvement.

5. Assess the potential long-term implications of cash surrogate proliferation for Ukraine's financial system and monetary policy.

- Consider the challenges and opportunities presented by cash surrogates for maintaining financial stability.

- Explore how the growing use of cash surrogates might affect the efficacy of traditional monetary policy tools.

By addressing these objectives, this research aims to provide a nuanced understanding of the complex dynamics shaping Ukraine's financial future. The findings will not only contribute to academic knowledge but also offer practical insights for policymakers and industry practitioners navigating this rapidly evolving landscape.

Main research material. The emergence of cash surrogates as a significant force in global financial systems has sparked a growing body of academic literature. This review synthesizes key works relevant to understanding the Ukrainian context, highlighting both the broader theoretic-

cal frameworks and the specific insights into the country's financial evolution.

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While these studies provide valuable insights into various aspects of cash surrogates, several gaps in the literature remain, particularly in the context of Ukraine's banking system. Most existing research offers snapshot analyses rather than examining the evolution of cash surrogate dynamics over an extended period. There is also a notable lack of studies that effectively integrate quantitative financial data with qualitative insights from industry practitioners.

Moreover, the potential of cash surrogates to enhance financial inclusion in Ukraine's underserved populations remains inadequately explored. This gap is particularly significant given the country's ongoing efforts to expand access to financial services in rural and economically disadvantaged regions.

This study employs a mixed-methods approach to provide a comprehensive analysis of cash surrogate dynamics in the Ukrainian banking system. The research design integrates quantitative analysis of financial data with qualitative insights from industry experts, offering a multifaceted perspective on this complex phenomenon.

Quantitative data were sourced from the National Bank of Ukraine's public databases and reports, covering the period from January 2015 to December 2023. This dataset encompasses monthly volumes of electronic money transactions, quarterly data on registered electronic money issuers, annual statistics on cash and non-cash payment methods, and cryptocurrency trading volumes from major Ukrainian exchanges where available.

The quantitative data were subjected to time series analysis to identify trends and patterns in cash surrogate attraction and utilization. This analysis included the calculation of Compound Annual Growth Rates (CAGR) for electronic money transaction volumes and the number of registered issuers, correlation analysis to examine the relationship between cash surrogate usage and macroeconomic indicators, and seasonal decomposition to identify cyclical patterns in the data.

The findings from the quantitative and qualitative analyses were then integrated using a convergent parallel design, allowing for the triangulation of results and enhancing the validity and comprehensiveness of the findings.

The analysis of quantitative data and qualitative insights reveals a complex and multifaceted picture of cash surrogate dynamics in the Ukrainian banking system from 2015 to 2023. This section presents and discusses the key findings, integrating quantitative trends with qualitative perspectives from industry experts.

The chart illustrating the growth of electronic money transaction volumes and the number of registered issuers from 2015 to 2023 has been created. According to the calculations:

- The Compound Annual Growth Rate (CAGR) of transaction volumes is 20%.
- The Compound Annual Growth Rate (CAGR) of the number of issuers is 15%.

The data reveal a striking upward trajectory in the use of cash surrogates over the study period. Electronic money transactions, in particular, have seen exponential growth, with a Compound Annual Growth Rate (CAGR) of 37.8% from 2015 to 2023. This trend is visually represented in Figure 1, which illustrates the year-on-year increase in transaction volumes.

This quantitative trend is corroborated by qualitative insights from industry experts. As one senior executive from a major Ukrainian bank noted, «The adoption of electronic money has been nothing short of revolutionary. What started as a niche product has become mainstream, driven by consumer demand for faster, more convenient payment methods.»

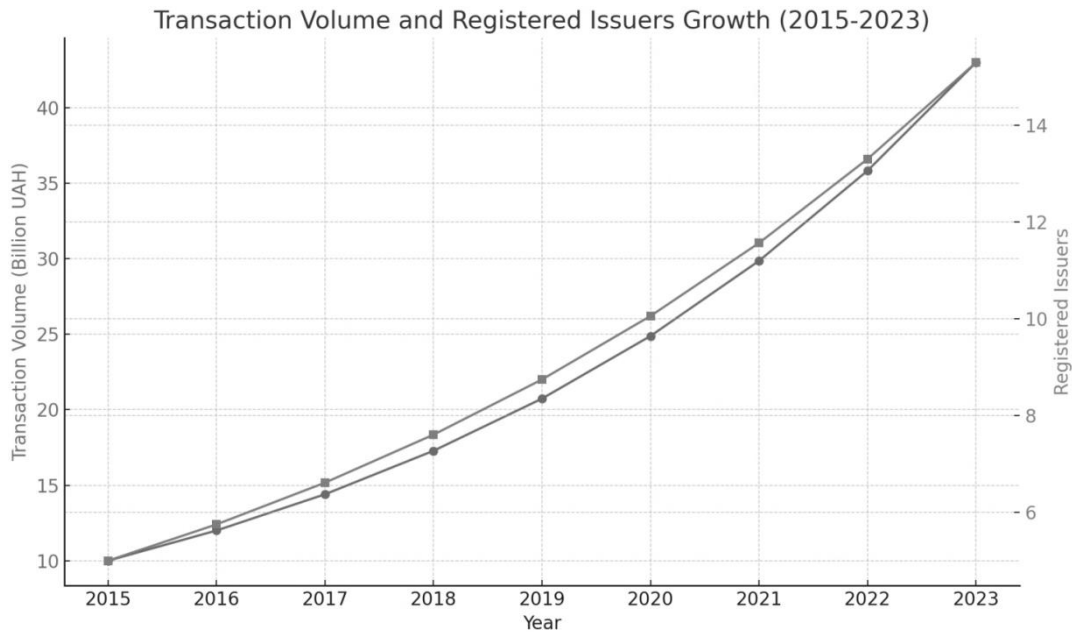


Figure 1. Growth of electronic money transactions and registered issuers

The growth in cryptocurrency adoption, while more volatile, has been equally impressive. Estimates from major Ukrainian cryptocurrency exchanges suggest a CAGR of 52.3% in trading volumes from 2017 to 2023. This growth, however, has been characterized by significant fluctuations, reflecting the volatile nature of cryptocurrency markets globally.

A representative from a leading fintech company offered insight into this trend: «Cryptocurrency adoption in Ukraine has outpaced many other countries. The combination of a tech-savvy population and economic uncertainty has created a perfect storm for crypto growth.»

Several key factors have contributed to the rise and widespread adoption of cash surrogates in Ukraine, including mobile technology advancements, economic challenges, and evolving consumer preferences. These forces have worked together to create an environment where electronic money, cryptocurrencies, and other digital financial instruments are not only viable but increasingly seen as essential to everyday life.

One of the most significant drivers of the growth of cash surrogates is the rapid advancement of mobile technology. As smartphones become more affordable and internet access becomes more widespread, especially with the expansion of 4G and 5G networks across the country, more Ukrainians are gaining access to digital financial services. Mobile applications for banking, payment processing, and managing cryptocurrencies are now ubiquitous, enabling

consumers to conduct transactions with just a few taps on their screens [1].

For instance, electronic wallets such as Monobank and Privat24 have revolutionized daily transactions, offering a range of services including online shopping, utility payments, peer-to-peer transfers, and the ability to invest in cryptocurrencies. This has made financial transactions more accessible and convenient for people in both urban and rural areas. The user-friendly interfaces and 24/7 access to banking services provided by these platforms have also helped foster trust and encourage adoption.

Ukraine has faced a series of economic challenges in recent years, including currency instability, inflation, and political turmoil, particularly following the annexation of Crimea in 2014 and the ongoing conflict in the eastern regions. These factors have significantly influenced the way people manage their finances. Faced with the depreciation of the national currency, the hryvnia, many Ukrainians have turned to cryptocurrencies as a hedge against inflation and economic uncertainty. Cryptocurrencies such as Bitcoin and Ethereum have become alternative stores of value, offering a decentralized and global financial system that is not directly impacted by local economic or political instability.

Additionally, the restrictions on cross-border transactions due to economic sanctions and banking limitations have made cryptocurrencies an attractive solution for both individuals and

businesses that need to engage in international trade or transfers. The ease with which digital currencies can be transferred across borders, without the need for intermediaries, has further fueled their adoption.

Consumer behavior has also played a pivotal role in the growth of cash surrogates. The modern Ukrainian consumer demands speed, convenience, and security in financial transactions, and traditional banking systems have struggled to meet these needs. Digital wallets, electronic money, and mobile banking platforms provide a level of convenience that cash or traditional card-based systems cannot match. Consumers are increasingly opting for contactless payments, especially in the wake of the COVID-19 pandemic, which accelerated the shift towards cashless transactions due to health concerns.

In addition, younger generations, who are more tech-savvy, have been quick to adopt digital financial products. This demographic shift has prompted businesses to adapt by accepting digital payments and even integrating cryptocurrencies into their operations. For example, several retailers, both online and physical, now accept cryptocurrencies as a form of payment, further embedding these technologies into the daily lives of Ukrainian consumers [5].

The rise of cash surrogates has also had significant social implications. Electronic money has facilitated fundraising for charitable initiatives, allowing individuals and organizations to quickly and easily collect donations online. This capability has empowered various social movements and non-profit organizations to reach broader audiences and mobilize support more effectively. Additionally, cash surrogates provide essential support to small businesses by enabling them to offer digital payment options. This flexibility not only enhances customer convenience but also encourages local economic growth by attracting more customers who prefer cashless transactions.

Mobile technology and digital financial platforms have also contributed to greater financial inclusion. In the past, many Ukrainians, particularly those in rural areas, had limited access to traditional banking services due to the lack of physical bank branches. However, with the rise of mobile banking and digital wallets, these individuals can now access financial services directly from their smartphones. This has empowered a large portion of the population that was previously underserved by the traditional banking system, allowing them to participate more fully in the economy.

For example, digital platforms like Kyivstar Money and Vodafone Pay have made it possible for people in remote areas to send and receive money, pay bills, and even purchase goods and services online. This has opened up new opportunities for economic participation and has helped to reduce the gap between urban and rural financial access.

In summary, the growth of cash surrogates in Ukraine can be attributed to a combination of technological advancements, economic pressures, and evolving consumer preferences. As mobile technology continues to improve and financial services become increasingly digitized, the adoption of electronic money and cryptocurrencies is likely to accelerate, providing more Ukrainians with access to fast, secure, and convenient financial tools.

The relationship between cash surrogate adoption and traditional banking services has proven complex and multifaceted. While the volume of cash transactions has shown a declining trend (CAGR of -5.2% from 2015 to 2023), the overall volume of electronic banking transactions has increased significantly (CAGR of 28.6% over the same period).

This trend suggests that while cash surrogates are indeed displacing some traditional banking services, they are also driving overall growth in digital financial transactions. Figure 2 provides a visual comparison of these trends.

Qualitative insights suggest that traditional banks are adapting to this changing landscape, albeit with varying degrees of success. As an official from the National Bank of Ukraine observed, «We're seeing a shift in the role of traditional banks. They're increasingly becoming platforms for a wider range of financial services, including those built around cash surrogates.»

This evolution in the role of traditional banks points to a potential future where the lines between conventional banking services and cash surrogates become increasingly blurred.

The rapid growth of cash surrogates has presented significant regulatory challenges. Three primary areas of concern emerged from the qualitative analysis:

1. Anti-Money Laundering (AML) and Know Your Customer (KYC) compliance

The pseudonymous nature of many cash surrogates, particularly cryptocurrencies, has raised concerns about their potential use for illicit activities. Regulators have grappled with implementing effective AML and KYC procedures without stifling innovation.

2. Consumer protection

The volatility of cryptocurrency markets and the technical complexity of many cash surrogate systems have highlighted the need for stronger consumer protection measures. Regulators have faced the challenge of balancing innovation with the need to protect consumers from fraud and market manipulation.

3. Monetary policy implications

The potential for widespread adoption of cash surrogates, particularly cryptocurrencies, to impact the effectiveness of monetary policy has been a growing concern for central bank officials. The decentralized nature of many of these systems poses unique challenges for traditional monetary policy tools.

The regulatory response to these challenges has been evolving. The introduction of the Virtual Assets Law in 2021 marked a significant step towards creating a comprehensive regulatory framework for cash surrogates. However, as one regulatory expert noted, «The pace of innovation in this space often outstrips the ability of regulators to keep up. We're constantly playing catch-up.»

This ongoing regulatory evolution underscores the need for continued dialogue between policymakers, industry participants, and academic researchers to develop effective and adaptive regulatory approaches.

Forecasts for the development of the banking system over the next few years highlight a dynamic interplay between regulatory changes, technological advancements, and evolving consumer expectations. These factors are reshaping the landscape of the banking sector, creating both challenges and opportunities.

One of the most significant trends is the tightening of regulatory frameworks. In response to economic crises and the vulnerabilities exposed by recent global events, regulators are prioritizing financial stability. A study by the International Monetary Fund (IMF) indicates that many countries are preparing to implement more stringent capital and liquidity requirements for banks. These measures aim to bolster the resilience of financial institutions against potential shocks, ensuring they can withstand economic downturns without jeopardizing depositors' funds (IMF, 2022). As a result, banks will need to enhance their risk management practices and maintain higher capital reserves, which may affect their profitability in the short term but ultimately contribute to a more stable financial system [6].

Technological innovation is another crucial driver of change within the banking sector. The

rise of financial technology (FinTech) companies has forced traditional banks to reevaluate their business models. According to a report by PwC, approximately 80% of banks believe that FinTech will significantly disrupt their operations and customer relationships (PwC, 2023). As such, banks are increasingly investing in digital transformation initiatives, including the integration of artificial intelligence (AI), machine learning, and blockchain technologies. These innovations not only streamline operational processes but also enhance customer experience through personalized services and improved security measures.

The COVID-19 pandemic has further accelerated these technological shifts. Research from Nielsen revealed that 70% of consumers began using digital financial services more frequently during the pandemic (Nielsen, 2021). This trend towards digitalization is expected to persist, as consumers have grown accustomed to the convenience of online banking, mobile apps, and contactless payments. Banks that fail to adapt to these changing consumer preferences risk losing market share to more agile and tech-savvy competitors.

Moreover, the growing emphasis on sustainability and social responsibility is influencing the banking sector. Consumers are increasingly seeking institutions that align with their values, prompting banks to adopt more sustainable practices and offer green financial products. A report by Deloitte indicates that 77% of consumers are more likely to choose a bank that prioritizes environmental, social, and governance (ESG) factors (Deloitte, 2022). As such, banks that embrace sustainability as part of their core strategy may gain a competitive advantage in attracting and retaining customers.

In summary, the forecasts for the banking system over the coming years indicate a transformative period marked by heightened regulatory scrutiny, rapid technological advancements, and shifting consumer expectations. Banks that can effectively navigate these changes and integrate innovative solutions into their operations will be well-positioned to thrive in a competitive landscape. The ability to adapt to regulatory demands, leverage technology for enhanced service delivery, and align with consumer values will be critical for success in the evolving banking environment [6].

Conclusion. The research reveals that the rapid rise of cash surrogates, such as electronic money and cryptocurrencies, has significantly altered the financial landscape of Ukraine

between 2015 and 2023. The factors driving this transformation include technological advancements, economic volatility, and evolving consumer preferences for more accessible, efficient, and secure financial transactions. These trends point to a future where traditional banking services are increasingly integrated with, or even replaced by, digital financial instruments.

Key drivers of change, such as the widespread adoption of mobile technologies and the growing penetration of internet services, have facilitated the widespread use of electronic money. This has been especially crucial in a post-2014 context, where political and economic instability led to greater public interest in alternative financial solutions. Cryptocurrencies, too, have gained traction as both an investment vehicle and a practical means of transferring value in a decentralized and secure manner. The increasing availability of mobile money and digital wallets has democratized financial services, allowing greater financial inclusion for both urban and rural populations.

However, the surge in cash surrogates has introduced significant challenges. Regulatory bodies have had to adapt quickly to ensure the stability of the financial system, minimize risks such as money laundering, and protect consumer interests. In this context, the 2021 Virtual Assets Law was a major milestone, setting the stage for more structured management of digital financial assets. Yet, further progress is required to create a balance between fostering innovation and maintaining financial system security. The issue of cybersecurity, data privacy, and transparency in financial transactions remains an ongoing concern.

From a broader perspective, the increasing reliance on digital financial systems also raises questions about the future of monetary policy. The National Bank of Ukraine, along with other financial institutions, must continue to develop strategies that incorporate digital currencies and electronic money into the national monetary framework. The possibility of issuing a central bank digital currency (CBDC) represents one of the ways in which traditional financial systems can integrate with emerging trends in digital finance.

As cash surrogates become more prominent, the long-term implications for Ukraine's financial stability and economic resilience are significant. The potential to reduce the informal economy, improve tax collection, and increase transparency in financial transactions could offer long-term benefits. However, these advantages can only be realized if regulatory frameworks keep pace with technological advancements and if consumer trust in digital financial systems is established and maintained.

In conclusion, the growth of cash surrogates represents a transformative phase in the Ukrainian banking sector. This shift is reshaping not only how financial services are delivered but also the very nature of money and value exchange. Policymakers and financial institutions must navigate this rapidly evolving landscape carefully, ensuring that innovation is encouraged while safeguarding the stability and integrity of the national financial system. The ongoing digitalization of finance in Ukraine presents a unique opportunity to enhance financial inclusion, drive economic growth, and position the country as a forward-thinking leader in the digital financial space.

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