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INSTITUTIONAL AND LEGAL FRAMEWORK OF DIGITAL FINTECH CREDIT MARKETS: REGULATORY SOLUTIONS FOR UKRAINE

Svitlana Hlushchenko[1], Yevheniy Brydun[2]

Abstract. The purpose of the article is to summarize the characteristics of regulatory approaches to the digital component of the credit market in different countries and regions and to justify the need and key areas regulation for the digital fintech component of the credit market of Ukraine like separating object for regulation. The regulatory frameworks governing the digital fintech segments of the credit markets in the United States, the European Union and Ukraine constitute the object of this research. From a methodological perspective, the study is based on an interdisciplinary approach that integrates institutional economics, financial regulation asks, and legal analysis. Comparative analysis, formal-legal and functional approach, logical-analytical generalizations are used. The empirical and informational basis of the study includes regulatory acts of the European Union, the USA, and Ukraine. The synthesis of results was conducted through scientific interpretation, enabling the formulation of conclusions and practical regulatory recommendations. The article analyzes the institutional and legal framework of the digital fintech segment of the credit market, drawing on regulatory practices in the United States, the European Union and Ukraine. Similarities and differences in regulatory approaches to the digital component of the credit market in different countries and regions are highlighted. The feasibility of separating the digital fintech component of the Ukrainian credit market as an independent object of regulatory supervision is substantiated, which provides for: a) systematization of digital credit services/products; b) functional definition of the status of digital institutions, c) regulation of the use of alternative data and AI; d) application of mechanisms for regulatory testing of fintech solutions. The proposals can contribute to improving the regulatory support for digital lending, increasing the financial stability of the market and scaling digital credit services in Ukrainian practice.

Keywords: credit market, digitalization, financial technologies (FinTech), regulatory institutions, legal regulations.

JEL Classification: G21, K30

1. Introduction

The rapid development of financial technologies has transformed credit markets, reshaping traditional lending models, institutional structures, and regulatory approaches. Modern credit markets increasingly rely on digital credit relationships, online platforms, automated decision-making, and alternative data sources, challenging traditional institutional frameworks and calling for new supervisory paradigms (Hlushchenko & Shportiuk, 2025; Kovalenko, 2023; Maiorova & Prylutska, 2018)

Today the role of fintech companies and digital platforms in credit intermediation is steadily increasing. These entities often perform core credit functions – origination, scoring, pricing, and servicing – without formal classification as credit institutions, creating regulatory asymmetries and potential risks for consumer protection and financial stability. In Ukraine, studies also point to regulatory fragmentation and a lack of legal clarity regarding the status of fintech providers (Hlushchenko & Shportiuk, 2025; Kovalenko, 2023; Maiorova & Prylutska, 2018; Pshyk & Hrudzevych, 2023).

Globally, regulatory practice is shifting from institution-based to function-based approaches, focusing on the economic role of market participants rather than their formal legal status. This approach has been implemented in the United States (Dodd–

[1] National University Kyiv-Mohyla Academy, Ukraine *(corresponding author)*
E-mail: sglush@gmail.com
ORCID: https://orcid.org/0000-0003-2649-8540
[2] National University Kyiv-Mohyla Academy, Ukraine
E-mail: yevgeniy.brydun@gmail.com
ORCID: https://orcid.org/0000-0002-8745-3306

Frank Wall Street Reform and Consumer Protection Act, 2010; Equal Credit Opportunity Act, 2024; Truth in Lending Act, 2026) and the European Union (Directive (EU) 2023/2225, 2023). Such functional regulation enhances regulatory neutrality and enables more effective management of risks arising from hybrid business models combining fintech companies and traditional banks. The literature also emphasizes the increasing use of automated credit scoring, artificial intelligence, and alternative data in digital lending. Recent research also highlights that the growing integration of AI into financial services is transforming regulatory priorities and creating new challenges related to governance, transparency and consumer protection (Vuković et al., 2025).

On the other hand, digitalization could introduce risks related to opacity, discriminatory outcomes, and data protection breaches. Legal regulation of the digital segment increasingly emphasizes transparency, explainability, and human oversight. (Directive (EU) 2023/2225, 2023; Regulation (EU) 2016/679, 2016). The digital transformation of credit markets necessitates a rethinking of regulatory approaches for digital lending.

In Ukraine, however, the regulatory framework for digital credit institutions, relationships, and algorithms remains fragmented and insufficiently systematized (Hlushchenko & Shportiuk, 2025; Kovalenko, 2023; Pshyk & Hrudzevych, 2023). Existing studies primarily address general fintech regulation or specific financial market segments, leaving the digital fintech component of the credit market insufficiently conceptualized as an object of regulatory supervision.

This study aims to characterize the institutional and legal framework of the digital fintech segment of the credit market internationally and to propose regulatory solutions for Ukraine. The authors substantiate the feasibility of isolating this segment as an independent object of regulatory supervision, including:

a) systematization of digital credit products;

b) functional definition of digital credit institutions and platforms;

c) regulation of alternative data and AI-based algorithms;

d) implementation of regulatory testing mechanisms for fintech solutions.

To achieve these objectives, the study addresses the following tasks:

– analyze regulatory approaches to digital lending in the USA, the European Union, and Ukraine from institutional and legal perspectives;

– identify key features of regulatory models for the digital component of the credit market and their differences;

– justify the feasibility of separating the digital fintech component of the Ukrainian credit market as an independent object of regulatory supervision.

2. Regulatory Approaches to Digital Credit Markets: International Experience

Digital financial technologies have transformed the traditional credit market. Digital credit relationships, new institutions, and new services are developing in the credit market. Banks and non-bank credit intermediaries are undergoing digital transformation, moving from traditional offline processes to mixed or fully automated operational algorithms. Information about participants in credit relationships is becoming more transparent, and credit scoring is increasingly automated, including the use of artificial intelligence in scoring algorithms.

These changes create a need to modernize regulation and supervision in credit markets. Regulatory attention now includes:

– the legal framework for digital institutions, services, products, and technologies;

– prudential supervision of digital institutions, their financial stability, and digital credit relationships;

– information transparency and consumer protection, among other issues.

This section examines examples from international practice concerning the legal and regulatory foundations of digital credit services.

Digital financial technologies are mainly applied in short-term lending and are reflected in the development of new institutions in the credit market. Therefore, we highlight regulatory characteristics by regulatory institutions and legal rules, focusing on these segments. The regulation of new digital credit market institutions, particularly online peer-to-peer lending platforms, is illustrated using the example of the United States. The regulation of traditional short-term consumer credit services, integrated into digital delivery formats, is summarized using the example of the European Union.

In the United States, rules and institutions for digital lending and digital credit market institutions operate at both the federal and state levels. There is no single national regulator for digital lending, and a "dual supervision model" is applied. At the federal level, consumer protection and credit service standards are regulated. At the state level, licensing procedures, cost limits (interest rate caps), contractual requirements, and debt collection practices are regulated.

National regulatory institutions include the Consumer Financial Protection Bureau (CFPB) (Consumer Financial Protection Bureau, n.d.) and institutions responsible for banking regulation and supervision, mainly due to cooperation between online lending platforms and partner banks.

The Consumer Financial Protection Bureau (CFPB) is the main regulator in the online consumer lending sector, including online platforms (Dodd–Frank Wall Street Reform and Consumer Protection Act, 2010). It is responsible for:

– developing disclosure standards for credit terms (Truth in Lending Act, TILA);

– supervising compliance with laws;

– examining platforms that provide consumer credit services;

– issuing guidance for digital fintech lending and hybrid interactions between credit platforms and other platforms or services;

– handling consumer complaints about online loans;

– monitoring fair advertising, algorithmic scoring, and preventing discriminatory practices.

The Federal Reserve System is responsible for consolidated supervision.

The Office of the Comptroller of the Currency (OCC) issues and revokes bank licenses and establishes prudential requirements for capital, liquidity, corporate governance, credit risk, and more.

State Banking Regulators provide primary prudential supervision of banks at the state level.

The Federal Deposit Insurance Corporation (FDIC) provides deposit insurance and supervises banks, which directly affects the stability of the banking system and the ability of banks to lend to consumers and businesses.

The Federal Trade Commission (FTC) supervises fair competition and marketing practices. It reviews online lenders' advertising, prevents misleading practices, and can fine fintech companies for false information or manipulative behavior.

At the state level, each U.S. state has its own financial regulator that controls licensing, interest rates, consumer credit rules, and debt collection practices.

For example.

In California, the regulator is the California Department of Financial Protection and Innovation (DFPI), which licenses non-bank lenders and fintech companies and regulates peer-to-peer lending and money transfers.

In New York, the regulator is the New York State Department of Financial Services (NYDFS), which licenses lenders and supervises interest rates and advertising.

In Texas, the regulator is the Texas Office of Consumer Credit Commissioner (OCCC), which licenses lenders and supervises consumer online loans.

Regarding licensing, the United States has a single national electronic system for registration, licensing, monitoring, and reporting of financial companies across states – the Nationwide Multistate Licensing System (NMLS) (Nationwide Multistate Licensing System, n.d.). Each state keeps its independence and its own rules, while NMLS acts as a shared platform for submitting applications, updating information, and reporting.

In other words, there is no single national license for non-bank lenders, and platforms must get licenses in each jurisdiction where they lend. Some states may require a license as a financial lender, others as a money transfer platform.

Because the U.S. regulatory system is fragmented, online lending platforms often combine bank partnerships (banks have federal licenses) with multistate licenses to operate.

Bank partnership: Online platforms cooperate with a partner bank, which officially acts as the lender. The platform performs technology and marketing functions. This allows nationwide service (bank regulated federally) but creates legal risk because the bank is not the real lender.

Multistate licenses. Platforms obtain licenses as financial lenders in key states. This is more expensive but allows platforms to operate directly and at a larger scale.

In terms of legislation, the digital and peer-to-peer lending market in the U.S. is regulated by a combination of federal law (consumer credit, data protection, etc.) and state laws (interest rate limits).

Legal requirements for online credit platforms are set out in documents such as: TILA, ECOA, CFPB rules, and state regulations. Regulatory focus for fintech institutions and services includes:

a) disclosure of credit terms, including state licensing and rate disclosure requirements;

b) prohibition of discrimination;

c) protection of credit data use and transfer;

d) financial transaction monitoring (Equal Credit Opportunity Act, 2024; Truth in Lending Act, 2026).

Truth in Lending Act (TILA): Requires full disclosure of credit terms (interest rates, fees, terms) and applies to most consumer loans, including online platforms acting as lenders (Truth in Lending Act, 2026). Equal Credit Opportunity Act (ECOA): Prohibits discrimination in credit decisions, including AI-based scoring on online platforms (Equal Credit Opportunity Act, 2024).

Data protection. Requires protection of client financial data; anti-money laundering rules may require online platforms to register as money transfer providers since they store and transfer customer funds (Fedyshyn et al., 2024).

Overall, the U.S. demonstrates a decentralized-combinatory model of digital credit regulation (federal level + state level).

In the European Union (EU), there is also no single state institution regulating online lending. The European Commission issues directives that set general rules for online lending, including consumer protection, transparency, and access to digital services. Member states implement these directives into national law. National regulators in each member state ensure compliance and set rules for their markets.

Regulation operates at two levels: EU legislation (via directives) and national laws in each member state.

The European Commission sets the framework for directives, and each member state adapts them to its national laws.

For example, in short-term consumer credit under digital finance in the EU, the EU Consumer Credit Directive (CCD2) applies. The first version (CCD1) was adopted in 2008. The updated version, Directive (EU) 2023/2225 of 18 October 2023, is currently in effect (Directive (EU) 2023/2225, 2023).

Changes in legislation were driven by:

a) digitalization of the credit market and new digital loans, including microcredits and BNPL ("Buy Now, Pay Later");

b) implementation of credit relationships on online platforms and mobile apps;

c) use of AI and alternative data in credit scoring;

d) open banking practices and hybrid platform development.

CCD2 strengthens borrower creditworthiness assessment, information disclosure requirements, and introduces stricter rules for new digital products. Key requirements include:

1. Expanding types of consumer credit offered digitally, including:
- loans under €200 (previously excluded);
- BNPL products (deferred payment, no interest);
- P2P loans and other digital lenders;
- virtual cards and credit card limits.

2. Expanding regulation, adapting EU consumer credit law to digitalization, fintech models, and new short-term credit forms (Articles 2–3 CCD2). "Lender" is defined as any person or entity offering credit during commercial or professional activity, including non-bank institutions and fintech providers. "Credit intermediary" is anyone not a lender who represents a lender or assists a consumer in making a credit agreement, including online platforms (Directive (EU) 2023/2225, 2023).

3. Standardization of rules for different types of credit products: microcredits, BNPL, virtual cards.

4. Unified requirements for transparent and standardized information for all lenders and credit institutions (Standard European Consumer Credit Information, SECCI), including digital platforms. SECCI must show credit type, total amount, term, annual percentage rate, total cost, payment schedules, late payment consequences, right to withdraw, early repayment info. Platforms must provide this information before the consumer agrees to the credit. Electronic formats (interactive PDFs, mobile apps) are allowed; hiding SECCI in hyperlinks, small fonts, or multi-level menus is prohibited (Directive (EU) 2023/2225, 2023).

5. Rules against aggressive marketing (Article 7 CCD2), including manipulative practices, gamification, and emotional triggers. Article 7 aims to protect consumers from forced borrowing and impulsive decisions, especially in digital environments.

6. Strengthened borrower creditworthiness assessment: lenders must verify full financial profiles, even for small loans (€200–500), including documented income (via open banking/API). Automated scoring may only be a supplementary tool.

7. Control of AI and alternative data: CCD2 introduces transparency and control obligations for AI scoring (Article 18). AI scoring is allowed but not unconditional. Borrowers have the right to be informed if a decision was made using AI and to receive a clear explanation of the factors influencing the decision. Sensitive data (race, ethnicity, religion, political views, health, etc.) is prohibited. Lenders must ensure algorithm explainability, human review in case of refusal, and regular audits of scoring models.

In the EU, data protection is regulated by the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679, 2016), covering:
- protection of personal data (names, emails, phone numbers, passport data, IP, location, browsing history);
- data subject rights (access, correction, deletion, "right to be forgotten");
- penalties for non-compliance, including fines and reputational damage.

Recent academic studies further note that EU regulatory developments increasingly treat algorithmic credit scoring as an object of independent regulatory oversight, with particular emphasis on transparency, explainability and the protection of consumer rights in automated decision-making processes (Spindler, 2021).

In summary, the EU has a unified hierarchical directive-based model for regulating the digital credit market.

<u>Comparative Analysis of Regulatory Models in the USA and the EU</u>

The analysis of the US and EU regulatory frameworks demonstrates both convergence and divergence in approaches to regulating digital credit markets.

A common feature of both models is the transition from institution-based regulation toward a functional regulatory approach. Regulatory requirements are increasingly linked to the economic functions performed by market participants rather than their formal legal status. Consequently, fintech companies, online lending platforms and digital intermediaries become subject to regulatory oversight when they perform lending, credit assessment or intermediation functions.

Another common characteristic is the strengthening of consumer protection mechanisms. Both jurisdictions impose requirements regarding transparency of lending conditions, disclosure of credit costs, protection of borrowers' rights and prevention of discriminatory practices in credit decision-making. The growing use of alternative data and artificial intelligence in lending has also led to the introduction of additional safeguards related to explainability, fairness and accountability of automated credit assessments. These developments are consistent with broader international regulatory trends emphasizing the need for governance frameworks that address the risks associated with AI applications in financial services (OECD, 2024).

At the same time, significant differences exist between the two models. The US framework is characterized by a decentralized structure that combines federal supervision with extensive state-level regulation. Such a model provides regulatory flexibility but may create legal fragmentation and compliance costs for digital lenders operating across multiple jurisdictions.

In contrast, the EU applies a more centralized and harmonized approach based on common directives and regulatory standards. This model promotes legal certainty and facilitates cross-border provision of digital credit services within the single market. Furthermore, the EU has developed more detailed requirements concerning algorithmic decision-making, consumer rights in automated processes and the use of personal data through the interaction of the Consumer Credit Directive and GDPR.

Therefore, while both jurisdictions pursue similar regulatory objectives, they differ substantially in the institutional mechanisms used to achieve them. These differences provide valuable lessons for countries seeking to modernize their regulatory frameworks for digital lending, including Ukraine.

3. Regulatory Framework of Digital FinTech Credit Markets in Ukraine

In Ukraine, the institutional mono-regulator of the market of banking and non-banking credit services is the National Bank of Ukraine (NBU). This authority establishes the procedures and requirements for credit market participants, in particular banking and non-banking financial institutions and their services (Law of Ukraine on the National Bank of Ukraine, 1999; Law of Ukraine on Banks and Banking Activity, 2000; Law of Ukraine on Financial Services and Financial Companies, 2021).

In the legislative context, the regulation of the digitalization of the credit market covers traditional and modern regulatory acts that determine the conditions for the functioning of digital financial institutions, digital credit products and online interaction of market participants.

In this context, new objects of regulation are being formed, which include a) online lending; b) digital intermediaries of the credit market (digital credit platforms, neobanks, online microfinance lenders) (Fedyshyn et al., 2024; Zhytar, 2024).

Legal support for the functioning of these objects is formed through a system of legislative acts. In particular, the Laws of Ukraine "On Consumer Lending", "On Payment Services", "On Electronic Commerce", "On Electronic Documents and Electronic Document Management", "On Electronic Identification and Electronic Trust Services" define the legal conditions for the remote provision of financial services, the use of electronic contracts, digital identification of clients, electronic document management and secure exchange of financial data between market participants. Thus, the Law of Ukraine "Electronic Documents and Electronic Document Flow" establishes the legal force of electronic documents and regulates the procedure for their circulation (Law of Ukraine on Electronic Documents and Electronic Document Flow, 2003) The Law of Ukraine "On Electronic Identification and Electronic Trust Services" defines the legal regime of electronic identification, electronic signatures and seals, which is key for the remote conclusion of credit agreements, identification of borrowers and the functioning of automated scoring systems. In the field of electronic factoring, this law ensures the legal validity of signatures, the authenticity of transactions and confirmation of ownership of electronic documents (Law of Ukraine on Electronic Identification and Electronic Trust Services, 2017). The Law of Ukraine "On Consumer Lending" establishes requirements for disclosure of information by lenders, including in digital channels, obliging them to provide consumers with complete information about the cost of the loan, payment schedule, penalties, etc. (Law of Ukraine on Consumer Lending, 2016) The issues of using digital financial technologies in factoring transactions are also regulated by the Law of Ukraine "On Factoring" (Law of Ukraine on Financial Leasing, 2021; Law of Ukraine on Factoring, 2025).

An important step for the development of regulatory approaches is the implementation of open banking. The Resolution of the Board of the National Bank of Ukraine "On approval of the Regulation on open banking in Ukraine" determines the procedure for access by third-party payment service providers (PISP / AISP) to user accounts, the principles of interaction between open banking entities, the rules for using APIs, as well as the mechanisms for providing and withdrawing user consent (National Bank of Ukraine).

This regulatory instrument forms the technical and legal framework for data exchange between banks and fintech companies, which are actively used in credit scoring, financial services aggregators, and digital platforms.

The subjects of open banking are included:

– payment service providers for account servicing (ASPSP);

– third-party payment service providers (PISP / AISP);
– users (individuals and legal entities);
– payment service technology operators that provide data exchange infrastructure via API (National Bank of Ukraine, 2025).

The implementation of open banking will contribute to the development of financial technologies, increased competition, expansion of the range of financial services, as well as the integration of Ukraine into the European financial space.

In addition, the National Bank of Ukraine has developed and is implementing the Strategy for the Development of Fintech in Ukraine until 2025, which provides for the development of digital financial services, the integration of international standards and the implementation of innovative financial technologies (National Bank of Ukraine, 2020).

An important tool for implementing innovation policy is the creation of the Platform for Innovative Financial Solutions (a regulatory "sandbox") of the NBU, which allows testing new financial products in controlled conditions under the supervision of the regulator, ensuring a balance between the development of innovations and consumer protection. The institutional framework for the operation of the regulatory sandbox was established by Resolution No. 39 of the National Bank of Ukraine on the approval of the regulatory platform for testing innovative financial services (National Bank of Ukraine, 2023, n.d.).

The comparative analysis of regulatory practices in the United States and the European Union indicates that contemporary regulation of digital credit markets extends beyond the traditional supervision of financial institutions. Regulatory attention increasingly focuses on digital credit products, online lending platforms, alternative data usage and AI-based decision-making processes.

In contrast, Ukrainian regulation remains concentrated primarily on financial institutions and individual financial services. As a result, several important components of the digital fintech credit market have not yet been systematically incorporated into the regulatory framework.

4. Regulatory Gaps in Ukraine's Digital FinTech Credit Market

The key regulatory gaps can be summarized as follows:

1. A legal classification of digital credit services and products has not yet been established.
2. Rules for licensing, registration and monitoring of digital credit market institutions have not been developed. In particular, licensing/registration rules are needed for online peer-to-peer credit platforms, as well as regulation of issues of investor (lender) and borrower protection on such platforms.
3. Standards and rules for using alternative data in automated credit scoring algorithms need to be clarified. In particular, the use of large data sets (Big Data) and alternative data about borrowers (social media data, online transactions, utility payments, etc.) may violate consumers' rights to protect their personal information and also does not guarantee accuracy and transparency in the use of data when making credit decisions. Recent studies demonstrate that alternative data derived from social media activity and digital transactions may improve credit risk assessment but simultaneously create challenges related to privacy, transparency and data quality (Alamsyah et al., 2025).
4. Rules governing the use of AI in automated credit scoring systems need to be developed. The use of AI in automated credit scoring may result in a lack of transparency, limited explainability of decisions and increased risks of discrimination. This requires control and monitoring by regulatory institutions. Currently, in Ukraine there are no specialized requirements for the use of AI credit scoring algorithms, for testing or auditing such algorithms. And so on.

The identified regulatory gaps can be further illustrated through a comparative assessment of regulatory approaches applied in the United States, the European Union and Ukraine (Table 1).

The comparison demonstrates that Ukraine has already established a regulatory foundation for digital financial services but still lacks a specialized framework for digital credit markets. The greatest regulatory gaps concern the legal status of digital credit platforms, AI governance and alternative data usage.

Table 1

Criterion	USA	EU	Ukraine
Regulatory model	Decentralized	Harmonized directive-based	Centralized institutional
Main regulator	CFPB + state regulators	National authorities under EU directives	NBU
Licensing of digital lenders	Multi-state licensing	National licensing under common rules	Not clearly defined
Consumer protection	Strong	Strong	Moderate
AI regulation	Partial	Advanced	Emerging

These gaps indicate that further regulatory development should move beyond the supervision of traditional financial institutions and focus on the specific risks and operational features of digital credit ecosystems.

5. Directions for Improving Regulation of the Digital FinTech Credit Market in Ukraine

The comparative analysis of regulatory models in the United States and the European Union demonstrates that effective supervision of digital credit markets requires a functional approach focused not only on financial institutions but also on digital credit products, online platforms, alternative data and AI-based decision-making processes. Considering the identified regulatory gaps in Ukraine, the following directions for regulatory improvement appear to be the most relevant for strengthening consumer protection, ensuring market transparency and supporting the sustainable development of digital lending.

The proposed directions correspond directly to the regulatory gaps identified in the previous section and are intended to support the transition toward a function-based regulatory model of digital credit market supervision.

Given the absence of a legal classification of digital credit services in Ukraine and the broader scope of regulated digital credit products under the EU Consumer Credit Directive, the first area of regulatory improvement concerns the classification and systematization of digital credit services and products, including:

1.1. Consumer online loans from commercial banks.

1.2. Digital card loans, including virtual credit cards, overdraft.

1.3. Online non-bank microloans.

1.4. Peer-to-peer loans on online credit platforms.

1.5. Cryptocurrency loans on blockchain credit platforms.

The Ukrainian regulatory framework does not clearly define the legal status of digital lending platforms. Comparative analysis of the regulatory approaches applied in the United States and the European Union demonstrates the importance of establishing licensing and supervisory requirements for such entities. Therefore, the second area of regulatory improvement concerns the development of licensing and prudential supervision requirements for digital credit market institutions, particularly peer-to-peer lending platforms, including:

2.1. Determination of the institutional and legal status of an online credit platform, including:

– determination of whether the platform is a financial institution, organizational or credit intermediary, settlement and payment institution, technology provider, etc.;

– requirements for minimum authorized capital, corporate governance systems, internal control;

– definition of tasks and responsibilities of online platforms;

– formation of a special register of such entities in the NBU and reporting to the regulator.

2.2. Formulate rules for risk management, protection of borrowers and creditors (investors) on an online credit platform, including:

– requirements for transparency in the provision of information on loans;

– mechanisms for protecting borrowers' personal data;

– standards for credit scoring of borrowers for all types of credit agreements (P2P, B2B, P2B, etc.);

– determination of liability in case of defaults (whether the platform bears credit risk or only plays an intermediary role);

– dispute resolution mechanisms, etc.

2.3. Implementation of financial monitoring requirements, including:

– identification of participants is mandatory for all parties;

– transaction monitoring and reporting of suspicious transactions;

– integration with state verification systems.

2.4. Formulate rules for integration with other credit market institutions, including commercial banks, non-bank credit institutions, etc.

Considering the increasing use of alternative data in digital lending and the risks associated with privacy protection, data quality and information asymmetry, the third area of regulatory improvement concerns the establishment of rules governing the collection, processing and use of alternative borrower data, including:

3.1. Issues of the quality of the received alternative data, to prevent manipulation and information asymmetry between the lender and the borrower:

– establishing requirements for the disclosure of the origin, method of collection and updating of alternative data (social networks, geolocation, transaction data, utility payments, etc.);

– introducing standards for assessing the reliability and relevance of data;

– prohibiting the use of data obtained without the user's consent or from opaque sources.

3.2. Issues of personal data protection through:

– mandatory obtaining informed consent for the use of sources;

– limiting the use of sensitive data (ethnicity, religion, health, political views).

3.3. Cybersecurity for data through:

– establishing requirements for the storage, encryption, backup and destruction of alternative data;

– assessing the risks of leakage or unauthorized access;

– using the practice of mandatory notifications of data security breaches. Recent studies indicate that the use of alternative data sources, including social media activity, transaction histories and digital behavioural data, may improve credit risk assessment but simultaneously raises concerns regarding privacy protection, transparency and data quality (Alamsyah et al., 2025).

Considering the increasing use of AI-based scoring systems and the stricter requirements introduced by the EU regarding transparency and explainability of automated decisions, the fourth area of regulatory improvement concerns the regulation and supervision of AI applications in credit assessment.

4.1. Development of rules for the use of AI in credit scoring models, standards for the transparency of AI solutions and their explainability for the consumer, the consumer's right to review the automated solution, etc.

Recent studies indicate that the growing use of AI in credit scoring requires balancing predictive performance with fairness, explainability and regulatory accountability (Bahlool et al., 2026).

4.2. Monitoring the use of AI solutions in credit scoring.

4.3. Audit of scoring AI models for signs of discrimination, quality of data sources, etc. Recent studies emphasize the importance of independent auditing and validation of AI-based credit scoring systems to mitigate risks of bias and ensure regulatory compliance (Gicić & Đonko, 2025).

4.4. Testing of AI models of the NBU (verification of credit scoring algorithms, risk assessment systems, personalized credit offers before launch).

The implementation of the proposed measures would facilitate the establishment of a coherent regulatory framework for the digital fintech credit market, improve consumer protection, increase transparency of digital lending practices and support the responsible use of alternative data and AI technologies in credit assessment.

These and other proposals for prudential regulation of the digital fintech component of the credit market may be incorporated either as separate legislative provisions or as a dedicated chapter of the Law of Ukraine "On Financial Services and Financial Companies".

These will contribute to the development of a system of supervision of digital credit products and platforms, creating the basis for the financial stability of the credit market and the expansion of digital lending.

6. Conclusion

The analysis of international and Ukrainian experience indicates a shift in regulatory focus from an institutional model toward a functional approach to credit market regulation. Under conditions of digital transformation and expended expansion of financial technologies, the objects of regulation are no longer limited to financial institutions and their financial indicators. Digital credit institutions, credit relationships, and digital services are treated as distinct and increasingly important objects of supervisory attention.

This is confirmed by the regulatory experience of the European Union and the United States.

In Ukraine, by contrast, the digital segment of the credit market remains underregulated. This study identifies four major regulatory gaps in Ukraine's digital credit market: the absence of a legal classification of digital credit products, insufficient regulation of digital lending platforms, the lack of standards governing the use of alternative data, and the absence of specialized requirements for AI-based credit scoring systems.

In the context of improving the legal framework and addressing unresolved issues related to the digital transformation of credit markets, this study substantiates the feasibility of formally distinguishing the digital fintech segment of Ukraine's credit market as a distinct object of regulatory and supervisory focus. This approach includes:

a) the systematization of digital credit products;

b) the functional definition of the status of digital credit institutions and platforms;

c) the regulation of the use of alternative data and artificial intelligence algorithms;

d) the application of regulatory testing and sandbox mechanisms for fintech solutions.

From a practical perspective, these measures would support the development of an effective supervisory system for digital credit products and platforms, creating a foundation for financial stability and the expansion of digital lending.

Author Contributions

The authors conducted a comparative analysis of international (EU and US) and Ukrainian approaches to credit market regulation under conditions of digital transformation. The study identifies a shift from an institutional to a functional regulatory approach and reveals insufficient regulatory coverage of the digital segment of Ukraine's credit market. Based on this analysis, the authors develop a conceptual framework for distinguishing the digital fintech segment of the credit market as a separate object of regulatory supervision. In particular, the authors propose: (a) a classification of digital credit products and services; (b) a functional approach to defining the status of digital credit institutions and platforms; (c) directions for regulating the use of alternative data and AI in credit risk assessment; and (d) the application of regulatory sandbox mechanisms for testing fintech solutions.

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