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Development of the Digital Financial Assets Market in Russia: Trends, Prospects, Threats and Risks of Money Laundering

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ABSTRACT

This article presents the results of a study examining the evolution and current state of the digital financial assets market in Russia. The study aims to identify key trends and development prospects for Russia's digital financial assets market, assess emerging risks and threats, and propose measures to prevent fraud and money laundering. The research was conducted using general scientific methods, including economic statistics, econometrics, and economic analysis. The following market development trends have been identified for 2023–2025: exponential but volatile growth; low trust; a structural shift towards institutional investors; increasing importance of short-term funding; market oligopolization; a simple product range; and a gradual expansion of the legal framework and market opportunities. The study substantiates several key trends: rising issuance volumes, a growing number of real-economy issuers, increased competition and differentiation among information system operators, intensifying rivalry among issuers, the emergence of a secondary market, an expanding investor base, product line diversification, and the evolution toward more sophisticated tokenization practices. The original contribution of the research lies in its comprehensive and advanced analysis of the Russian digital financial assets market. It identifies core development trajectories, categorizes emerging risks by their potential market impact, and formulates recommendations to strengthen accountability. The findings provide a practical foundation for designing regulatory frameworks and control systems for the issuance and circulation of new asset types.

Keywords: digital financial assets; digital financial assets market; risk; threat; money laundering; fraud; issuer; investor; information system operator

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INTRODUCTION

The development of digital financial assets (DFA) in Russia began in 2023. During the first year of their circulation, the Bank of Russia reported no instances of illicit activity, suggesting that the risk of money laundering and terrorist financing (ML/TF) was zero.¹ In 2025, the DFA market remained relatively small and was closely supervised by the Bank of Russia. However, with further market growth, the risk might increase, as this fairly new financial instrument can attract not only law-abiding investors but also malicious actors.

Global academic research places a strong focus on “cyber laundering” and money laundering methods through cybercurrency [1], the use of online platforms [2], and digital trade [3]. Macroeconomic trends in the regulation of money laundering involving digital assets are analyzed as well [4]. Money laundering risks in transactions with non-fungible tokens (NFTs) are assessed as high, and countermeasures are proposed [5–7].

Russian academic literature focuses on the nature and types of DFAs [8], their impact on macroeconomic indicators [9, 10], the role in international settlements [11, 12], description of the current situation and DFA market infrastructure [13], and the development of decentralized finance [14, 15]. Relatively few studies comprehensively analyze factual evidence and specific cases of DFA issuances to identify market challenges and development prospects. V. S. Stankevich and A. V. Vlasov highlight potential opportunities and weaknesses of the DFA market [16]. V. E. Ponamorenko proposes measures to improve the regulatory environment for the circulation of digital rights and digital currencies in Russia [17]. L. V. Gusarova substantiates problems in controlling DFA circulation [18].

There are even fewer interdisciplinary studies of DFAs in respect of money laundering and terrorist financing threats and risks. D. V. Antonova treats DFAs as the subject matter of money laundering crimes, pointing out controversial issues in theory and law enforcement practice when investigating such criminal acts [19]. The literature also covers global best practices for combating virtual currency misuse, including foreign equivalents of DFAs, for ML/FT, as well as approaches to assessing ML/FT risks in the context of DFA development [20].

This study integrates DFA market development with associated ML risks. The research hypothesis is that continued market expansion, aligned with current accelerating trends, may heighten threat severity and elevate ML exposure in Russia. The study aims to identify the key trends and development prospects for the digital financial assets market in Russia, to reveal the emerging risks and threats, and to develop measures to combat fraud and money laundering through digital financial assets. The object of the study is the DFA market in Russia. The subject of the study is the ways in which DFAs may be used for unlawful purposes, as well as an ML/TF instrument, by key market participants (issuers, investors, and entities forming the circulation infrastructure).

The study employs general scientific methods, methods of economic statistics (relative, average and specific values, methods for analyzing variation series), econometrics (correlation analysis), and economic analysis (vertical and horizontal).

DYNAMICS AND VOLATILITY ANALYSIS OF THE DFA MARKET

According to the Bank of Russia, quantitative indicators of the DFA and digital rights (DR) market have risen throughout its development. Nevertheless, absolute metrics demonstrate considerable instability, moving inversely to several structural and specific value indicators (*Table 1*).

¹ Bank of Russia. Report on the sectoral assessment of the risks of legalizing (laundering) proceeds from crime and financing terrorism. Public version. Moscow. 2025. URL: https://cbr.ru/Content/Document/File/180588/report_sor_od_ft_2025.pdf (accessed on 15.09.2025).

Table 1

Trends in Performance Metrics of Information System Operators

Indicator	30.06.2023	31.12.2023	30.06.2024	31.12.2024	30.06.2025
Growth in number of outstanding DFA and other DR issues, %	350.00	237.74	129.76	156.33	112.53
Growth in aggregate value of outstanding DFA and other DR issues, %	1706.51	187.32	338.17	101.41	175.18
Ratio of the aggregate value of DFA issues to the nominal value of debt securities issued in the domestic market, %	0.09	0.25	0.60	0.94	1.66
Share of DFA issue value in the aggregate value of DFA and short-term bond issues, %	10.1	16.5	25.1	40.4	51.5
Share of short-term bond (STB) issue value in the aggregate value of DFA and STB issues, %	89.9	83.5	74.9	59.6	48.5
Average value per outstanding issue of DFAs and other DRs, RUB million	487.576	223.658	391.854	306.214	457.822
Share of active users in the total number of users registered in the IS, %	11	27	15	13	23
Share of holders of DFAs and other DRs in the total number of users registered in the IS, %	11	61	45	39	33

Source: Authors' calculations based on data from the Central Bank of the Russian Federation. Key performance indicators of platform services. Domestic debt securities. URL: https://cbr.ru/vfs/statistics/ifr/platform_services.xlsx; https://cbr.ru/vfs/statistics/debt_securities/66-debt_securities.xlsx (accessed on 15.09.2025).

Key performance indicators of platform services. Domestic debt securities.

Based on *Table 1*, it can be concluded that the DFA and DR market demonstrates exponential growth both in the number of issues and in the aggregate value of outstanding issues. Activity in the DFA market depends on the key rate of the Central Bank of the Russian Federation. When the key rate was high (up to 21%), the DFA market was more attractive to issuers but less attractive to investors, who preferred more familiar instruments offering comparable returns (deposits and bonds).

The uneven growth patterns in the DFA market were primarily due to the early stage

of its life cycle, during which the influence of large issuers is significant. The decline in the value of DFAs in Q1 2024 was driven by large issuers repaying their first issues from 2022–2023, alongside the market entry of medium-sized issuers.

At the end of 2023 and the beginning of 2024, the DFA market was adversely affected by the US and EU sanctions imposed on a number of Russian IT companies, including information system operators (ISO) for DFA issuance — Atomyze LLC, Lighthouse LLC, the Masterchain platform, as well as exchanges and banks involved in the DFA circulation. This increased the risk of losses in ISO operations but did not

Table 2

Variation Metrics of Key Indicators of the DFA Market in Russia

Metric	Specific total value of outstanding DFA and DR issues, RUB million	Growth rate of the total value of outstanding DFA and DR issues, %	Growth rate of the number of outstanding DFA and DR issues, %	Share of holders of DFAs and other DRs in the total number of registered IS users, %
Arithmetic mean deviation	324.94	168.49	184.94	41.0
Range of variation	337.22	261.07	239.36	50.0
Mean absolute deviation	108.99	80.01	74.33	12.22
Variance	16,870.71	8,193.24	7,162.86	206.67
Standard deviation	129.89	90.52	84.63	14.38
Coefficient of variation, %	39.37	53.72*	45.65	35.07

Source: Compiled by the authors.

Note: * Excluding the indicator for the first period.

stop market capacity growth. In Q2 2024, the total value of issued DFAs increased more than threefold, indicating the absorption of the negative effect of external sanctions. The growth was also facilitated by the adoption of the law permitting the use of DFAs in international settlements on February 27, 2024.²

However, growth in both the number and aggregate value of issuances began to cool. The increase characteristic of the DFA market in 2022–2023 was primarily due to the low base effect. From the beginning of 2024, the growth rates started to decline, in Q1 2025 they were moderate: the number of issues increased by 10.6%; the total value of DFAs rose by 6.3%. The market revival was observed in Q2 2025, along with a 1% reduction in the key rate.

ASSESSMENT OF VARIATION OF KEY INDICATORS AND STRUCTURAL SHIFTS IN THE DFA MARKET

Calculations of variation metrics for key parameters that reflect the state of the DFA

market make the analysis more precise (Table 2).

The metrics of variation in the specific total value of outstanding issues characterize the size of the DFA market as extremely unstable. The coefficient of variation is 39.37%, which indicates that the actual market volume is subject to strong fluctuations and instability. The high volatility of the growth rates of the specific value of DFA issues, with a coefficient of variation of 53.72%, demonstrates the unpredictability of market capitalization dynamics. The growth rates of the issue value are absolutely unstable. Periods of explosive growth are followed by almost complete stagnation. Sharp fluctuations in the DFA specific value growth rate reflect unstable interest from key issuers, driven by external market factors.

The growth rate of the number of issues characterizes issuance activity in the DFA market. It is also unstable, with the coefficient of variation being 45.65% (high variability), but this is only attributable to the initial periods. Meanwhile, recent growth rates in the number of new DFA issuances remain more stable, contrasting with the

² Federal Law No. 45-FZ dated March 11, 2024, "On Amendments to Certain Legislative Acts of the Russian Federation." URL: <http://publication.pravo.gov.ru/document/0001202403110010?index=1> (accessed on 15.09.2025).

pronounced fluctuations observed in the outstanding value. This indicates that the market infrastructure is functioning and issuers continue to issue assets even under less favorable conditions.

Changes in the investor structure are clearly visible over the period under review. The first shift relates to the level of investor activity. The number of registered users of information systems (IS) issuing DFAs increased. However, their activity remained low. Despite growth in the number of registered IS users, investor participation in the DFA market showed a persistent downward trend. Analysis of the coefficient of variation for the share of DFA holders indicates moderate instability ($V = 35.07\%$). However, rather than the statistical estimation of the dispersion, it is its direction that matters far more. The indicator does not fluctuate around the mean but shows a clear downward trend from 61% to 33% over six quarters. This points not to random variations, but to a systemic problem. Despite some increase in the number of DFA holders, investors remain rather cautious, indicating insufficient trust. The initial surge of interest in DFAs did not develop into a sustainable inflow of active investors.

This is due to a combination of market, technological and regulatory factors limiting investor activity. When the key rate is high, non-qualified investors prefer more reliable and liquid instruments (deposits and bonds) to complex and risky DFAs. The absence of a developed secondary market prevents active trading. Investors are forced to hold DFAs to maturity, making them illiquid. Retail investor activity is constrained by technical barriers. Yields below the key rate of the Central Bank of the Russian Federation make DFAs unattractive for speculation. Regulatory barriers include access restrictions for non-qualified investors and relatively high thresholds for obtaining qualified investor status. Retail investors are not always able to manage their assets effectively. Non-residents avoid active DFA transactions because of the risk of secondary sanctions.

This creates the basis for a second shift in the investor structure. The number of legal entities holding DFAs is growing at rates of 133–158%, outpacing the growth in the number of individual DFA holders, which is more modest at 105–119.9%. Thus, currently the DFA market is more focused on the corporate sector than on retail.

The issue structure was dominated by the simplest types of DFAs: ruble-denominated debt instruments with floating returns in 2023, and instruments with fixed returns and maturities of up to one year (88% in 2024) in 2024.³ At the same time, the DFA market was negligible compared to the debt securities market — in Q2 2025, it accounted for only 1.66% of the total value of issued debt securities. Since DFAs are most often issued for terms of up to six months and one year (73% in 2024), their role is more significant in the short-term debt securities market. Over the period under review, the proportion of DFAs and short-term debt securities changed substantially: from 10:90 in 2023 to 51:49 in Q2 2025, indicating the growing importance of DFAs in the structure of short-term funding sources. This is the third clear structural shift in the DFA market during the analyzed period.

MARKET INFRASTRUCTURE: CONCENTRATION, COMPETITION, AND DEVELOPMENT OF SECONDARY MARKET

The structure of DFA issuers also has its own distinct features. According to the Central Bank of Russia, 189 entities issued DFAs in 2024; however, nearly two-thirds of them conducted only one minor issuance each. More than two-thirds of all issuances were concentrated among the three largest issuers, two of which are banks: Sberbank of Russia, the operator of its own Digital Assets platform, and AO “ALFA-BANK”, the operator of the A-Token platform. There are also quite a lot of companies with state participation among the

³ Bank of Russia. Review of financial instruments 2024: analytical material. https://cbr.ru/Collection/Collection/File/55196/review_2024.pdf (accessed on 15.09.2025).

issuers. Primary market development under oligopolistic conditions yields contrasting effects: it reduces investor risk exposure, yet reflects insufficient appeal for real-economy issuers. Such entities struggle to compete with financial institutions and state-owned firms in a high-rate environment characterized by a limited investor pool.

In certain industries, DFA issuance can help resolve the underfinancing challenge. In the medium term, such industries could include those with liquid, investor-transparent collateral backing DFA issuances; projects generating predictable cash flows; industries with strong investor demand for specific products or services, and active government support for the sector or anchor enterprises. Promising areas comprise agribusiness and food processing, warehousing and logistics, IT and digital infrastructure, residential and hospitality construction, and renewable energy [21]. DFA issuances for financing knowledge-intensive early-stage startups involve high risks due to unpredictable cash flows. The same applies to heavy and extractive industries requiring huge capital investments for projects with long payback periods, and service sectors without liquid tangible assets suitable as DFA collateral.

Amid the high market concentration, more than 90% of the total DFA volume was placed by companies with credit ratings in 2023–2024. The remaining 10% of the issuers did not have any credit ratings. Approximately 66% (two-thirds of the DFA primary market) had a rating ranging from moderately high (A-) to the highest (AAA) during the analyzed period.⁴

The dominance of major market participants has historically ensured a fairly high placement success rate for DFA issuances. Between August 2023 and August 2025, 240 outstanding issues, 92 redeemed issues, and 24 failed issues were placed on the Atomyze platform. This yields a 14:1 success-to-failure ratio, which remains relatively modest for a leading information

system operator. Notably, the portfolio of unsuccessful placements includes prominent firms such as TBank JSC and Digital Assets LLC, underscoring both constrained investor demand and heightened selectivity. However, as small and medium-sized enterprises enter the primary market, the share of issuers with low creditworthiness assessments and no rating is likely to increase, and consequently the number of failed issues may also rise.

The prospect of increased competition among information system operators may be associated with high risks of weakened oversight of issuers' financial condition and asset quality. As of August 15, 2025, 17 information system operators were listed in the register of the Central Bank of the Russian Federation. The infrastructure of the DFA market develops under oligopolistic conditions and extreme concentration. Approximately 90% of the issuances are facilitated by five ISOs, four of which were launched by systemically important banks (Sberbank, Alfa-Bank, Gazprombank, TBank) and one by the State Development Corporation «VEB.RF». Their share in terms of issue volume is close to 90%. They maintain a competitive edge through established client bases, brand recognition, investor trust, and vast resources. The barriers to entering the ISO register are as follows:

- strict requirements of the regulator;
- the need for deep integration with other financial market participants (banks, exchanges, depositories);
- limited market capacity and the niche nature of DFAs.

Therefore, the pace of competition growth can be assessed as moderate. Rather than a rapid expansion in the number of ISOs, the market is expected to undergo qualitative and segmental differentiation. For instance, real-sector entities entering the market may necessitate the creation of industry-specific ISOs. Specialization and a clear industry focus represent the primary growth drivers for new infrastructure participants. The key competitive advantage will belong to operators that deliver cost-efficient, rapid, and user-

⁴ Bank of Russia. Review of financial instruments 2024: analytical material. URL: https://cbr.ru/Collection/Collection/File/55196/review_2024.pdf (accessed on 15.09.2025).

friendly technology solutions for DFA issuance and management tailored to SMEs. Over time, ISOs are likely to evolve into niche platforms that better understand the specific needs of targeted issuer and investor segments than generalist market leaders.

A positive trend is the gradual development of the DFA secondary market. Moscow Exchange and SPB Exchange are included in the register of DFA exchange operators. The total value of DFA issues placed on Moscow Exchange in the first five months of 2025 exceeded 85 billion rubles (32% of the total primary DFA market during that period), representing over a fourfold increase relative to the full-year 2024 total.⁵ SPB Exchange operates on a smaller scale. In 2024, it facilitated 24 primary market issuances totaling 13.45 billion rubles.⁶

Due to the lack of working mechanisms for exchanging DFAs on exchange platforms, the secondary market is developing according to a decentralized model. A number of ISOs have created their own internal platforms for the circulation of DFAs, where transactions can be carried out by registered users (A-Token, Atomyze, Digital Assets, etc.). However, the fragmentation of trading venues across individual ISOs will hinder the development of a fully functional secondary market. As a result, market liquidity will be highly restricted, and ML risks will remain pronounced. A substantial expansion of the DFA secondary market can only be realized in the long term, contingent upon the organization of full-fledged work of exchanges as exchange operators and the lifting of international sanctions.

EXPANSION OF THE PRODUCT LINE AND ASSESSMENT OF THE RISKS OF USING NEW TYPES OF DFA

The development of market infrastructure will help attract investors, expand the product

line of DFAs, and make tokenization practices more complex. The lack of clear regulation increases the risks of DFA use for fraudulent purposes (*Table 3*).

As shown in *Table 3*, DFAs exhibiting the following characteristics are most vulnerable to illicit use:

- high degree of anonymity of owners and counterparties;
- complexity in tracing transactions and ownership chains;
- subjectivity and lack of transparency in underlying asset valuation;
- absence or weak collateral backing the digital right;
- international nature and the possibility of instant transfers.

In Russia, infrastructure risks are minimal, as ISOs and DFA exchange operators are subject to strict oversight by the regulator. They are required to comply with comprehensive AML/FT requirements. Consequently, the most significant risk factors stem from the characteristics of the underlying asset, particularly its anonymity, regulatory ambiguity, and valuation complexity [22]. In this regard, money laundering schemes inherent to the underlying asset may be employed for the legalization of proceeds of crime.

As the DFA portfolio diversifies and asset tokenization methodologies grow more complex, regulatory bodies and the operators' compliance departments must prioritize oversight of transactions and products characterized by high anonymity and subjective underlying asset valuation. These niches represent the highest exposure to money laundering and fraud risks. At the same time, DFAs backed by traditional assets traded on regulated and supervised markets carry significantly lower risks and form the basis of a legitimate DFA market.

Currently, discussions are underway regarding tokenization at both the micro-level (e.g. financing future production by an issuing enterprise) and the sectoral level (e.g. issuing utility digital rights for future

⁵ Moscow Exchange. Moscow Exchange is the leader in terms of the volume of issued digital financial assets in 2025. 09.06.2025. URL: <https://www.moex.com/n90971> (accessed on 15.09.2025).

⁶ SPB Exchange. Trading results on SPB Exchange for 2024. 31.01.2025. URL: <https://spbexchange.ru/about/news/49913/> (accessed on 15.09.2025).

Table 3

Assessing the Potential Risk of Using Various Types of Digital Financial Assets for Illegal Purposes

DFA type	Key risk factors
High risk	
DFAs certifying rights to unique digital objects (NFTs – Non-Fungible Tokens)	Subjective NFT valuation, anonymity, possibility of price manipulation (fictitious transactions at inflated prices). Absence of legal regulation in Russia
DFAs issued to finance metaverse and virtual world projects (GameFi)	Lack of ecosystem transparency, assets having value only within their own ecosystem, arbitrary valuation, and complexity of monitoring and supervision. Absence of legal regulation in Russia
DFAs certifying rights to digital currency	Pseudonymity, difficulty of identification, global nature, high liquidity and ease of asset conversion
DFAs certifying rights to intellectual property (IT) or future income derived from it	Complexity of verifying and valuing underlying IP assets, speculative pricing, and high risk of limited commercial viability
Hybrid DFAs combining characteristics of DFAs and utility digital rights	Their dual nature (financial and utility) enables value manipulation. Subjectivity in valuing the utility component
Medium risk	
DFAs issued on decentralized platforms (DeFi)	The absence of a regulated operator makes it difficult to apply traditional AML/CFT measures and increases anonymity. Absence of legal regulation in Russia
DFAs backed by illiquid tangible assets (luxury goods, antiques)	Difficulty of objective valuation and verification of authenticity and ownership rights to the asset
Low risk	
DFAs certifying rights to shares or an equity interest in a company	Strict regulation of securities issuance and circulation, a real asset and clearly identifiable income from it, issuance on a regulated platform with owner identification
DFAs certifying monetary claims	Reliable issuers, clear collateral. The risk of transaction structuring remains
DFAs backed by commodity assets (grain, metals)	The asset physically exists, is held in storage, and has an exchange or market price. The risk of issuing DFAs against non-existent commodities remains
DFAs certifying rights to real estate	Backed by a real property asset with rights confirmed in the Unified State Register of Real Estate. Risk persists for unfinished or unregistered real estate assets

Source: Compiled by the authors.

hotel stays in tourism). These instruments are explored not only for funding prospective projects but also for special purposes, such as raising capital for companies in bankruptcy proceedings.⁷ Such issuances are governed by

⁷ Moscow Exchange. Moscow Exchange is the leader in terms of the volume of issued digital financial assets in 2025. 09.06.2025. URL: <https://www.moex.com/n90971> (accessed on 15.09.2025).

multiple laws simultaneously.⁸ Nevertheless, legal uncertainty persists. Thus, tokenization of future finished products by an enterprise

⁸ Federal Law “On Digital Financial Assets, Digital Currency, and on Amendments to Certain Legislative Acts of the Russian Federation” dated July 31, 2020, No. 259-FZ; Federal Law “On Attracting Investments Using Investment Platforms and on Amendments to Certain Legislative Acts of the Russian Federation” dated August 2, 2019, No. 259-FZ, etc. SPS Consultant.

Table 4

Prospects for DFA Market Development, Risk Types, Risk Factors, and Money Laundering Schemes

Prospects for DFA market development	Risks associated with the acquisition of DFAs	ML risk factors associated with DFA use	Money laundering schemes using DFAs
Growth in DFA issuance volumes	Price risk. Liquidity risk. Legal risk. Unforeseen risks	Ease of concealing large amounts of illicit funds among the growing volume of legitimate transactions, reducing their visibility to primary and state monitoring entities	Large amounts of criminal proceeds are laundered through numerous medium-sized DFA issues and fictitious purchase-and-sale transactions or their use in settlements
Increase in the number of SMEs among DFA issuers	Credit risk. Sector risks. Liquidity risk. Issuer bankruptcy risk	Creation of fictitious entities and the engagement of SMEs in suspicious or criminal activities, facilitated by less robust internal control systems compared to large corporates	Creation of shell SMEs to issue unbacked DFAs solely for the purpose of laundering funds. Pressure on legitimate SMEs to use their corporate account details for unlawful transactions
Increase in the number of real-sector enterprises in the sectoral structure of DFA issuers		Subjective asset valuation and laundering through illiquid assets used for DFA issuance. The real sector is traditionally used to integrate criminal funds into business activity	Issuance of DFAs secured by assets whose value is artificially inflated. This allows an amount exceeding the asset's actual value to be laundered
Increase in the share of issuers with a credit rating below "A" or with no rating	Credit risk. Issuer bankruptcy risk	Concealment of the true risk level and purposes of DFA issuance. The absence of an independent creditworthiness assessment facilitates concealment of information about beneficiaries and the issuer's actual financial condition	Use of companies with low or no credit ratings as DFA issuers to avoid rigorous rating agency reviews and attract investors seeking high returns without due diligence
Growth in qualitative, niche competition among ISOs for DFA issuers, alongside segmental differentiation and specialization	Risk of losses and ISO bankruptcy. Operational risk. IT risk. Country risk for DFA issuers	Weakening of due diligence standards. In the race for clients, ISOs may streamline issuer verification procedures to offer faster and cheaper market entry	ISO beneficiaries and managers may knowingly (as a result of corruption) or unknowingly (as a result of errors or monitoring blind spots) allow questionable business models, opaque beneficiaries or insufficient DFA collateral in order to earn issuance fees
Growth in competition among DFA issuers for investors, including price competition	Liquidity risk. Issuer bankruptcy risk. Price risk. Country risk	Creation of pyramid schemes and fundraising for questionable projects. High returns may indicate high risk or fraud	Issuance of DFAs with unrealistically high returns to rapidly attract funds from new investors for the purpose of paying "returns" to previous investors. Schemes for financing unlawful activities (terrorism, extremism, etc.)
Development of a decentralized DFA secondary market and growth in the number of investors, including non-qualified investors	Market liquidity risk. Price risk. Operational risk. Country risk for DFA exchange operators	Anonymization of ownership chains and increased investor losses. Decentralized platforms make it more difficult to trace ultimate beneficiaries and transactions. Non-qualified investors are more vulnerable to fraud due to lack of experience and knowledge	Money laundering through a series of rapid DFA resales across different platforms between affiliated persons to obscure the audit trail. Targeted advertising of scam projects to nonqualified investors seeking high returns

Table 4 (continued)

Prospects for DFA market development	Risks associated with the acquisition of DFAs	ML risk factors associated with DFA use	Money laundering schemes using DFAs
Expansion of the range of issued DFAs	Legal risk. Price risk. Liquidity risk. Risks of the underlying real-world asset	Use of complex instruments to conceal the business purpose and substance of transactions. The emergence of new types of DFAs outpaces the ability of regulators and investors to assess them properly	Structuring complex transactions using instruments that are not readily understood by a broad range of users in order to disguise the true source of funds or purpose of the transaction
Development and increasing sophistication of tokenization practices		Tokenization of complex and illiquid assets (intellectual property, future revenue, equity interests, etc.) and difficulty of valuing collateral	Issuance of DFAs backed by fictitious or substantially overvalued intangible assets. Creation of complex multitier schemes in which ownership and collateral chains are deliberately obscured through the use of different jurisdictions and token types

Source: Compiled by the authors.

at the bankruptcy stage through the issuance of DFAs may create a conflict with bankruptcy legislation, potentially leading to judicial challenges aimed at invalidating these transactions. To issue such tokens, a complex legal structure is required, agreed with the insolvency officer.

The primary risk for investors in tokenizing future, rather than existing, assets is the possibility that projects are deliberately abandoned or entirely fictitious. Additionally, the high subjectivity inherent in valuing future rights creates opportunities for valuation manipulation. The lack of a secondary market further restricts investment liquidity, leaving investors unable to exit before long-term projects are completed. Tokens based on promises of future returns are an ideal instrument for pyramid schemes. The subjectivity of future asset valuation makes it possible to overstate their value and, through a chain of transactions, “launder” criminal proceeds by formally paying inflated prices for “services” or “rights.”

The increasing sophistication of tokenization practices represents an inevitable trajectory for the development of the DFA

market. To minimize the risks of using tokens for unlawful purposes, clear tokenization rules must be developed, along with stringent disclosure requirements, independent expert review and asset valuation. Investors should be aware that digital rights are not capital-guaranteed instruments and carry the risk of losing the invested funds.

MONEY LAUNDERING RISKS AND THREATS IN THE CONTEXT OF FURTHER DEVELOPMENT OF THE DFA MARKET

The results of the study are presented in *Table 4* demonstrating the prospects for DFA market development and associated risks and schemes if DFAs are used in illegal activities in Russia.

If the DFA market develops in accordance with the prospects presented in *Table 4*, the key money laundering threats may be: first, fraudulent activities by market participants and, second, corruption in the activities of ISOs and issuers. Fraudsters may use classic market schemes, including pyramid structures, fraudulent issuer bankruptcy, and other deceptive investment tactics. In 2024, an attempt to establish a pyramid scheme

using DFAs was detected.⁹ In 2025, several DFA issuers announced defaults.¹⁰ Both facts indicate insufficient control by ISOs over issuers' financial condition, as well as gaps in market regulation. At present, investments in DFAs are not subject to mandatory insurance, and neither ISOs nor issuers are required to disclose material facts concerning changes in issuers' operations and financial condition. To address such threats, it is necessary to increase market transparency and the effectiveness of assessing the financial condition of issuers.

In addition, DFAs may be used in relatively unique fraud schemes arising from their specific characteristics as a digital instrument: programmability, decentralization, anonymity and pseudonymity, global reach, and transaction irreversibility. The following examples illustrate potential DFA-related fraudulent schemes:

1. Smart contract traps are possible due to vulnerabilities or malicious programming in smart contracts. Developers create a liquidity pool for trading a new token, advertise it, and attract investments. However, they program a smart contract with hidden functions that allow them to block the withdrawal of funds by anyone except themselves, as well as to withdraw all liquidity from the pool at once. As soon as the investment amount reaches a significant volume, the scammers activate these functions and withdraw all the funds.

2. Fraud involving the use of unreliable services that provide smart contracts with data from the external world (for example, the exchange rate of an asset). Scammers may attack or compromise an oracle in order to feed false data into the smart contract.

3. Creation and promotion of "illiquid" assets. Scammers issue DFAs, which are technically valid tokens, but do not have real collateral and liquidity. They artificially create low

liquidity on one or two insignificant exchanges, manipulating the price, and advertise the asset as "promising" and "growing".

There are quite a few such schemes, and their number will grow along with the development of the DFA market, which requires proactive development of the legal framework. Regulatory authorities must establish targeted countermeasures and define specific liability regimes. To mitigate the risks described above, criminal liability should be introduced for the following actions:

- deliberate embedding of malicious code designed to embezzle investors' funds;
- intentional distortion of data, which leads to a malfunction of financial protocols and causes damages to their users;
- abuses in decentralized governance systems and malicious use of voting mechanisms;
- deliberate misrepresentation of liquidity metrics and manipulation of the value of a tokenized real-world asset;
- development and deliberate use of crypto mixers and similar tools that increase anonymity and obscure transactions, etc.

The principal task for legislators is to find an optimal balance between creating conditions for development and imposing prohibitions to combat fraud, filling legal gaps while avoiding excessive regulation that could constrain the development of the DFA market. Technologies used in DFA circulation should be applied in the interests of "invisible" control and supervision; for example, smart contracts may be used for automated transaction monitoring.

CONCLUSIONS

The study has identified the following problems in the development of the DFA market: instability and dependence on large issuers, an underdeveloped centralized secondary market, low market transparency and investor confidence, legal gaps, a high level of monopolization among both issuers and ISOs.

In the medium term, DFAs are unlikely to become a mass market and speculative asset such as digital currency, but will occupy a stable niche in the financial system, serving as:

⁹ INTERFAX. The Central Bank of the Russian Federation reported an attempt to establish a pyramid scheme on the CFA market. 05.09.2024. URL: <https://www.interfax.ru/business/979686> (accessed on 15.09.2025).

¹⁰ The digital regulation was tested by defaults. 29.06.2025 URL: <https://www.kommersant.ru/doc/7851800> (accessed on 15.09.2025).

- a corporate financing instrument, primarily for large and medium-sized businesses for specific projects and settlements;
- an alternative to short-term bonds and bank loans, for small and medium-sized businesses, in particular;
- a means of payment in international settlements to circumvent sanctions restrictions;

• an income-generating instrument for qualified investors; for non-qualified investors, DFAs will remain a complex and illiquid asset.

The key factor for realizing the market's positive growth potential lies in the capacity of regulators and market participants to enhance DFA liquidity by creating a simple and secure secondary market through stock exchanges, and to ensure accessibility to non-qualified investors through ISO online applications. Without these measures, the DFA market will

remain a closed system of corporate lending with limited growth potential.

Development of the DFA market in accordance with the prospects identified in the article entails an increase in the severity of risks faced by investors when acquiring DFAs, including both traditional risks and risks specific to the underlying asset. In the Russian context, the most significant risk factors are intrinsically linked to the characteristics of the underlying asset. In this regard, schemes typical of the underlying asset may be used to legalize proceeds of crime. The article provides a brief description of the risks of using DFAs for unlawful purposes in the context of each identified development prospect.

To mitigate such risks, it is necessary to eliminate regulatory gaps and strengthen the liability of market participants for illegal acts in the process of DFA circulation.

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