

# Cryptocurrencies: Trends, Risks, Measures <sup>1</sup>

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## **Abstract**

Cryptocurrency plays a special role in the modern world. Its capitalization is growing, yet it remains unsecured. The main risks relate to citizens' welfare, financial stability, and threats connected to illegal activities. For citizens, the primary risk is losing personal investments and borrowed funds. Cryptocurrencies can affect the national currency; increasing holdings in cryptocurrencies reduces the central bank's ability to conduct independent monetary policy and manage inflation. There is also a risk of widespread use of cryptocurrencies in criminal activity. Currently, no measures fully eliminate anonymity, creating significant challenges for anti-money laundering and counter-terrorism financing systems (AML/CFT) and complicating law enforcement operations.

**Keywords:** cryptocurrency, welfare, monetary policy, deficit, volatility, national currency, inflation, illegal activity, liquidity, energy supply

**1. Introduction.** The global cryptocurrency market capitalization increased significantly, reaching USD 2.3 trillion in December 2021. Compared to global mass assets, this is relatively modest. Cryptocurrency usage for actual payments remains limited relative to traditional payment systems. For instance, Bitcoin transactions are over 1,500 times fewer than Visa transactions. However, gradual adoption and a growing trend in investment products tied to cryptocurrency value are evident. Investment funds manage approximately USD 63 billion in such crypto assets, most of which are unsecured (Malvia, 2021).

Russian citizen engagement is already substantial and increasing. Estimates suggest that annual cryptocurrency transactions by Russian individuals could reach USD 5 billion, encompassing both purchases and sales. Exchange traffic data indicate that 7–14.5% of global cryptocurrency traffic originates from Russia.

**2. Key Risks.** The primary risks include threats to citizens' welfare, financial stability, and criminal use. For individuals, the main danger lies in losing both personal and borrowed

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funds, as cryptocurrency market values often lack fundamental support and are driven largely by speculative factors. Price growth is influenced by real-world usage and speculative desire for rapid gains, as observed in online gaming ecosystems (RBC, 2021).

Cryptocurrency volatility is often mitigated by stablecoins. However, stablecoins do not guarantee value growth for holders, as asset backing may not be fully secure. For example, a company in the United States was fined for misleading investors about the liquidity of its assets, which were later found to be riskier than advertised (Kharpal, 2021).

**3. Impact on Monetary Policy and Financial Stability.** Increasing cryptocurrency holdings undermines national currency sovereignty, limiting central banks' capacity to manage inflation and maintain independent monetary policy. This may result in higher interest rates, reduced financing for the real sector, and increased borrowing costs. Capital outflows from stock markets or bank deposits in favor of cryptocurrencies can lead to lower market capitalization and liquidity issues, particularly in emerging markets, where these risks are more acute (Global Fintech Index, 2021).

**4. Criminal Use and Regulatory Challenges.** Cryptocurrencies are widely used in illegal activities, including money laundering, drug trafficking, terrorism financing, and bribery. The inability to completely remove anonymity complicates AML/CFT enforcement and law enforcement operations, effectively supporting criminal activity (BBC, 2021).

**5. Energy Consumption and Environmental Impact.** Cryptocurrency mining significantly impacts energy consumption. For example, in Russia's Irkutsk region, where energy tariffs are low, electricity usage by residents increased by an estimated 60% in part due to mining. Mining also contributes to a larger carbon footprint, hindering carbon neutrality efforts and creating potential energy supply risks (Forbes, 2021). Mining additionally generates shortages of graphics cards and software, affecting global prices and infrastructure for trading and investment.

**6. Proposed Measures.** The Bank of Russia suggests the following regulatory measures:

1. Establish liability for violations of existing laws governing cryptocurrency use as a payment method.
2. Prevent the domestic issuance of cryptocurrency and penalize violations.
3. Prohibit financial institutions from investing in cryptocurrencies and using domestic financial infrastructure for such operations.

Additional risk monitoring measures include:

- Enhancing international information-sharing agreements to track Russian clients' crypto operations.
- Discussing cryptocurrency risk monitoring on international platforms (FSB, IOSCO).
- Regularly obtaining transaction data from foreign payment systems regarding Russian residents' crypto purchases.

- Organizing information exchange between the Federal Tax Service, the Bank of Russia, and Rosfinmonitoring.

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