Uncover risks and opportunities in Virtual Assets

Cense

Introduction

Virtual Assets

are experiencing a swift and expansive evolution, propelled by a combination by a combination of influential factors:

- **Regulatory Clarity Across Jurisdictions:** Several regions worldwide are establishing clearer regulatory frameworks, fostering a more secure and legally defined environment for Virtual Assets,
- **Engagement of Established Financial Entities:** A significant boost in the adoption of Virtual Assets is also driven by the increasing involvement of traditional financial institutions and public companies. Their participation not only lends credibility but also influences market sentiment, offering reassurance to retail investors and facilitating wider acceptance, and
- **Accessibility to Diverse Economies:** The reach of Virtual Assets extends significantly into emerging economies, and nations with underdeveloped financial infrastructures. Their ease of access presents a viable alternative to conventional financial systems, opening new avenues for economic participation and growth.

However, the adoption of Virtual Assets does come with challenges, especially relating to the perception of Anti - Money Laundering ("AML") and Counter-Terrorist Financing ("CTF"), since Traditional Financial Institutions have revisited their long-standing operating models to comply with the provisions of the abovementioned regulation to mitigate reputational and regulatory risk.

The future of Virtual Assets will depend on the flexibility and propensity of financial institutions, and the Virtual Assets segment in general, to foster the development innovative technologies to better address these challenges.

This whitepaper will uncover how Financial Institutions can stay competitive and access Virtual Asset related customers with ease while maintaining compliance with evolving regulations.

Virtual Assets: Emergence, Risks, and Opportunities

The Emergence of Virtual Assets

The concept of Virtual Assets, as the financial market understands them today originated in the late 20th century. In 1983, David Chaum introduced the revolutionary concept of combining transaction transparency with user anonymity through "Blind signatures." This laid the groundwork for what would become a significant shift in digital transactions.

The real turning point came in 2008 with the introduction of Bitcoin, described in a seminal whitepaper as the world's first practical decentralised Virtual Asset. This sparked a wave of similar assets, such as Litecoin and Peercoin, leveraging cryptographic techniques. However, the initial enthusiasm faced a reality check during the crypto winter of 2021, leading to a staggering €2 trillion loss in virtual asset value. This period highlighted the volatile nature of these assets, driven by factors such as the lack of intrinsic value and challenges faced by stablecoins.

Challenges and Threats in the Virtual Asset Ecosystem

Unbacked Virtual Assets often lack inherent value and are marked by high volatility, making them unsuitable as stable means of payment. For instance, Bitcoin's volatility is significantly higher compared to traditional assets like stocks or gold. The FTX Exchange crisis exemplified the high concentration of risk in the crypto market, revealing issues of liquidity and solvency due to poor risk management practices.

The Dark Side of Virtual Assets

With the surge in popularity of virtual assets, there has been an unfortunate rise in their illicit use. The anonymity and decentralisation that make Virtual Assets appealing also render them attractive for activities like Money Laundering, terrorist financing, and fraud. Financial institutions face immense challenges in identifying the parties involved in these anonymous transactions, especially given the lack of identifying information on blockchain ledgers.

Three main features make Virtual Assets vulnerable to Money Laundering risks:

- Anonymity;
- Traceability; and
- Decentralisation.

Table 1, presented below, illustrates how Virtual Assets can be exploited for activities such as Money Laundering and Terrorist Financing, leveraging their inherent characteristics.

Placement	Layering	Integration
Ability to create an anonymous or pseudonymous wallet with minimum or no cost.	Easy transfer of funds between wallets.	acceptance of Virtual Assets by goods and service sellers.
Low risk of placing proceeds of illicit activity.	Conversion into different types of Virtual Assets across borders, or into fiat currencies.	Rapid development of the Virtual Assets markets due to institutional players entry, liquidity and large-scale integration of the markets.
	Unregistered ICOs under control of criminals.	

Table 1: Features of Virtual Assets in the Money Laundering Process

In addition to the above, according to Limba et al. (2019) blockchain technology can be utilised as critical infrastructure for prospective cyber threats, as described in **Table 2**, below.

[1] *Limba, T. (2020). Cryptocurrency and national security: peculiarities of interaction. https://etalpykla.lituanistika.lt/object/LT-LDB-0001:J.04~2020~1618838699464/*

Virtual Assets as an infrastucture for criminal activity	
Tool for criminal activity	> Platform for dealing in illegal substances and illegal trade. > Tax Evasion: Money Laundering, Money Layering and Money Transit.
Object of criminal activity	> Money Theft; > Criminal Fraud Activity; > Corruption.
Threats to Economic Security	
Direct Form	> Illegal Trade Activity; > Tax Evasion: Illegal finance (banking), Money Laundering, Tax Fraud and Money Transmit. > Corruption.
Indirect Form	> Competitiveness; > Social Exclusion; > Non - transparent holdings.
Threats to Public Security	
Direct Form	> Organised Crime: Drug Trafficking, Crime - Illegal action, Money Theft, Criminal Fraud and Tax Evasion and Tax Fraud.
Indirect Form	> Terrorist Financing; > Hybrid Threats; > Threats to the objetcs of critical infrastructure.

Table 2: Virtual Assets and Threats to Economic and Public Security (Source Limba et al)

The Potential and Benefits of Blockchain Technology

Despite these challenges, blockchain technology, the backbone of Virtual Assets, offers significant advantages. Its transparency and immutability are vital for AML and CTF efforts. Blockchain enables more straightforward transaction tracking and provides auditable records, enhancing the efficiency and effectiveness of monitoring efforts.

Furthermore, the advent of smart contracts automates compliance checks, ensuring transactions adhere to AML and CTF requirements before processing. This not only reduces the risks of illicit activities, but also streamlines regulatory

End User Onboarding and Monitoring; still a major struggle

Virtual Assets undeniably present complex challenges for the operational models of financial institutions, significantly impacting their Client Due Diligence ("CDD") and Know Your Client ("KYC") processes. The rise in fraudulent activities associated with Virtual Assets has led many financial institutions to sever ties with users engaged in these activities. This trend, often a response to mitigate risk and avoid escalating compliance costs, has also been amplified by regulatory crackdowns on major Virtual Asset Service Providers. Traditional financial institutions therefore are increasingly distancing themselves from users that interact with Virtual Assets, wary of the potential risks that could arise from their disconnection from the mainstream financial system. This cautious approach is further reinforced by banking regulators' hesitance to engage with crypto clients, especially given the intensified scrutiny by the US Securities and Exchange Commission The 2018 Thomson Reuters report on the "True Cost of Financial Crime", which gathered responses from 2,373 C-suite and senior management professionals in large organizations, revealed a noteworthy preference: 72% of these leaders opted to minimize risk by avoiding high-risk customers instead of managing the associated risks.

So, what specific challenges are financial institutions facing in providing services to users engaged in Virtual Asset-related activities?

Why are investigations taking so much time?

Current blockchain analytics solutions are primarily geared toward monitoring transactions on the blockchain and are not suitable for maintaining an economic profile of the user without a considerable amount of investigation.

The complexity is also increased when customers engaged in Virtual Asset-related transactions use multiple Virtual Asset chains and a variety of Virtual Asset Service Providers, both decentralised and centralised. These activities often obfuscate the origins and traceability of customer activity, thereby complicating the matter for financial institutions, and requiring ever-increasing effort in order to comply with AML and CTF regulations. Furthermore, customer interactions with anonymity-enhancing technologies, such as Mixers and Privacy Coins, add another layer of complexity to the traceability of their actions on the blockchain, further extending the minimum necessary investigation time required on the part of Financial Institutions.

What lieas ahead for Virtual Assets in The EU

Europe is at the forefront of establishing a regulatory framework for Virtual Assets, spearheaded by significant legislative initiatives. The Markets in Crypto Assets ("MiCA") Regulation stands out, providing a comprehensive framework aimed at fostering market growth while protecting investors. MiCA imposes strict disclosure requirements on Virtual Asset issuers and mandates rigorous security and AML protocols for Virtual Asset Service Providers.

Complementing MiCA are initiatives like the DLT Pilot Regime and the Transfer of Funds Regulation ("TFR"). The DLT Pilot Regime encourages pilot changes in the infrastructure of financial markets to facilitate trading and/or settlement based on Distributed Ledger technology. The TFR enhances financial transparency in virtual asset transactions. The TFR requires EU Virtual Asset Service Providers to collect and exchange personal data for transactions, adhering to GDPR and AML/CTF guidelines.

Recent legislative efforts in January 2024 by the European Parliament include stringent measures relating to AML and CTF, specifically by proposing a CDD requirement for Virtual Asset Service Providers when carrying out transactions amounting to €1000 or more. It also adds measures to mitigate risks in relation to transactions with self-hosted wallets. Moreover, the proposal introduces EDD measures for cross-border correspondent relationships for Virtual Asset Service Providers.

Lastly, the upcoming Crypto Asset Reporting Framework (CARF) and Directive on Administrative Cooperation (DAC 8) amendments aim to curb tax avoidance, requiring reporting and documentation of Virtual Assets. DAC 8, set to be effective from January 2026, is pending approval by the European Council.

So, how do changes in the legal framework impact the future of Virtual Assets?

Due to the implementation of the legislation related to the licensing and supervision of Virtual Assets Service Providers, it is expected that the EU will see an increase in the engagement of Virtual Assets. In addition, taking into account the implementation of the DLT Pilot Regime, several Institutional Investors may initiate the tokenization of Real Word Assets. This process has already started, but is moving slowly. In recent months, institutions like ABN AMRO and Siemens, among others, issued digital bonds for the first time on public blockchains. Global investment manager Hamilton Lane tokenized its private equity fund using the Polygon blockchain. According to Citibank, the Tokenization of financial and real-world assets could grow by a factor of 80x in private markets, and reach up to nearly $4 trillion in value by 2030.

There is no doubt that the Virtual Assets industry will continue to grow and that criminals also will attempt to take advantage of Virtual Assets to launder the proceeds of their crimes. The continued advancements in Virtual Asset technology will make it more challenging for law enforcement agencies and financial entities to detect and fight criminal activity, and ever more challenging for criminals to launder illegally obtained criminal funds.

[2] *ABN AMRO registers first digital bond on public blockchain. (n.d.). ABN AMRO* https://www.abnamro.com/en/news/abn-amro-registers-first-digital-bond-on-public-blockchain

[3] *Siemens issues first digital bond on blockchain. (n.d.).* https://press.siemens.com/global/en/pressrelease/siemens-issues-first-digital-bond-blockchain

[4] *Senior Credit Opportunities Fund via Securitize | Hamilton Lane. (n.d.).* https://www.hamiltonlane.com/en-us/news/scope-available-via-securitize

[5] *Money, tokens, and games: Blockchain's next billion users and trillions in value.* https://www.citifirst.com.hk/home/upload/citi_research/rsch_pdf_30143792.pdf

As of 2023, Central, Northern, and Western Europe together constitue the second largest virtual assets economy in the world (Chainalysis). The region accounted for 17.6% of global transaction volume between July 2022 and June 2023, and received an estimated $1 trillion in on-chain value during the same time period.

Transforming the Operations of Financial Institutions

With the impending implementation of new regulations, the time for strategic transformation within Financial Institutions is rapidly approaching. Embracing innovative and integrated technologies is paramount, whether to enable them to streamline processes for onboarding customers interacting with Virtual Assets or to offer blockchain-related financial services and products. This technological shift ensures compliance with regulatory standards and enhances operational efficiency and security within the dynamic realm of Virtual Assets.

These innovative technologies shall harness blockchain's traceability and interoperability across different chains, and engage with both Decentralized and Centralized Providers. They shall also empower Financial Institutions to identify and address anonymity-enhancing technologies used by customers, thereby minimising the time required for customer assessments, which often become convoluted within the complex reality of blockchain transactions.

Moreover, as Virtual Assets move seamlessly between self-hosted wallets and service providers focusing on the entire customer journey and funds flow, the ideal solution will expose End-Customer profitability from blockchain activities. It will align this information with existing client profiles, if available, or with any data and documentation requested by the Financial Institution.

Furthermore, these technologies must ensure data accuracy by enabling Financial Institutions to cross-check user-provided data through the blockchain(s) or centralised exchange(s) used by the customer. This safeguards against fraud as CSV exports, which are susceptible to manipulation, cannot be accepted.

Collectively, these components would empower Financial Institutions to efficiently identify and segregate high-risk clients engaged in blockchain activities, enabling more efficient resource allocation and limiting any unnecessary waste of time and effort.

Collection of Data

The journey towards achieving operational perfection in the financial sector is riddled with formidable challenges, particularly in the realm of data collection and management.

At the heart of any financial operation lies the intricate process of data collection. Financial Institutions grapple with the task of gathering data from a multitude of sources, each varying in format and often varying widely in volume. The key to

mastering this influx lies in striking a fine balance between implementing robust security measures and ensuring a seamless customer experience. This equilibrium is crucial for maintaining operational excellence. Any lapses in security or shortcomings in user experience can significantly erode customer trust and satisfaction, leading to potentially severe repercussions for financial institutions.

A critical step towards enhancing data quality and achieving consistency is the implementation of data standards, along with the adoption of industry benchmarks like SOC and ISO. However, this endeavor becomes increasingly complex in the face of the fragmentation and segregation present within a Financial Institution's ecosystem. Navigating these challenges requires a nuanced approach that not only adheres to high standards of data integrity, but also accommodates the diverse nature of the data landscape.

How might CENSE Assist in the aforementioned transformation?

CENSE strives to minimise the efforts and friction of blockchain AML/ CTF. We do this by providing financial institutions with solutions that assist in assessing and managing the risk of AML/CTF, minimising the time and resources required to investigate the transactions of end - customers. CENSE has developed innovative products that allow financial institutions to consolidate users' transactions on the blockchain through our proprietary technology. We display a complete Economic Profile of the End - Customer and their transactions on the blockchain.

Leveraging the transparency of blockchain and external analytics solutions, financial institutions can easily evaluate the AML/ CTF risks associated with prospective customers. This assessment includes examining direct and indirect interactions between the customer and illicit entities such as Sanction Wallets, High-Risk Jurisdictions and Privacy-Enhancing Technologies like Mixers and tumblers.

CENSE can assist Financial Institutions in automating several tasks, inclusive of risk assessment and client categorization, allowing for the efficient allocation of resources to the investigation ofi high-risk clients and suspicious transactions on the blockchain. CENSE's solution also help to improve operational efficiency by enabling easy assessment of client transactions, ultimately leading to an increase in client satisfaction.

What do our solutions include?

1. **List of Users Virtual Asset Wallet(s)**, along with ownership verification. Financial institutions currently face significant challenges in identifying which Virtual Asset Wallets belong to their clients, and in tracking transactions made to external counterparties. Our solution addresses this critical issue. It enables financial institutions to accurately pinpoint the Virtual Asset wallet owned by their customer(s). This is achieved through a cryptographic signing process, providing indisputable evidence that the identified Virtual Asset wallet(s) are indeed under the ownership of the respective users. This innovative approach significantly increases trust and security for users engaging with Virtual Assets.
2. **360° Know Your Customer Blockchain Data** Financial Institutions are confronted with the complex challenge of comprehending their customers' transactions and behaviors on the blockchain. Our solution offers an accessible and straightforward means for institutions to effectively view their users' activities on the blockchain, along with any associated risks. A comprehensive 360° analysis of the user can expose any direct and indirect interactions with, among others, Sanctions, High-Risk Exchange(s), Privacy Enhancement Technologies and tokens. By providing a comprehensive 360° view of the risk exposure related to blockchain activities, our solution empowers financial institutions to confidently and effortlessly engage in business relationships with users who are involved in virtual asset transactions.
3. **User Risk Assessment** Identifying all user transactions and external counterparties can accurately depict a user's risk profile, based on their blockchain activities. This capability allows financial institutions to automate the risk assessment process effectively, and, in combination with off - chain data, to create an overall risk score for each user. In generating an overall risk rating for the user, this will determine the level of due diligence required for each respective user, and the frequency at which this information should be updated.
4. **User Source of Funds and Wealth** Identifying the source and destination of funds, as well as the source of wealth, is a complex and demanding task that financial institutions must undertake both prior to and during their business relationships with customers. This task becomes increasingly challenging due to the intricate nature of blockchain technology and the interplay between Decentralised and Centralised Finance. CENSE addresses this challenge head-on. By analysing all user transactions on the blockchain, CENSE is capable of detecting a users' capital gains derived from blockchain activities and determining whether their transactions are consistent with Virtual Asset Trading. This insight offers a valuable tool for financial institutions in fulfilling their due diligence responsibilities.

Cense AG
Registered:
Commercial Register:
Canton Zug, Switzerland
Reg. Number:
CHE-334.198.597
Address:
Neuhofstrasse 22,
6340 Baar, Switzerland
Tel.:
+41 793450689
Email:
contact@cense.com

Conclusion

As we conclude our in-depth exploration, it is clear that the domain of Virtual Assets is a multifaceted one, teeming with potential yet beset with significant challenges. This whitepaper has emphasised the paramount importance of robust Know Your Client, AML and CTF regulatory frameworks. These are essential in safeguarding the integrity of financial systems amidst the rapidly evolving Virtual Asset landscape. CENSE stands as a leader in this regard, epitomising the kind of pioneering approach required in this field. As we look to the future, it is evident that the synergy of technological advancements and regulatory oversight will continue to sculpt the Virtual Asset ecosystem. The road ahead is one that requires unwavering commitment to innovation, stringent adherence to compliance, and cooperation amongst ecosystem actors. These efforts are crucial in maximising the benefits of Virtual Assets, all the while curtailing their inherent risks. It is in this context that CENSE aims to make its mark, aspiring to bolster the financial sector by navigating these complexities with adeptness and foresight.

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