

Non-custodial wallets' growing prevalence calls for investor protection

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Executive Summary



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Trading cryptoassets using a non-custodial (aka self-custody) wallet is currently outside the purview of Japan's crypto regulations. However, with NCWs likely to gain prevalence as their UIs continue to get user-friendlier, the current absence of investor protection for NCW users is a concern. Japan would be well advised to look more deeply into providing such protection instead of leaving NCW users to fend for themselves.

Not all crypto transactions are regulated in Japan

Japan's Diet passed bills amending the Financial Instruments and Exchange Act (FIEA) and Payment Services Act during its recent special session. It did so to update and strengthen cryptoasset regulations. The amendments addressed a number of issues, including fraudulent solicitation, unregistered exchanges and unsuitable investment advice. They also imposed information disclosure requirements on cryptoasset issuers and exchanges, tightened restrictions on unfair trading practices and subjected crypto exchanges to stricter regulations on custody of customer assets and maintenance of liability reserves.

NOTE

- 1) Overseas exchanges that solicit investors in Japan are subject to regulation as unregistered exchanges.
- 2) In 2025, Japanese exchanges' aggregate trading volume totaled about ¥23tn in unlevered spot trades and ¥26tn in margin trades per JVCEA data. Globally, exchanges' 2025 trading volumes totaled \$18.6tn (approx. ¥3,000tn) in spot trades and \$61.7tn (approx. ¥9,900tn) in derivative (e.g., perpetual futures) trades per CryptoQuant survey data (currency conversion rate: ¥160/\$1).
- 3) Wallets custodied by a service provider on behalf of the user are called custodial wallets or hosted wallets.

- 4) Excluding cases where withdrawals are restricted by an exchange.

However, these regulations apply only to domestic exchanges and issuers¹. Japanese residents are therefore not legally prohibited from trading of their own volition on overseas crypto exchanges², for example. DeFi transactions executed via a non-custodial wallet (NCW) likewise fall outside of the updated regulations' purview.

An NCW, alternatively referred to as a self-custody wallet or an unhosted wallet³, is a crypto wallet where the investor herself holds the private key required to trade cryptoassets on a blockchain, signs off on transactions, confirms token balances and otherwise manages her cryptoasset holdings. Investors can hold stablecoins or other cryptoassets in an NCW (at its blockchain address) through such means as transferring (withdrawing) them from an account at an exchange or acquiring them from a third party⁴.

In the DeFi space, the global volume of exchanging different cryptoassets on decentralized exchanges (DEXs) totaled \$4.7tn (¥768tn) in 2025, nearly doubling

5) The data were sourced from DefiLlama. In 2026, trading volumes are down substantially due to cryptoasset price declines.

6) DeFi participants include not only individual and institutional investors but also market makers that serve as counterparties in commercial traders' hedging transactions (thereby providing liquidity). Trading volumes for perpetual futures linked to spot prices have been growing sharply across both overseas exchanges and global DEXs.

7) Sourced from Crypto.com survey data.

from \$2.5tn in 2024⁵. DEXs' trading volume was equivalent to one-quarter of exchange-intermediated spot trading volume in 2025⁶. Other types of cryptoasset transactions include lending and repos, the latter of which are stablecoin loans collateralized by cryptoasset holdings.

NCWs' growing prevalence and risks

Ledger, an NCW provider, estimated that NCW holders accounted for some 30mn of the 400mn-strong global cryptoasset-trading population (including crypto exchanges' account holders) as of 2024. By mid-2026, the global cryptoasset-trading population had reached 700mn⁷, roughly 50mn of which would be NCW holders if their share of the total population remains constant from 2024. The NCW-holder subpopulation is hard to estimate with a high degree of confidence because people can have multiple wallet addresses, but it appears to be sizable.

However, NCW usage entails considerable risk. Forgetting a private key, failing to keep it secret or making a mistake when inputting a transfer request could result in loss of cryptoassets. Some NCW users have fallen victim to cyberattacks, armed robbery or extortion. NCW users thus face a material risk of being victimized even if they keep their private keys secure. Additionally, blockchain nodes validate requested transactions mechanically, meaning they are unable to reject transfers of cryptoassets illicitly obtained by a bad actor. If wallet activity is limited to simple transfers, users may notice their balance has suspiciously increased or decreased. It is currently difficult, however, to determine whether incoming coins resulting from DeFi transactions are linked to money laundering.

UI upgrades could turn NCWs into a mass-market technology

Adoption of NCWs in Japan was previously impeded by certain barriers, one of which was the user interface (UI). Ordinary Japanese investors wishing to use a globally popular NCW had to be proficient enough in English to comprehend the support documentation even if the NCW itself had a Japanese-language UI. To get involved in DeFi, investors have to connect their NCW to a DeFi protocol, a process without a TradFi equivalent. I have accordingly agreed somewhat with the rationale that exempting NCWs from investor protections makes sense because NCWs' use was limited to sophisticated individuals transacting at their own risk.

Today, however, the UI barrier is getting lower. A slew of tutorial articles and videos

are now available to the Japanese public. Additionally, NCW usage is trending in a different direction in Japan than overseas, where NCWs seem to be used mostly for DeFi or collectibles like NFT characters. Japan, by contrast, is promoting NCW adoption more broadly as a government policy. Various NCW use cases have been proposed in Japan, including large-scale events, school and local government functions. Once people become accustomed to using NCWs, they cease to be seen as an esoteric technology.

If other compelling use cases emerge, they may drive gradual growth in casual NCW usership. In early 2026, a high-profile token created a viral stir in Japan because it was issued in large quantities without prior registration. Such mass take-up was likely largely attributable to NCWs having become easier to use. If procedural simplification ensues as NCWs' UIs continue to improve, NCWs should become readily accessible to even retail investors. With NCWs gaining prevalence even as they remain unregulated under the FIEA, they have reached the point where regulators would be well advised to take a deeper look into the extent to which protection should be extended to NCW users.

How to ensure trust in DeFi transactions

However, bringing NCW transactions under the umbrella of investor protection (regulation) will not necessarily be easy. In the US, for example, NCWs are classified as software and their developers are generally not regulated as financial service providers⁸. Developers of the DeFi protocols to which NCWs connect have likewise not been regulated as financial service providers as long as their protocols are decentralized, autonomous software⁹. Such software has no governing person or entity to subject to regulation.

That said, NCWs are not entirely exempt from regulatory oversight. Crypto exchanges are currently required to verify the identity of the holder of any NCW that is the recipient of assets withdrawn from, or the source of assets deposited into, an account at the exchange. It is not feasible, however, to track subsequent movements of assets downstream from a customer's NCW or asset flows after a DeFi transaction. Such untrackable transactions are outside the purview of Japanese crypto regulation.

One idea that has been proposed is to create a club-like market through such means as issuing identity-verification tokens to NCWs and restricting bilateral

8) It has been noted that NCW developers could potentially become subject to regulation if they earn revenue linked to investor trading volumes through partnerships with specific DeFi providers.

9) Regulatory authorities are seeking to regulate DeFi protocols on the grounds that protocol developers control the interfaces that connect their protocols with NCWs.

¹⁰⁾ For example, an "accountable wallet" concept has been discussed and proposed on the Blockchain Governance Initiative Network (BGIN), an international forum in which I participate. Under this model, a trusted third-party entity would issue a token representing its assessment of NCW holders, enabling parties transacting in good faith to avoid taking possession of illicitly obtained cryptoassets.

trading and DeFi transactions solely to NCWs with such tokens¹⁰. The tokens would be issued by an external party and signify that the identity of the NCW's holder has been verified. Other promising ideas include deploying privacy-protection technologies or enlisting AI agents as intermediaries between counterparties to keep transaction details from leaking to third parties.

Implementation of any such reforms would entail significant costs, which in turn would necessitate a commensurate source of revenue to absorb the costs. Despite such challenges, it is advisable to come up with some sort of creative solution before the number of individuals left to fend for themselves reaches a societally problematic magnitude.

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