

From Storage to Participation:

The Rise of Active Self-Custody

Introduction

About This Report

This report examines the evolving role of self-custody and its expanding function within the crypto ecosystem.

Self-custody has traditionally been associated with security and long-term storage. This framing no longer reflects how it is used in practice. As user behavior and wallet capabilities have advanced, self-custody is increasingly integrated into everyday financial activity, supporting a broader and more continuous form of participation.

Drawing on data from more than 3,100 U.S. crypto users across multiple studies, the analysis explores how assets are managed across centralized exchanges, hot wallets, and self-custody environments. It identifies a persistent gap between how self-custody is perceived and how it is actually used, and shows how this gap shapes adoption.

The report introduces **Active Self-Custody** as a model for understanding this shift. It reflects a mode of participation in which users engage across storing, growing, and spending functions while maintaining direct control over their assets.

Grounded in behavioral data and real-world usage patterns, the report establishes Active Self-Custody as the control layer of the crypto ecosystem and establishes a clearer framework for understanding its role as participation becomes more integrated, deliberate, and user-directed.

About The Authors

Protocol Theory ■

Protocol Theory is a global consumer research and strategic insight company focused on the future of money, technology, and digital markets. Through its proprietary Growth Science™ discipline, it equips organizations with the evidence needed to understand adoption, anticipate what's next, and make confident decisions across brand, product, experience, and strategy.

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tangem

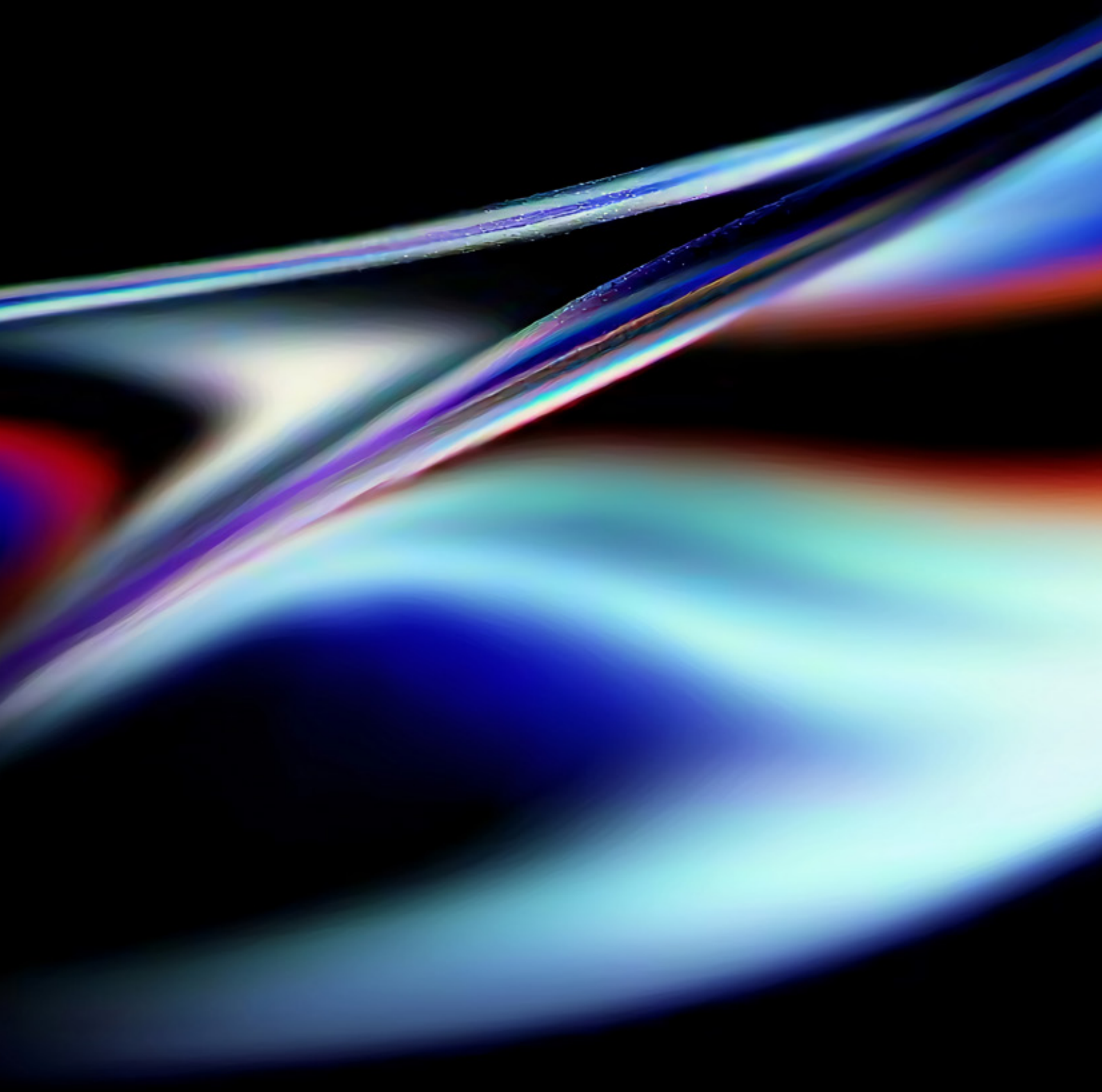
Tangem is a global provider of self-custody solutions focused on making secure digital asset ownership accessible, practical, and reliable. Through its hardware-based wallet technology, Tangem enables users to hold and manage digital assets with a strong emphasis on simplicity, durability, and security. Used by individuals worldwide, Tangem's products are designed to support long-term ownership while evolving alongside how people participate in the crypto ecosystem.

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The Self-Custody Gap: Strong Belief, Limited Adoption



The Self-Custody Gap: Strong Belief, Limited Adoption

Self-custody¹—the direct control of assets through exclusive ownership of private keys, without reliance on intermediaries—lies at the heart of the philosophical and technical foundations of cryptocurrency.

It redefines ownership by placing authority directly in the hands of the individual, and it is one of the defining features that distinguishes crypto from traditional financial systems.

Among cryptocurrency users, the concept of self-custody is not only understood but actively valued: around two-thirds consider it important, with even stronger conviction among those who frequently use self-custody tools such as cold wallets.

Self-custody is widely considered important across crypto users, with conviction strongest amongst cold wallet users.

Importance of self-custody

U.S. crypto users (n=1,128) | Top 2 Box (Very + Extremely Important)



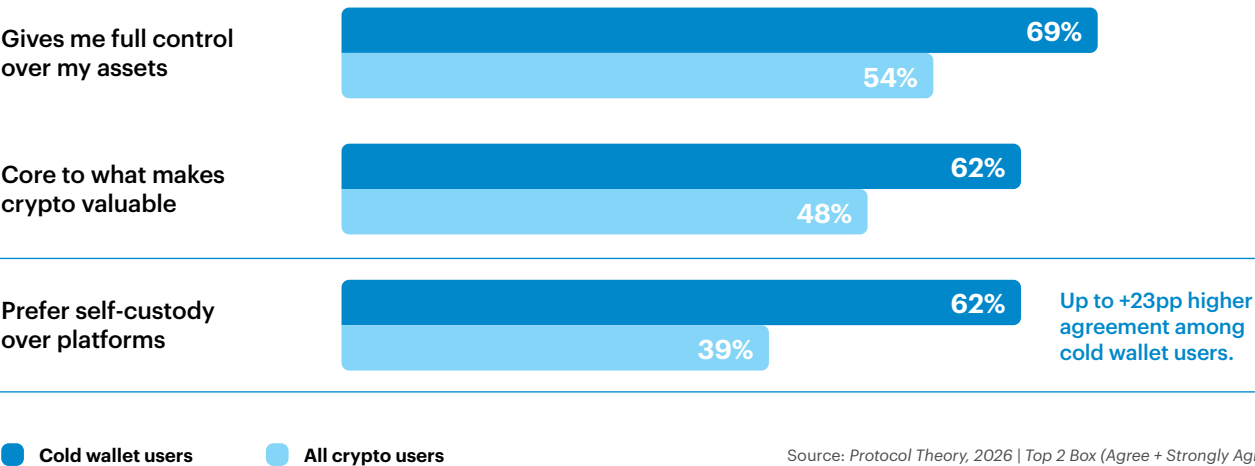
Source: Tangem and Protocol Theory, 2026 | Top 2 Box (Very + Extremely).

¹ Self-custody refers to holding and controlling one's own private keys, typically via non-custodial wallets. While both hot and cold wallets can be self-custodial, this report frequently references cold wallets as a proxy for more deliberate and security-oriented forms of self-custody, given their offline nature and stronger association with long-term asset control.

For many, self-custody also shapes how the purpose and value of cryptocurrency are understood. A substantial share view it as central to crypto's value, and most express a preference for holding assets independently rather than relying on centralized platforms.

While self-custody is widely seen as useful and valuable, many users continue to rely on centralized platforms.

Agreement with statements about the value of self-custody
U.S. crypto users (n=2,044) | Top 2 Box (Agree + Strongly Agree)

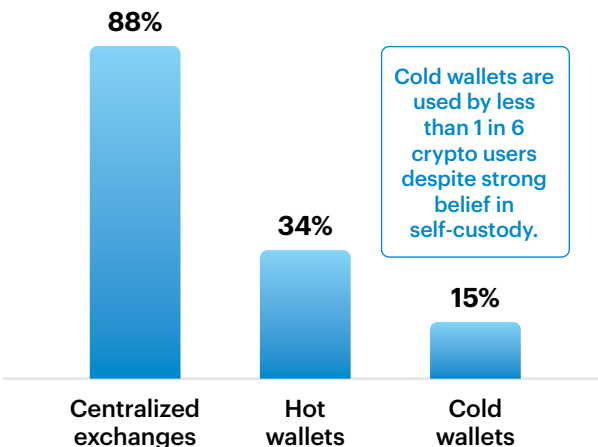


At the same time, this stated preference is not fully reflected in behavior.

In practice, a large share of crypto assets remains held on centralized exchanges, while only a small minority of users rely on cold wallets for storage. The result is a persistent gap between what users say they value and how they actually manage their assets.

Asset storage remains heavily concentrated in centralized exchanges and hot wallets, with limited use of cold wallets.

Use of crypto platforms for holding and managing assets
U.S. crypto users (n=2,044) | % selecting each option | Multiple responses allowed

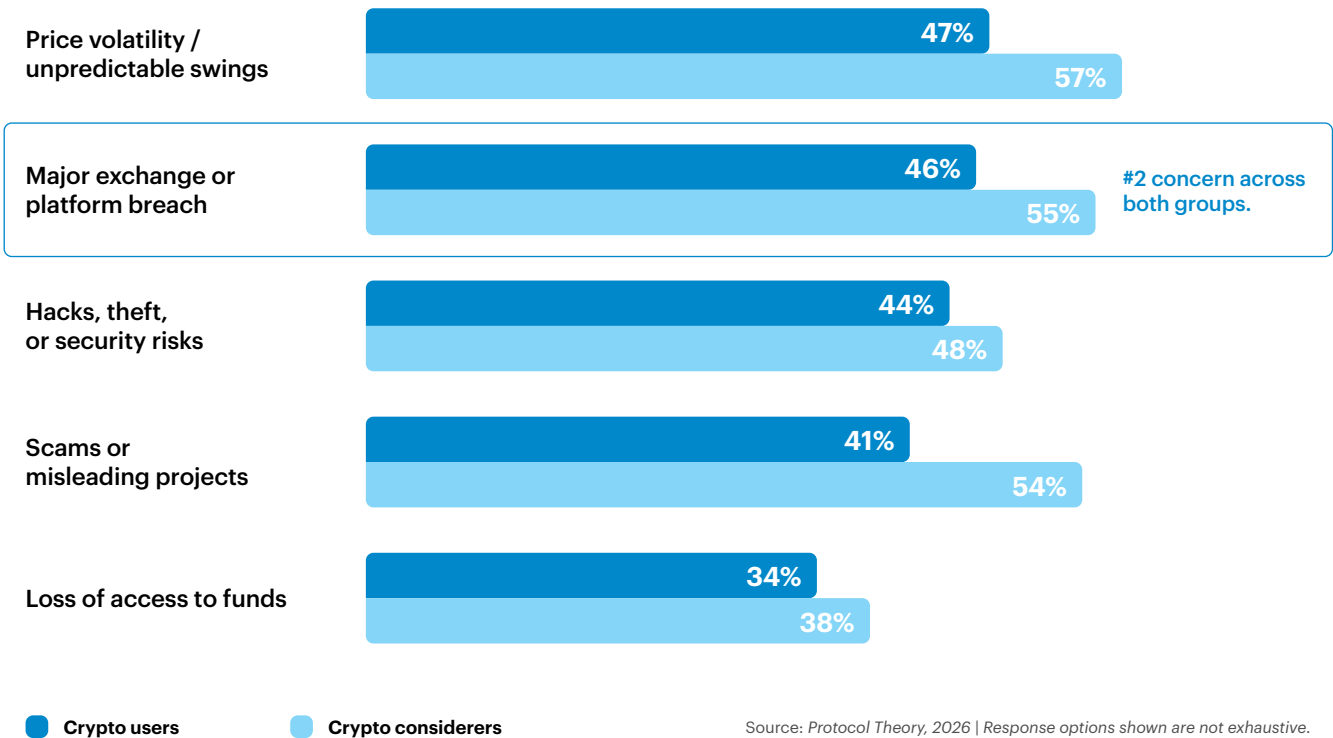


Source: Protocol Theory, 2026.

This gap becomes more striking when viewed alongside users' stated risk concerns. Major exchange and platform breaches—one of the key counterparty risks that self-custody is intended to mitigate—ranks among the top worries for both existing crypto users and those considering entering the space.

Concerns about exchange security breaches are among the most pressing, despite cold wallets being designed to mitigate this risk.

Top concerns about investing in or using cryptocurrency
U.S. crypto users vs considerers (n=2,044) | % selecting each concern



This points to a clear tension at the center of the user experience.

Self-custody is widely recognized as both foundational and valuable, with many users expressing a preference for it over reliance on third-party platforms. At the same time, most continue to store their assets in environments that depend on those same intermediaries, despite recognizing the risks involved.

This disconnect is not random. It reflects how self-custody is interpreted in practice, where inherited assumptions narrow its perceived role and limit when it is considered relevant. Understanding how these interpretations are formed is central to explaining current behavior and how adoption develops.

The Misconception Layer: How Perception Limits Adoption

The Misconception Layer: How Perception Limits Adoption

If belief in self-custody is both strong and widely shared, with many users expressing a preference for holding assets independently rather than relying on centralized platforms, why does adoption of self-custody tools such as cold wallets remain comparatively sparse?

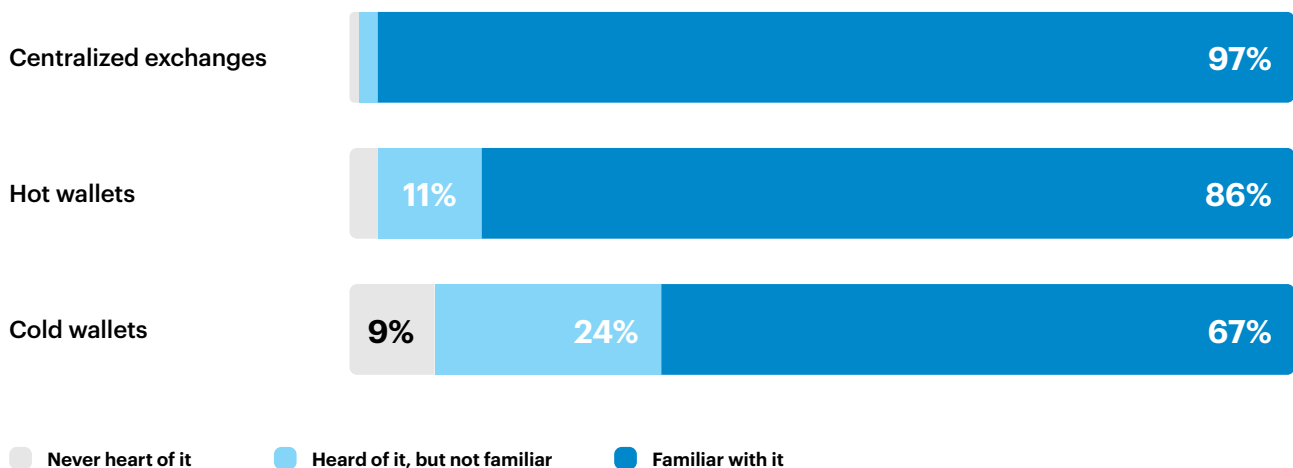
The answer lies in how these tools are understood in practice.

A useful starting point is familiarity. Centralized exchanges, which function as the default environment for most users, are widely recognized and well understood. Their functionality, use cases, and role within the broader crypto ecosystem are clear.

In contrast, while many users have heard of self-custody cold wallets, fewer have a clear understanding of how they work, what they enable, or the role they can play within everyday crypto activity. For a meaningful minority, knowledge is limited or absent altogether.

Lower familiarity with cold wallets underpins misconceptions about their role, limiting broader adoption.

Familiarity with crypto platforms and wallet types
U.S. crypto users (n=1,128) | % by familiarity level



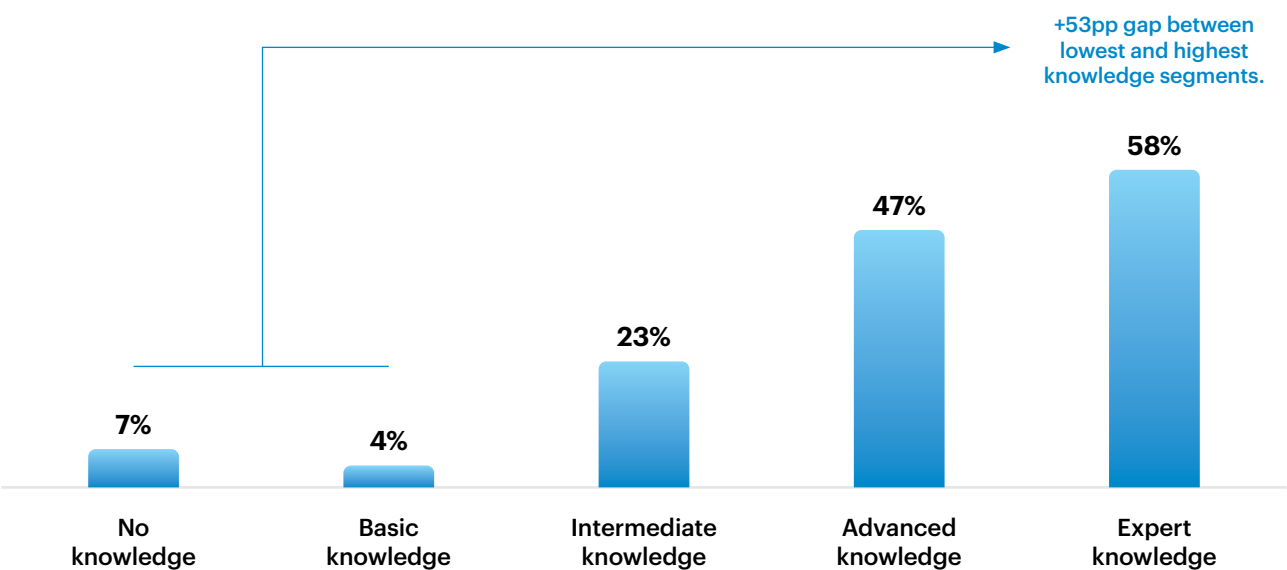
Source: Tangem and Protocol Theory, 2026 | Values <3% not labelled for readability.

This difference translates directly into behavior. Cold wallet usage increases consistently as familiarity grows, with adoption lowest among those with little or no knowledge and rising sharply among more informed users.

Adoption scales with understanding.

Cold wallet usage increases with wallet knowledge, indicating a strong link between understanding and adoption.

Cold wallet usage by self-reported wallet knowledge
U.S. crypto users (n=1,128) | % using cold wallets



Source: Tangem and Protocol Theory, 2026.

This relationship reflects more than simple awareness. Familiarity shapes how a tool is interpreted, including the range of use cases it is seen to support, the benefits it is expected to deliver, and the capabilities it is believed to offer relative to other options.

Where familiarity is limited, perceived relevance narrows.

Among crypto users who have never used cold wallets, for example, the primary barrier is not cost or complexity—it is a perceived *lack of need*.

Cold wallet adoption is constrained by perceived lack of need, driven by the belief that cold wallets are only necessary for large, long-term holdings.

Reasons for not using a cold wallet (grouped from open-text responses)

U.S. crypto users (n=743) | % mentioning each reason | Multiple responses allowed

Perceived lack of need
(misconceptions about use cases)

32%

Risk and trust concerns

23%

Knowledge and understanding gaps

19%

Cost and usability barriers

17%

Satisfaction with Current Solutions

8%

Source: Tangem and Protocol Theory, 2026.

This perceived lack of relevance is not necessarily indicative of the full extent of what cold wallets enable today, but rather a reflection of how their role has been historically framed. For many users, they have long been associated with a limited set of specific use cases, such as securing larger balances or holding assets passively over longer periods.

Within this framing, cold wallets are seen as highly situational rather than broadly applicable, which reduces their perceived relevance in more active or everyday contexts. This naturally constrains the role they are expected to play, and consideration remains limited outside of these specific established use cases. As a result, users who are actively trading, transferring, or engaging with crypto on a regular basis tend to rely on other tools or platforms—chiefly, centralized exchanges—that are perceived as more flexible or convenient.

Cold wallets are widely perceived as unnecessary for most users, reflecting beliefs that they are only needed for large, long-term holdings.

Illustrative user perspectives on cold wallet usage
Selected verbatim responses from U.S. crypto users (n=743)

Perceived lack of need for smaller holdings	Preference for convenience over security	Viewed as passive storage tools
"I don't hold enough crypto to justify using a hardware wallet."	"I prefer hot wallets for versatility and ease of access."	"Hardware wallets include limited features, as they are primarily designed for secure storage."
"I don't have enough crypto to need a physical device."	"The convenience of hot wallets and exchanges outweighs the additional security provided by hardware wallets."	"I don't really see a point in using one outside of being extra secure."
"I don't feel the need for the extra security unless I'm holding a large amount of crypto for long-term storage."	"Hardware wallets feel less practical for my needs as they require physical access, making transactions less seamless."	"I am an active trader, so it would be a hassle to have to transfer to cold storage each time. When I do have tokens I plan to hold, then I'll move to hardware storage"

Source: Tangem and Protocol Theory, 2026.

Over time, these perceptions have crystallized into an implicit **"role-based custody"** mental model of how different custody solutions are expected to function within the crypto ecosystem:

Centralized exchanges

are seen as the *convenience layer*, enabling ease of use, liquidity, and straightforward on- and off-ramps.

Hot wallets

are seen as the *activity layer*, supporting transfers, staking, yield generation, and day-to-day engagement with onchain applications.

Cold wallets

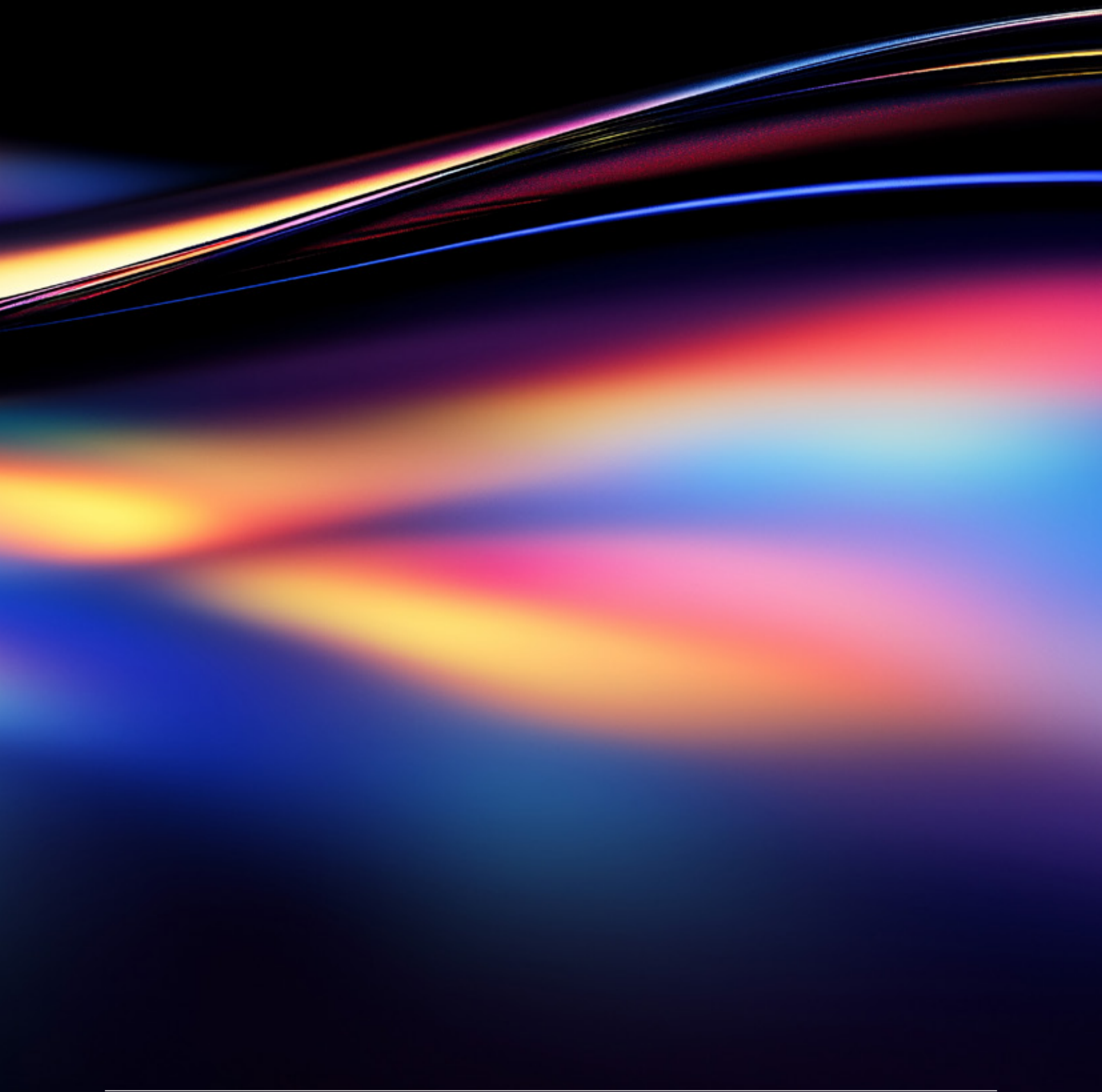
by contrast, are seen as the *protection layer*, associated primarily with asset protection and long-term storage of value.

While internally coherent and widely embedded, this model perpetuates the framing of cold wallets as narrowly applicable, understating the broader capabilities of modern self-custody tools and how they are used in practice.

Adoption is therefore constrained at the level of perception. As long as cold wallets are understood primarily as protection tools, their role remains confined to a narrow set of use cases.

This constraint is rooted in how self-custody is framed, rather than how it is used. In practice, users already engage with crypto across a broader set of activities than this model suggests. Examining how these activities are distributed provides a clearer view of where self-custody is already relevant, and where its role is understated.

How Crypto Is Used Today: Store, Grow, Spend



How Crypto Is Used Today: Store, Grow, Spend

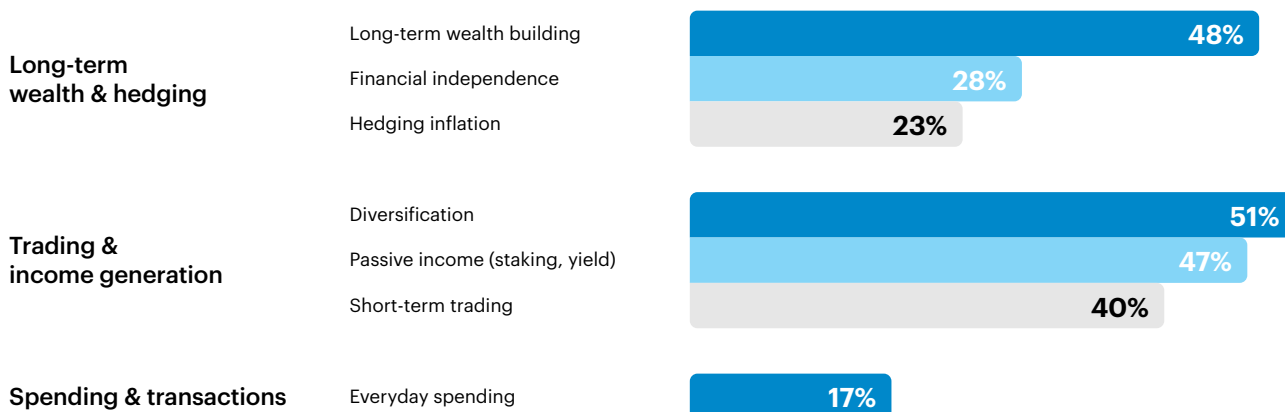
Cryptocurrency is used across a broad range of activities, spanning both traditional financial motivations and new forms of digital economic activity.

Users engage with crypto for multiple, overlapping reasons. Long-term wealth building remains a primary use case, alongside diversification and inflation hedging. At the same time, a substantial share actively deploys assets through trading and yield-generating activities such as staking. A smaller but meaningful segment uses crypto for everyday spending and transactions.

Crypto is used across spending, trading, and long-term wealth creation, reflecting a broad range of financial use cases.

Reasons for using cryptocurrency (selected responses)

U.S. crypto users (n=1,128) | % selecting each reason | Multiple responses allowed



Source: Tangem and Protocol Theory, 2026. Response options shown are not exhaustive.

A useful way to understand this range is through three core functions: **Store**, **Grow**, and **Spend**.

Store.

Users store crypto to preserve and accumulate value over time, often motivated by a desire for control, financial independence, and long-term asset protection.

Grow.

Users grow value by actively deploying assets across markets and protocols, participating in trading, yield generation, and portfolio diversification

Spend.

Users spend crypto through transfers, payments, and interactions with applications, enabling value to move fluidly within and beyond the ecosystem.

This functional framing provides a clearer view of how crypto is used in practice. It also establishes a foundation for understanding how behavior maps onto different tools within the ecosystem.

Store: Preserving and Protecting Value

A central use case for cryptocurrency remains the storage of value.

Many users hold assets with a long-term orientation, motivated by financial independence, wealth accumulation, and protection against macroeconomic uncertainty. These motivations align with established store-of-value behaviors, while introducing additional considerations around control and ownership.

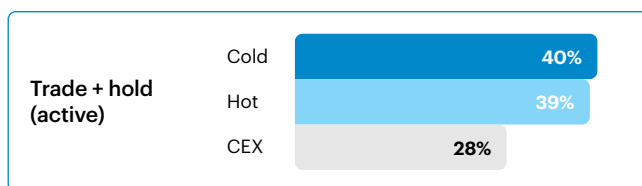
At the same time, storage is not limited to passive holding. Only a small minority of cold wallet users are passive holders, compared with a significantly higher share among those relying on centralized platforms.

Cold wallet users are more actively engaged than commonly assumed, with fewer relying solely on long-term holding.

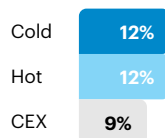
Investor behavior by wallet type

CEX vs hot wallet vs cold wallet users (U.S. crypto users, n=1,128) | % within each segment

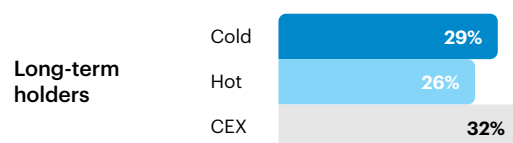
Active



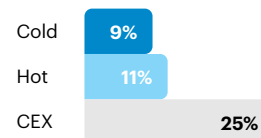
Frequent traders



Passive



Passive holders



Only 9% of cold wallet users are passive holders, vs 25% of CEX users

Source: Tangem and Protocol Theory, 2026. Response options shown are not exhaustive.

Key Implication:

Even within storage-oriented behaviors, users are not uniformly inactive. Assets may be held with a long-term intention while still being actively managed or repositioned over time.

Grow: Actively Deploying Capital

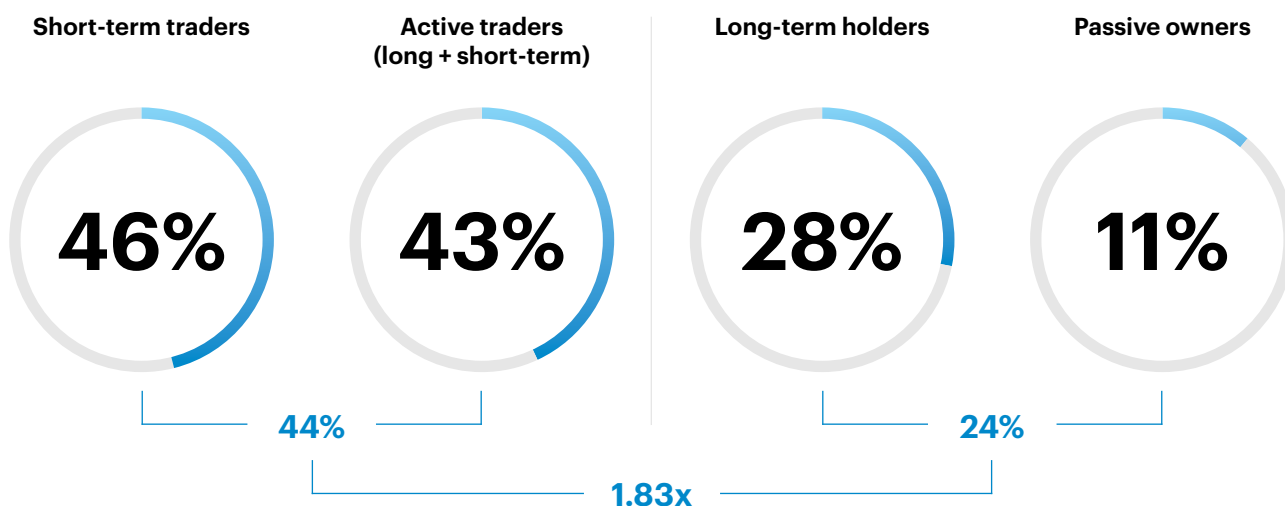
Beyond storage, a substantial share of users engage in activities intended to grow their assets.

This includes trading, staking, and portfolio diversification, all of which involve actively deploying capital across markets and protocols. These behaviors are widespread, reflecting the importance of growth-oriented use cases within the ecosystem.

Engagement in these activities is not limited to specific user segments. Cold wallet usage is more common among active participants than passive ones, with materially higher adoption among traders compared with passive owners.

Despite being positioned for long-term storage, cold wallets are more widely used by active traders than passive investors.

Cold wallet usage by investor type
U.S. crypto users (n=1,128) | % using cold wallets



Source: Tangem and Protocol Theory, 2026.

Key Implication:

Cold wallets are frequently used within active investment strategies, rather than being confined to long-term storage alone.

Spend: Enabling Transactions and Movement of Value

A third function of cryptocurrency is its role in enabling transactions, including the movement and management of value across users, platforms, and applications.

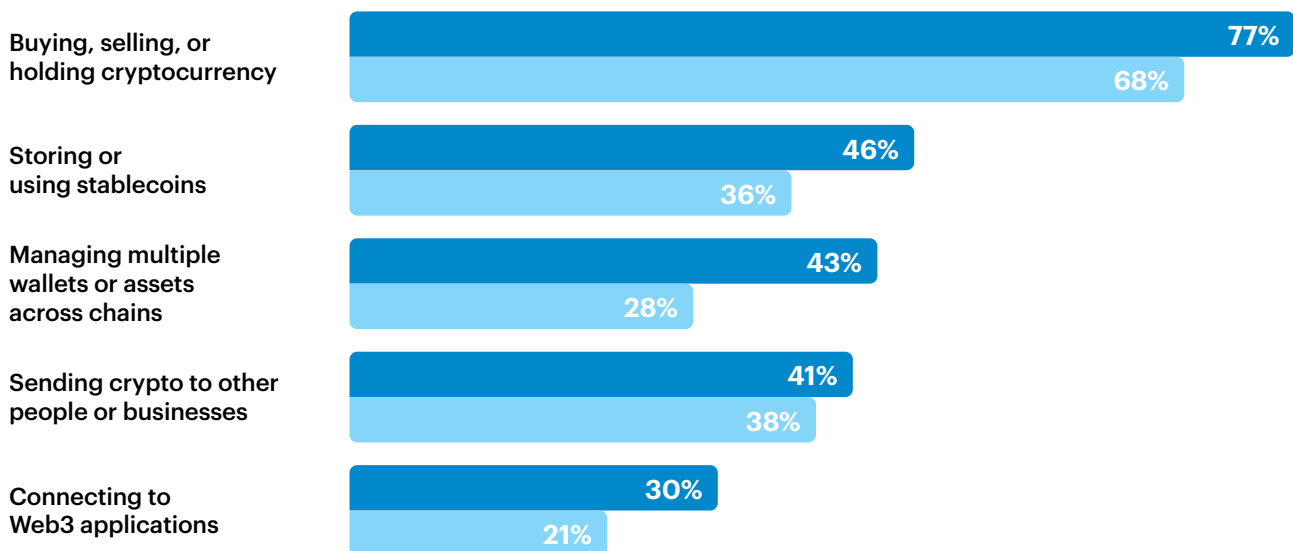
These behaviors reflect crypto's capacity to function as a medium of exchange, particularly in digital environments where traditional financial infrastructure may be less accessible or less efficient².

Cold wallets increasingly support these activities. A majority of users buy, sell, or hold assets within them, while substantial shares use stablecoins, send crypto to others, and manage assets across wallets or chains. A meaningful minority also connect to applications within the ecosystem.

Cold wallets are actively used for trading, transfers, and asset management, not just long-term storage.

Primary use cases for crypto wallets (selected responses)

Crypto users vs. cold wallet users (U.S. crypto users, n=2,044) | % selecting each use case | Multiple responses allowed



■ Cold wallet users

■ Crypto users (excl. cold wallet users)

Source: Protocol Theory, 2026. Response options shown are not exhaustive.

Key Implication:

Cold wallets are increasingly used as active interfaces for managing and moving value, not solely for long-term storage.

These patterns are not incidental. They indicate that self-custody is already operating beyond the narrow role assigned to it within prevailing mental models.

As storing, growing, and spending converge within the same environments, the distinction between storage and participation becomes less meaningful.

This requires a different way of understanding how self-custody functions within the system.

² Source: Protocol Theory and CoinDesk. (2025). *APAC Digital Asset Adoption 2025: Stablecoins, Tokenization & Integration*. Available at: <https://www.protocoltheory.com/articles/apac-digital-asset-adoption-2025>

Active Self-Custody: From Storage to Control

Active Self-Custody: From Storage to Control

The way self-custody is commonly understood no longer reflects how it is used in practice.

As shown in the previous chapter, users who hold self-custody wallets are not limiting activity to passive, long-term storage. They are actively trading, managing assets, and participating across a wide range of financial activities. This behavior is consistent, observable, and already established across the market.

This shift marks the emergence of **Active Self-Custody**—an emerging mode of engagement in which users participate across storing, growing, and spending functions while maintaining direct control over their assets. It reflects how self-custody is already being used and provides a more accurate framework for understanding its role within the crypto ecosystem.

This shift is enabled by how the underlying technology has evolved.

Historically, security and activity were separated across different environments, where assets were held in one place and deployed in another. Early self-custody wallets were designed for secure storage with limited interaction, and their primary role was to safeguard assets over time.

Current implementations integrate these roles. Self-custody wallets now support trading, staking, asset management, and access to third-party applications within a single secure environment. Access to protocols is more seamless, integrations are broader, and actions are executed without relinquishing control.

Self-custody wallets: From Passive Storage to Active Participation

Dimension	2018-2020 (Then)	2024-2026 (Now)
Core Role	Secure storage device for long-term holding	Secure interface for ongoing onchain participation
Primary Use Case	Store, send, receive	Store, trade, stake, swap, interact
User Behavior	Assets largely held idle	Assets actively deployed across ecosystems
DeFi & DApp Access	Limited, indirect, often complex	Direct access via wallet interfaces, connectors, and native apps
Integration Layer	Fragmented, wallet-dependent, technical	Broad integrations across wallets, chains, and platforms
Transaction Types	Basic transfers and signing	Smart contract interaction, staking, swaps, NFT activity
Multisig & Advanced Custody	Available but niche and operationally complex	More accessible, integrated, and user-friendly
Security Model in Practice	Cold storage isolated from activity	Secure signing layer for active usage
User Experience	High friction for non-basic actions	Increasingly seamless across devices and apps
Mental Model	“Self-custody wallet = vault”	“Self-custody wallet = control layer”

This evolution redefines how self-custody functions within the system.

Rather than operating as an isolated storage mechanism, active self-custody operates as the *control layer* governing how assets are accessed, deployed, and moved. Control extends beyond ownership to include transaction authorization, position management, and interaction with applications.

Within this structure, storing, growing, and spending are coordinated through a single control point: the **active self-custody wallet**. Ownership, authorization, and execution are unified within one interface, allowing users to manage assets and participate across the ecosystem without fragmenting control.

The three pillars of Active Self-Custody

A mode of engagement in which users participate across storing, growing, and spending functions while maintaining direct control over their assets.

Ownership, authorization, and execution are consolidated within one interface, enabling asset management and participation without fragmenting control.



Storing

provides the security foundation, ensuring assets remain under direct ownership.



Growing

is executed through direct interaction with markets and protocols, without transferring custody.



Spending

is integrated into the same environment, enabling assets to move across applications and users as part of ongoing activity.

This has system-level implications.

Self-custody is becoming central to how value is managed. It connects asset protection, capital deployment, and transaction execution within a single system, embedding security within activity rather than separating it from use.

In this context, self-custody is no longer defined by where assets are held. It is defined by how they are controlled and used.

The Experience Gap: What CEX Users Get Wrong About Self-Custody

The Experience Gap: What CEX Users Get Wrong About Self-Custody

While earlier chapters established that adoption is constrained by familiarity and perceived relevance, a further constraint emerges when perception is tested against direct experience.

Users who rely exclusively on centralized exchanges form their understanding of self-custody based on inference rather than usage. In contrast, users who hold self-custody wallets evaluate it through experience. These perspectives diverge systematically.

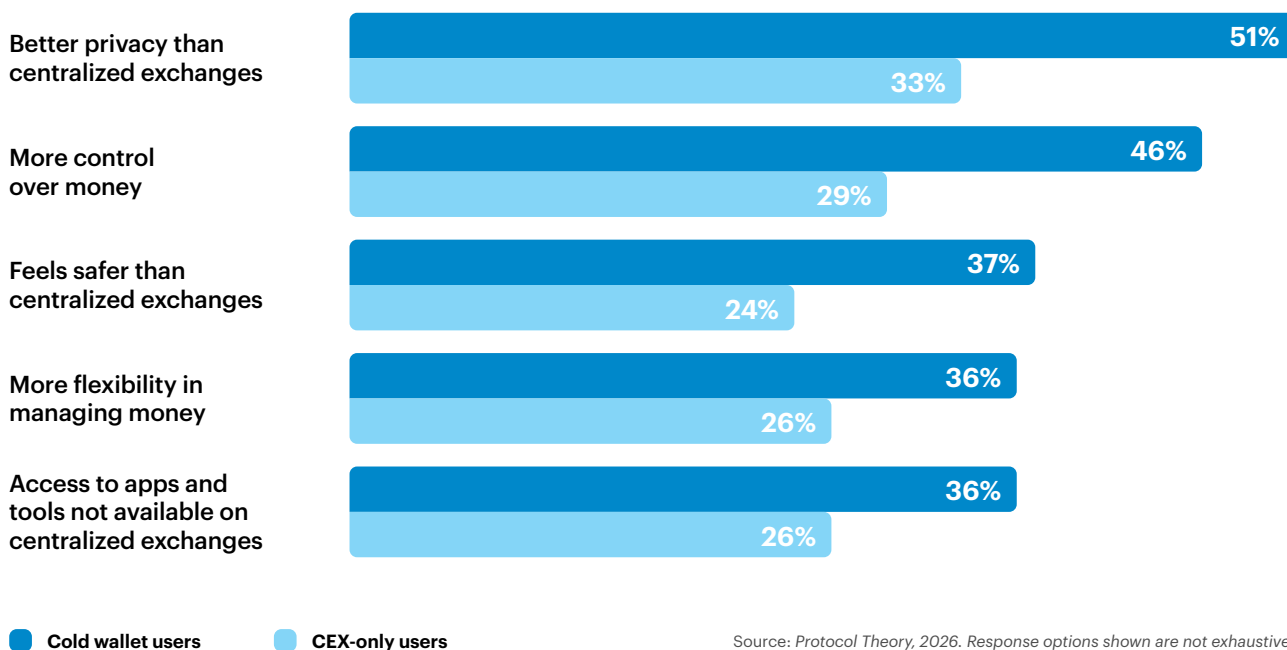
Benefits Become More Evident Through Use

Across a range of core attributes, users of self-custody wallets express stronger agreement with the benefits of self-custody than those who have not used them.

They are more likely to associate self-custody with improved privacy, greater control, increased safety, and higher flexibility. They are also more likely to recognize the expanded set of tools and applications that become accessible when assets are managed through modern self-custody wallets.

Cold wallet users consistently perceive greater benefits than non-users across privacy, control, safety, and flexibility.

Perceived benefits of self-custody vs centralized exchanges
U.S. crypto users (n=2,044) | % agreeing with statements



Perceived Difficulty Is Concentrated Among Non-Users

A similar divergence appears in perceptions of ease and accessibility.

Users with direct experience are significantly more likely to view self-custody solutions as approachable, testable, and possible to engage with incrementally without fully switching away from centralized platforms. They also see them as natural extensions of the tools they already use.

Perceived difficulty of self-custody is driven by non-users, as the usability gap disappears among those with direct experience.

Perceived ease of adopting self-custodial wallets

U.S. crypto users (n=2,044) | % agreeing with statements

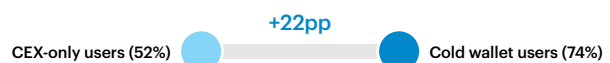
Feel like a natural extension of the tools I already use



Possible to test with small amounts and limited risk



Easy to try without fully switching



Source: Protocol Theory, 2026. Response options shown are not exhaustive.

Misperception Is Most Pronounced in Safety, Flexibility, and Access

The experience gap is most visible in areas where self-custody enables active participation.

Non-users are less likely to recognize the degree to which self-custody provides flexibility in managing assets, access to applications beyond centralized exchanges, or a sense of safety derived from direct control. In contrast, users consistently report higher agreement across these dimensions, indicating that these benefits are more apparent once experienced.

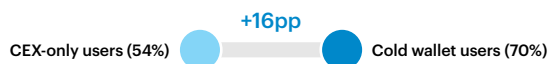
This is particularly notable in the context of security. Concerns about counterparty risk and platform breaches are widely recognized across the market, yet non-users remain less likely to view self-custody as a safer alternative in practice.

Non-users significantly underestimate the benefits of self-custody, particularly in security, flexibility, and access.

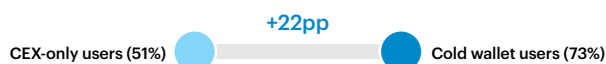
Perceived benefits of self-custody vs centralized exchanges

U.S. crypto users (n=1,128) | % agreeing with statements

More flexibility in managing money



Access to apps and tools beyond exchanges



Feels safer than centralized exchanges



0%

50%

Source: Tangem and Protocol Theory, 2026. Response options shown are not exhaustive.

Experience Functions as a Mechanism for Updating Perception

100%

Direct interaction plays a central role in aligning perception with reality.

Where experience is absent, self-custody wallets continue to be interpreted through the prevailing *role-based custody* mental model: secure, but also comparatively complex, inconvenient, and inflexible. Centralized exchanges remain associated with convenient access and ease of use.

100%

With direct experience, benefits become clearer, usability becomes more apparent, and perceived barriers diminish. Exposure allows perception to adjust toward how self-custody functions in practice.

This progression does not fully remove friction.

Even when users recognize the relevance of self-custody and understand how it can be used, managing assets directly introduces a different relationship with control—one where outcomes depend more closely on individual actions.

At this point, the constraint changes.

The question is no longer whether self-custody is relevant or usable, but whether users feel capable of taking responsibility for it. This introduces a different barrier, centred on confidence rather than understanding.

The Confidence Barrier: Trust and Control in Self-Custody



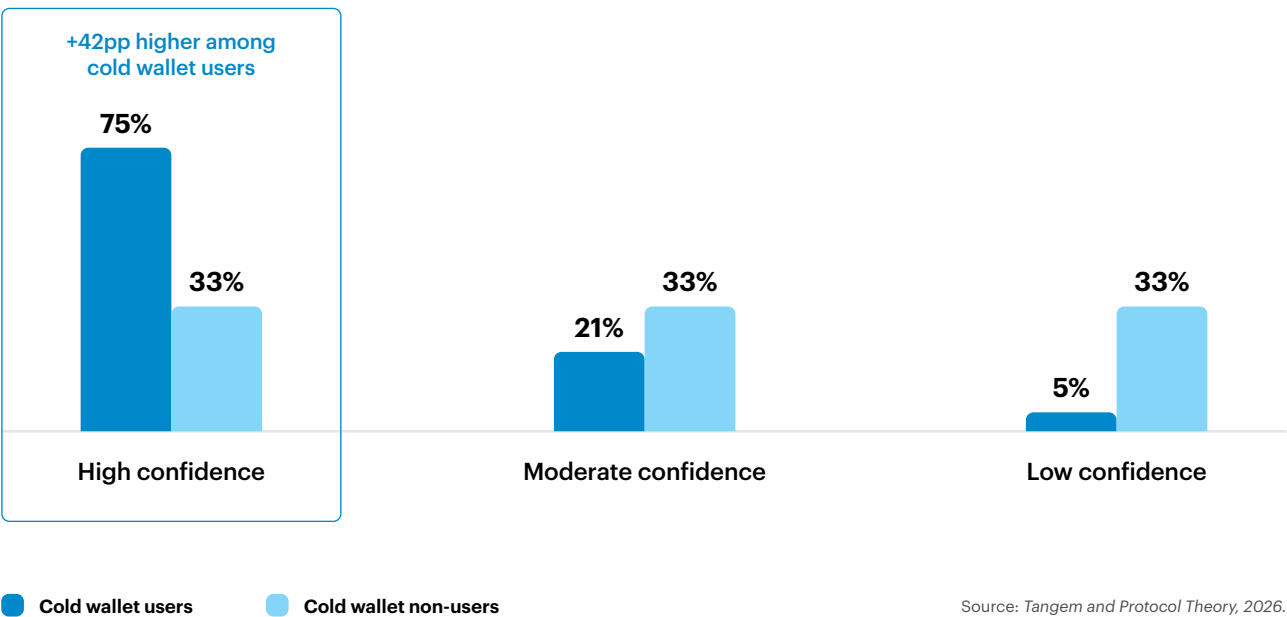
The Confidence Barrier: Trust and Control in Self-Custody

Even as understanding of self-custody improves and perceived relevance increases, a further constraint emerges at the point of adoption: confidence in the ability to use it effectively.

Confidence remains uneven across the market. Among non-users, high confidence is limited, while users with direct experience report substantially stronger confidence in their ability to engage with self-custody solutions. This difference indicates a deeper hesitation around taking direct responsibility for asset control.

Confidence in self-custody remains limited among cold wallet non-users, with only one-third reporting high confidence.

Confidence in self-custody by wallet usage status
U.S. crypto users (n=1,128) | % by confidence level



This hesitation is shaped by how risk is understood.

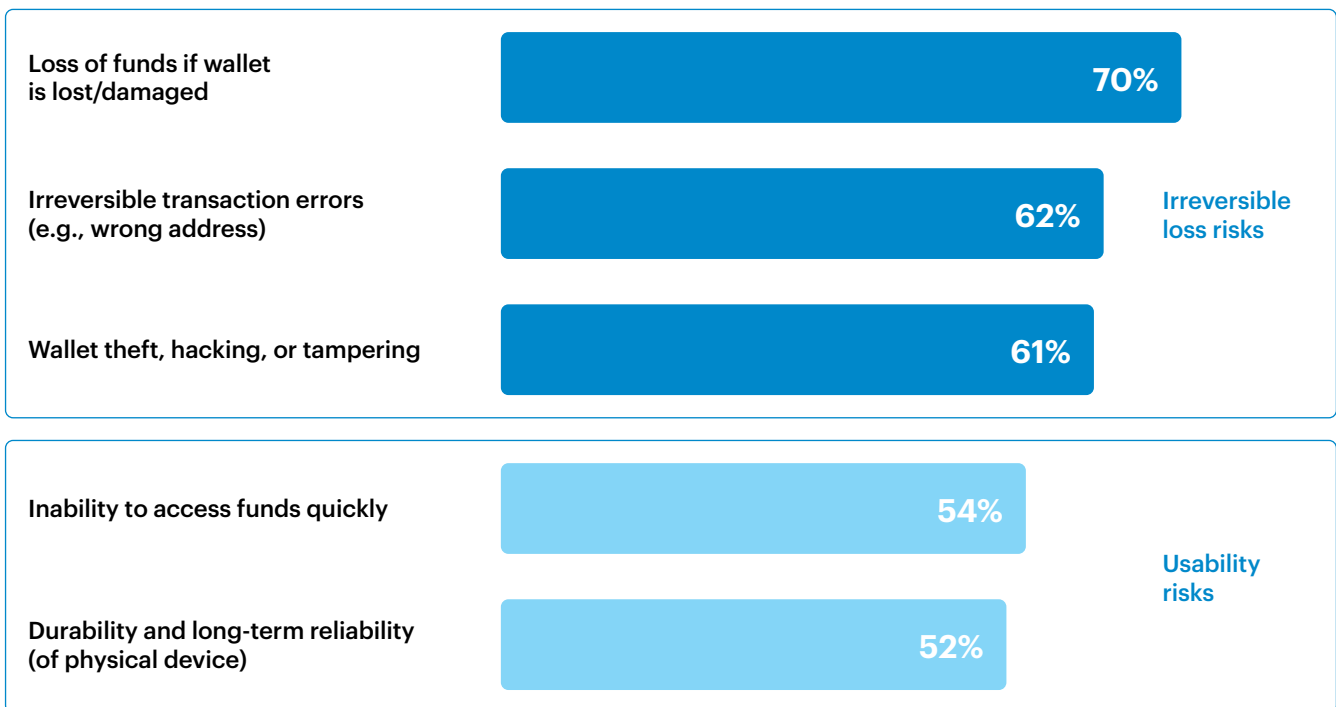
Self-custody introduces a model in which responsibility for security, access, and transaction execution is held at the individual level. Outcomes depend directly on user actions, which changes how risk is evaluated.

The most salient concerns are immediate and irreversible in nature. Loss of funds due to misplaced or damaged wallets, irreversible transaction errors, and the potential for theft or compromise are widely cited. These concerns are prioritized ahead of considerations such as cost or usability.

Fear of irreversible loss and errors dominates wallet-related risk perceptions among crypto users.

Concern about wallet-related risks

U.S. crypto users (n=1,128) | % concerned about each risk



Source: Tangem and Protocol Theory, 2026. Response options shown are not exhaustive.

The structure of these risks is distinct.

They are defined by asymmetry, where a single mistake can lead to permanent loss, and where recovery mechanisms are limited or absent. This shifts the perceived balance of risk, even when users recognize the underlying advantages of direct control.

As a result, the decision to adopt self-custody extends beyond an evaluation of functionality or benefit. It becomes an assessment of personal responsibility and perceived downside.

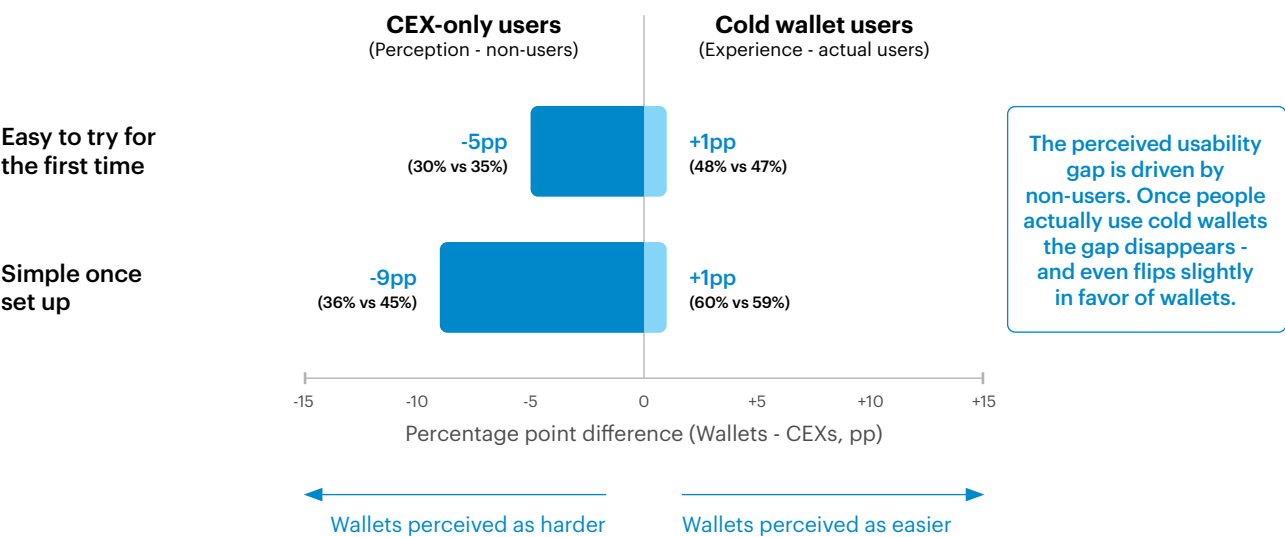
This establishes a confidence threshold.

Users may recognize that self-custody offers greater control, flexibility, and access, yet hesitate to adopt it if they are not confident in their ability to manage these risks effectively. Confidence functions as the gating mechanism between understanding and action

At the same time, experience continues to reshape these perceptions. Users with direct experience are more likely to view self-custody as manageable in practice, and to report comparable—or in some cases more favorable—usability relative to centralized platforms.

Self-custodial wallets are significantly easier to adopt and integrate than non-users expect.

Difference in perceived ease of crypto wallets vs. centralized exchanges, by user type
U.S. crypto users (n=2,044) | % agreeing with statements



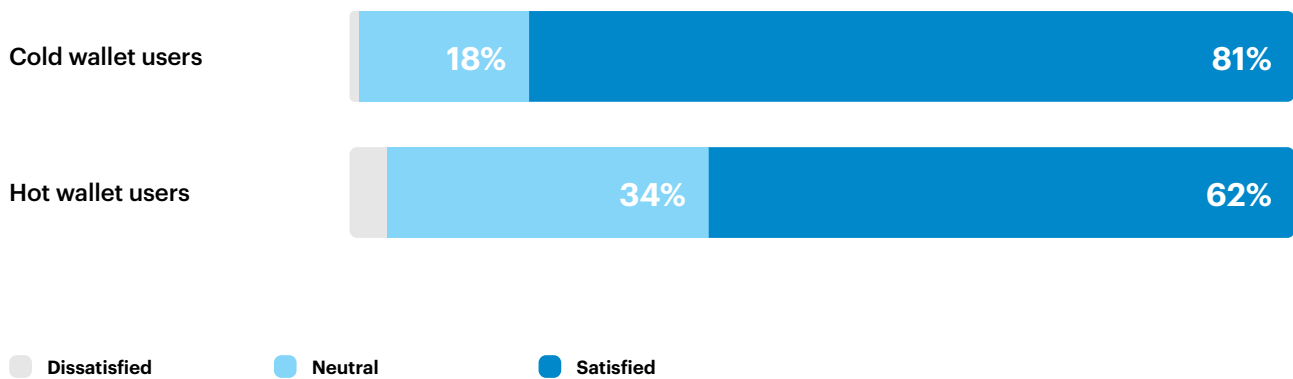
Source: Protocol Theory, 2026. Response options shown are not exhaustive.

A similar pattern emerges in overall satisfaction.

Users of cold wallets report consistently high levels of satisfaction, exceeding that of users relying on other solutions. Satisfaction is widespread, while dissatisfaction is minimal. This indicates that direct experience is materially more positive than non-users anticipate, and that initial perceptions do not fully reflect how these tools perform in practice.

Higher satisfaction among cold wallet users suggests experience and familiarity improve perceived value.

Overall satisfaction with crypto wallets by user type
U.S. crypto users (n=1,128) | % by satisfaction level



Source: Tangem and Protocol Theory, 2026 | Dissatisfied: 1% (cold wallets), 4% (hot wallets).

This establishes the final constraint in the pathway from understanding to action.

Users may recognize the role and value of self-custody, but adoption of these solutions depends on whether they feel capable of using it effectively in practice.

Experience plays a central role in shaping this. As users engage directly, perceived risks become more defined, usability becomes more tangible, and confidence strengthens.

In this context, confidence acts as the final condition for adoption. Understanding establishes relevance, experience reshapes perception, and confidence determines whether users act. Together, these stages define the pathway through which self-custody moves from principle to practice.

Active Self-Custody: The Control Layer of Crypto



Active Self-Custody: The Control Layer of Crypto

Self-custody is widely understood, strongly valued, and central to how users define the purpose of cryptocurrency. Yet adoption remains limited, with most activity still concentrated in centralized environments.

This disconnect reflects how users progress through adoption in practice.

Understanding establishes relevance.
Experience reshapes perception.
Confidence enables action.

Each stage imposes a distinct constraint. Self-custody is initially interpreted through inherited assumptions, most notably the *role-based custody* model that positions cold wallets as specialized tools for passive, long-term storage. This constrains perceived relevance and limits consideration in more active contexts.

As familiarity increases, this framing begins to expand. Direct experience reveals a broader set of capabilities, where self-custody supports not only protection, but also asset management, capital deployment, and interaction with applications. Perceived barriers diminish as usability becomes tangible and benefits are observed in practice.

At this point, adoption depends on confidence. Managing assets directly introduces a different relationship with control, where outcomes are more closely tied to individual actions. The decision to adopt becomes an assessment of responsibility, perceived downside, and the ability to operate securely within this model.

These dynamics explain the gap between belief and behavior. They also explain how it closes.

Active Self-Custody captures the state that emerges as these constraints are resolved. It reflects a mode of participation in which users engage across storing, growing, and spending activities while maintaining direct control over their assets. This is already observable in how self-custody wallets are used today.

Within this structure, self-custody functions as the *control layer* of the crypto ecosystem. It governs how assets are secured, deployed, and moved, consolidating ownership, authorization, and execution within a single interface. Value is no longer held in one environment and used in another. It is managed through a unified system in which control persists across all activity.

This has important system-level implications.

As capabilities continue to integrate and user experience improves, the separation between storage and activity becomes increasingly irrelevant. The role of self-custody expands accordingly, moving from a specialized function to a foundational layer of participation.

Over time, this progression reshapes how the ecosystem is structured.

Centralized platforms continue to provide access, liquidity, and convenience. Applications continue to enable activity. Self-custody sits above both as the layer through which value is controlled, orchestrated, and ultimately owned.

In this system, participation is defined by control.

And control is exercised through self-custody.

Methodology Statement

This report draws on data from over **3,172 U.S.-based crypto users across multiple quantitative studies**, designed, conducted, and analyzed by **Protocol Theory**, to provide an evidence-based view of behavior, perceptions, and adoption dynamics within the self-custody and Web3 wallet category.

The analysis combines a **segmentation-led study conducted for Tangem (n = 1,503)** with a **large-scale survey of 2,044 U.S. crypto users aged 18–64**, enabling consistent comparison across centralized exchanges, hot wallets, and self-custody wallets. All data reported from the Tangem study is based on **U.S. crypto users aged 18+**.

Respondents were recruited via **ISO 20252–certified, human-verified research panels**, with samples structured to reflect a broad cross-section of crypto users. Demographic distributions, including age, gender, and location, reflect natural sample composition within the crypto population.

Surveys were self-completed on desktop and mobile devices and used validated scale-based measures alongside custom-designed questions aligned to research best practice. The research focuses on **wallet usage behaviors, self-custody attitudes, perceived risks and barriers to adoption, and user engagement across storing, growing, and spending activities**. Analysis was conducted using descriptive statistics and subgroup comparisons to identify patterns across user types.

To complement survey findings, the report also draws on **aggregated, anonymized internal user activity data from a large global self-custody wallet provider**, capturing real-world trends in staking and yield-based participation over time.

All research was conducted in accordance with the **ESOMAR International Code on Market and Social Research**, with attention checks and validation rules applied to ensure data quality. While findings are based on self-reported behavior and should be interpreted as associational, the combination of large-scale survey data and behavioral evidence provides a robust and reliable view of the category.

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