

Fundamentals of Owning Digital Assets: Sovereign Ownership & Self-Custody

Pete Bonacci, Nik Fahrer, Brian Fisher, Daniel Johnston / December 2024

Meet the Presenters



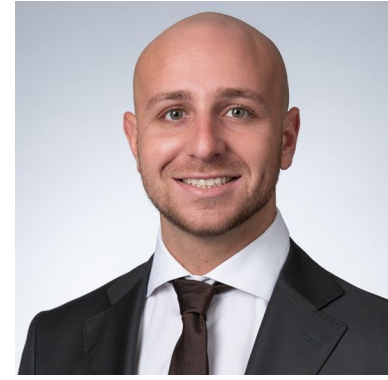
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Agenda

1. Custodial and Self-Custodial ownership models
2. On-chain transactions and demonstration
3. Risks of different ownership models



Housekeeping Items

- The presentation is not investment, financial, legal, or tax advice.
 - Please consult your advisor.
- Please ask questions
 - There is no such thing as a stupid question.
 - We will try to answer as many as we can.



01

Custodial & Self-Custodial Ownership Models

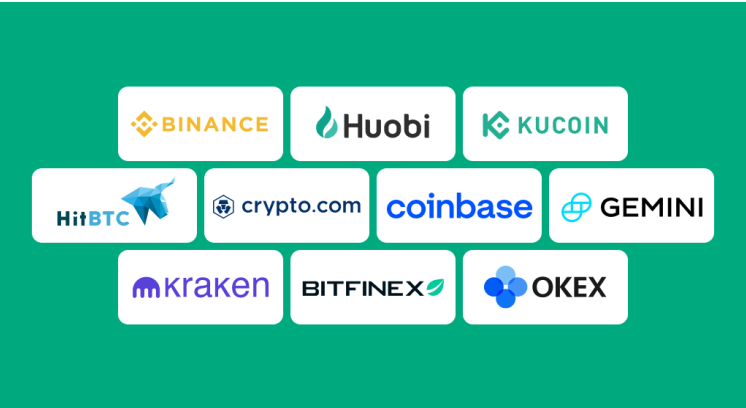


Types of Exposure to Digital Assets

Three Primary Avenues

Direct Acquisition

- Purchasing assets through an exchange or acquiring assets directly through mining or direct receipt



Indirect Acquisition

- Purchasing Bitcoin Spot ETFs (securitization of underlying asset) (11 current Bitcoin Spot ETFs)

LIST OF APPROVED BITCOIN ETFS

APPROVED BITCOIN ETFS	TICKER	EXPENSE RATIO
Bitwise Bitcoin ETFs	BITB	0.20% (0.00%)
Ark 21 Shares Bitcoin ETF	ARKB	0.25% (0.00%)
Fidelity Wise Origin Bitcoin Fund	FBTC	0.25% (0.00%)
iShares Bitcoin Trust	IBIT	0.25% (0.12%)
Vanruck Bitcoin Trust	HODL	0.25%
Franklin Bitcoin ETF	EZBC	0.29%
WisdomTree Bitcoin Fund	BTCW	0.30% (0.00%)
Invesco Galaxy Bitcoin ETF	BTCO	0.39% (0.00%)
Valkyrie Bitcoin Fund	BRRR	0.49% (0.00%)
Hashdex Bitcoin ETF	DEFI	0.94%
Grayscale Bitcoin Trust	GBTC	1.50%

ASIC MARKETPLACE

Indirect Exposure

- Invest in companies within the digital asset industry



HUT 8



First... What is a Cryptocurrency wallet & why do we need them?

Public Key

- A public key in a cryptocurrency wallet functions like a bank account number.
- When a user generates a wallet, a public key is automatically created to identify the account.
- This key is used to encrypt messages intended for a specific recipient and can be freely shared with others to receive blockchain assets. Within a blockchain network, these public keys become crucial for the identification and communication process within a blockchain network.

Private Key

- Seed phrases are like passwords but are much harder to remember, which is why it is crucial to secure them properly.
- Unlike a public key, which can be shared openly, the private key should be kept secure and confidential.
- Used to authorize transactions and access funds within the wallet through a digital signature that validates the ownership of digital assets on the blockchain.
- Private keys utilize a seed phrase, which can be 12 to 24 words long. Users cannot specifically select the words that are used as part of the seed phrase.



Public Key vs. Private Keys



Hot or Cold?

Hot Wallets (Online)

- Purpose: more convenient and conducive for trading along with quick access for transactions
- Software
- Easy access to assets anywhere and anytime via a mobile device or through a web browser.
- Majority of hot wallets are free to use
- More prone to cybersecurity vulnerabilities such as hacking or DDOS "distributed denial-of-service" attack

Cold Wallets (Offline)

- Purpose: best suited for long term storage similar to a bank vault
- Hardware
- Only accessible in a specific manner: plugging wallet into a computer (Ledger)
- In 2024 the price of a cold wallet starts at \$50 due to the initial hardware cost
- Less susceptible to cybersecurity breaches but also require additional safeguards to prevent damage or theft



Custodial vs. Self-Custodial

A comparative analysis

Custodial

- Custodian (third party) control over funds
- Private key control lies with third party
- Accounts can be restored in the case of lost seed phrase
- Slower withdrawals due to regulatory checks (KYC/AML)
- Hot wallet (connected to internet)

Self-Custodial

- User has complete control of funds
- Users have control over private keys
- Accounts cannot be recovered in the case of lost seed phrase
- Withdrawals are faster and settle real time
- Ability to have offline accessibility (cold wallet)



Custodial Ownership Model

Custodial



Benefits & Limitations of Using a Custodial Wallet

Benefits of Custodial Wallets

- 

Fast & Free Transactions
- 

Excellent UI/UX
- 

Maximum Backup Chances
- 

Private Keys Regain Access

Limitations of Custodial Wallets

- 

Full Third-Party Control
- 

KYC Needed
- 

Only Online Facility
- 

Chances of Data Breaching

Self-Custodial Ownership Model

Self-Custody vs Custodial

	 Self-Custody	 Custodial
Complete Control of Funds	✓	✗
Recovery of Funds if Seed Phrase Lost	✗	✓
KYC & AML Verifications	✗	✓
Offline Accessibility	✓	✗
Funds Affected by Exchange Hacks	✗	✓
Technical Know How	★★★	★



02

On-chain transactions & demonstration



On-Chain Transactions

What is it?

Definition:

- On-chain transactions in cryptocurrency refer to transactions that are recorded and validated directly on the blockchain's main network. These transactions are processed by the blockchain's consensus mechanism, such as Proof of Work (PoW) or Proof of Stake (PoS), and once confirmed, they become a permanent part of the blockchain ledger



Key Points:

- **Security and Transparency:** On-chain transactions are highly secure and transparent because they are validated by the entire network and cannot be altered once recorded.
- **Processing Time and Fees:** They can be slower and more costly compared to off-chain transactions due to the resource-intensive validation process and potential network congestion.
- **Immutability:** Once an on-chain transaction is confirmed, it is immutable, meaning it cannot be changed or reversed

Live Demonstration

Agenda:

1. Swap fiat for Ethereum (ETH) on Coinbase
2. Send Ethereum to MetaMask Wallet from Coinbase
3. Navigate to UniSwap (DEX) to swap Ethereum for USDC
4. Send USDC to Coinbase from MetaMask Wallet
5. Review transactions on Etherscan.io (Public Blockchain Explorer)

Conducting a Transaction using Coinbase (Custodian)

Step 1: On-Ramping Fiat Currency

The screenshot shows the Coinbase 'My assets' interface. The main balance is \$0.00, with a change of -\$8.09 in the last 24 hours. A table lists the assets, showing 0.00000001 ETH of Ethereum with a current price of \$3,085.66. A 'Staking' section offers 13.89% APY on available crypto. On the right, a transaction flow is shown: '100 USD' is entered, which is converted to 0.03068558 ETH. The payment method is a VISA card ending in **2214, with a \$750.00 limit. A 'Review order' button is visible, along with options to 'Send crypto', 'Receive crypto', 'Deposit cash', and 'Withdraw cash'.

Name	Balance ↓	Today's return	Current price
Ethereum 0% staked	\$0.00 0.00000001 ETH	↓ \$0.43 1.23%	\$3,085.66 ↓ 1.39%

Conducting a Transaction using Coinbase (Custodian)

Step 1: On-Ramping Fiat Currency

The screenshot shows the Coinbase 'My assets' page. The main balance is \$0.00, with a 1D change of -\$8.09. A table lists the assets, showing Ethereum with a balance of \$0.00 and a current price of \$3,085.66. Below the table is a 'Staking' section with an offer to 'Earn up to 13.89% APY' on \$35 of crypto. A right-hand modal is open for buying \$100 of Ethereum, showing the current price of \$3,123.28 per ETH, the amount to receive (0.03067606 ETH), and the payment method (VISA ****2214). The modal also includes a 'Buy now' button and options to 'Send crypto' or 'Receive crypto'.

My assets

\$0.00
↘ \$8.09 1D

See balance summary

Crypto Cash

\$0.00

Name	Balance ↓	Today's return	Current price
Ethereum 0% staked	\$0.00 0.00000001 ETH	↘ \$0.43 1.23%	\$3,085.66 ↘ 1.39%

Staking

Earn up to 13.89% APY
You have \$35 in crypto available to stake

Start earning

Buy \$100 of Ethereum
ETH price \$3,123.28

Receive 0.03067606 ETH

Pay with VISA ****2214

Stake for up to 2.24% APY
~13 day unstaking wait time

Save \$4.19 on this trade
Free for 7 days

Crypto markets are unique, [learn more](#).

Total incl. spread + \$4.19 fee **\$100.00**

Buy now

Send crypto

Receive crypto

Conducting a Transaction using Coinbase (Custodian)

Step 1: On-Ramping Fiat Currency

The screenshot shows the Coinbase 'My assets' interface. The main balance is \$94.81, with a 1-day change of -\$8.09. The 'Crypto' tab is active, showing a table with one asset: Ethereum (ETH) with a balance of 0.03069026 ETH and a current price of \$3,091.49. A 'Staking' section offers up to 13.89% APY. On the right, a fiat on-ramp for USD is displayed, showing a limit of \$750.00 and a 'Review order' button.

My assets

\$94.81
↓ \$8.09 1D

See balance summary

Buy Sell Convert One-time order

Eligible to earn 2.24% APY

0 USD Max

↕ 0 ETH

VISA Pay with \$750.00
***2214 Limit

Buy Ethereum

Review order →

Send crypto
Receive crypto
Deposit cash
Withdraw cash

Name	Balance ↓	Today's return	Current price
Ethereum 0% staked	\$94.82 0.03069026 ETH	↓ \$0.43 1.23%	\$3,091.49 ↓ 1.39%

Staking

Earn up to 13.89% APY
Buy and stake eligible assets to earn rewards

[Explore assets](#)

Advanced

Conducting a Transaction using Coinbase (Custodian)

Step 1: On-Ramping Fiat Currency

The screenshot shows the Coinbase 'Transactions' page. On the left is a navigation sidebar with options like Home, My assets, Transactions (selected), Explore, Derivatives, Learning rewards, Coinbase One, and Invite friends. The main area is titled 'Transactions' and includes a 'Manage' section with 'Recurring buys' and 'Limit orders' buttons. Below is an 'Activity' section with a table of transactions. On the right, there's a fiat on-ramp interface for USD, showing options to 'Buy', 'Sell', or 'Convert', and a 'Review order' button.

Details	Amount	Date
Bought ETH	+\$100.00 +0.03069025 ETH	Nov 20, 2024
Sent ETH	-\$35.06 -0.01136104 ETH	Nov 20, 2024
Bought ETH	+\$37.44 +0.01136104 ETH	Nov 20, 2024
Sold ETH	-\$39.43 -0.01290651 ETH	Nov 20, 2024
Received ETH	+\$39.80 +0.01290652 ETH	Nov 20, 2024
Sent ETH	-\$41.45 -0.01348197 ETH	Nov 20, 2024

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. A modal window is open for sending funds. The modal displays a balance of 94.7 USD, which is equivalent to 0.03068712 ETH. The 'Send' button is highlighted, and the 'Preview Send' button is visible. The background shows the 'My assets' page with a total balance of \$94.70 and a table listing assets.

Name	Balance
Ethereum 0% staked	\$94.70 0.03069026 ETH

Modal content:

94.7 USD (Max)

0.03068712 ETH

Send \$94.70 Available

To: Select network and recipient

Buttons: Add note, Preview Send

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. The main balance is \$94.61, with a decrease of \$13.36 in the last 24 hours. The asset list shows Ethereum with a balance of \$94.61 and 0.03069026 ETH. A 'Staking' section offers 13.89% APY. A modal titled 'Select network' is open, asking 'What should I pick?' and listing options: Phone or email (Free), Ethereum (Default, \$0.45), Base (Free), Arbitrum (\$0.00), and Avalanche C-Chain (\$0.04). The background shows a 'Buy' order for 0 USD with a 'Review order' button.

Send via	Est. fee
Phone or email To anyone globally	Free
Ethereum Default	\$0.45
Base	Free
Arbitrum	\$0.00
Avalanche C-Chain	\$0.04

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot displays the Coinbase mobile application interface. The main screen shows the 'My assets' section with a balance of \$94.61. A modal window titled 'Send Ethereum on Ethereum to' is open, showing a search bar for 'Ethereum address or ENS' and a recent transaction to '0x5592...24f9E9'. A second modal window shows a confirmation screen for sending \$34.39 USD, with options for 'Buy & Sell', 'Swap', 'Bridge', 'Send', and 'Receive'. The background shows the 'My assets' table and a 'Staking' section.

Name	Balance
Ethereum 0% staked	\$94.61 0.03069026 ETH

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. The main balance is \$94.61, with a change of -\$13.36 in the last 24 hours. A table lists assets, showing Ethereum with a balance of \$94.29 (0.03069026 ETH). A 'Staking' section offers 13.89% APY. Two modals are overlaid: 'Send Ethereum on Ethereum to' with a recipient address and a transaction history entry, and 'Receive' with a QR code and account address.

Name	Balance
Ethereum 0% staked	\$94.29 0.03069026 ETH

Send Ethereum on Ethereum to

- 0x559232DabaC5E25f22EB8F22Da4b6d1
- 0x5592...24f9E9
Sent to 50 minutes ago

Receive

Account 1
0x559232dabac5e25f22eb8f22da4b6d110f24f9e9

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. A modal window is open for sending Ethereum. The modal displays the amount '94.57 USD' (equivalent to 0.03068696 ETH) and the destination address '0x5592...24f9E9'. The network is set to 'Ethereum'. The background shows the user's total asset value of \$94.61, with a table listing assets like Ethereum (0.03069026 ETH) and a 'Staking' section offering 13.89% APY.

Name	Balance
Ethereum 0% staked	\$94.19 0.03069026 ETH

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. A modal window is open for sending ETH. The modal displays the following information:

- Send \$93.59 in ETH** (0.03048025 ETH)
- Send to:** 0x559232DabaC5E25f22EB8F22Da4b6d110F24f9E9
- Network:** Ethereum
- Send time:** ~40 seconds
- Total:** \$94.23 (incl. ~\$0.64 network fee)
- Send now** button

The background interface shows the 'My assets' page with a total balance of \$94.61. The 'Ethereum' asset is listed with a balance of \$94.22 (0.03069026 ETH). A 'Staking' section offers an APY of up to 13.89% on \$94 in crypto. The right sidebar shows a 'Buy' order for 0 USD with a 'Review order' button.

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot shows the Coinbase 'My assets' interface. A modal titled 'Authenticate your Ethereum send' is centered on the screen, prompting the user to enter a 6-digit code. The modal text reads: 'Enter the 6-digit code we texted to +* *****96. This helps us keep your account secure by verifying that it's really you.' Below the text are six input boxes, with the first one containing a vertical bar. A 'Resend code in 23' button and a 'Try another way' link are also visible in the modal.

The background interface shows the 'My assets' section with a total balance of \$94.61, a decrease of \$13.36 in the last 24 hours. A table lists assets, with Ethereum (ETH) highlighted, showing a balance of \$94.61 and 0.03069026 ETH. Below the table is a 'Staking' section offering 13.89% APY on crypto assets, with a 'Start earning' button.

On the right side, there is a 'Buy' button for USD, a 'Review order' button, and a list of actions: 'Send crypto', 'Receive crypto', 'Deposit cash', and 'Withdraw cash'.

Conducting a Transaction using Coinbase (Custodian)

Step 2: Send Ethereum (ETH) to MetaMask Wallet (Self-Custody)

The screenshot displays the Coinbase 'My assets' page with a transaction confirmation modal and a MetaMask wallet overlay. The modal indicates that 0.03048025 ETH has been sent, resulting in a balance of \$93.59. The MetaMask overlay shows a portfolio value of \$127.81 USD and a transaction for Ethereum staking.

My assets

\$94.61
↓ \$13.36 1D

Crypto Cash

\$94.61

Name	Balance ↓
Ethereum 0% staked	\$94.17 0.03069026 ETH

Staking

Earn up to 13.89% APY
You have **\$94** in crypto available to stake

Start earning

Account 1
0x55923...4f9E9

\$127.81 USD
-\$0.95 (-0.74%) [Portfolio](#)

Buy & Sell Swap Bridge Send Receive

Tokens NFTs Activity

Sort by ▾ + Import

Ethereum • Stake
-0.74% \$127.81 U...
0.0417 ETH

Refresh list

MetaMask support

Withdraw cash

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The screenshot shows the Uniswap web interface in a browser. The address bar displays 'app.uniswap.org/swap'. The main interface includes a search bar for tokens, navigation links for 'Trade', 'Explore', and 'Pool', and a 'Connect' button. The swap section is active, showing 'Swap' as the selected mode. The 'Sell' field is set to '0' ETH, and the 'Buy' field is set to '0' USDT. A 'Connect wallet' button is visible below the swap fields. A notification banner at the bottom of the swap section reads 'Swapping across networks New Move ETH, USDC, and more across 8+ networks.' On the right side, a 'Connect a wallet' modal is open, listing options: 'Get Uniswap Wallet' (Available on iOS, Android, and Chrome), 'Uniswap Mobile' (Scan QR code to connect), and 'Other wallets'. Under 'Other wallets', 'MetaMask' (Recent), 'WalletConnect', and 'Coinbase Wallet' are listed. A disclaimer at the bottom of the modal states: 'By connecting a wallet, you agree to Uniswap Labs' Terms of Service and consent to its Privacy Policy.'

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The image shows a browser window with the Uniswap interface. The browser tabs include 'My assets - Coinbase', 'Ethereum (ETH) Blockchain Exp', and 'Buy, sell & trade Ethereum and'. The address bar shows 'app.uniswap.org/swap'. The Uniswap logo and navigation links 'Trade', 'Explore', and 'Pool' are visible. The main interface features a search bar, tabs for 'Swap', 'Limit', 'Send', and 'Buy', and a swap form with 'Sell' (0 ETH) and 'Buy' (0 USDT) sections. A 'Connect wallet' button is prominent. A MetaMask overlay is open, displaying the 'Connect with MetaMask' dialog with options to 'See your accounts and suggest transactions' and 'Use your enabled networks'. Below the dialog, the 'Coinbase Wallet' option is visible. A notification at the bottom of the Uniswap interface reads 'Swapping across networks New Move ETH, USDC, and more across 8+ networks.'

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The screenshot shows the Uniswap swap interface in a browser window. The browser tabs include 'My assets · Coinbase', 'Ethereum (ETH) Blockchain Expl...', and 'Buy, sell & trade Ethereum and...'. The address bar shows 'app.uniswap.org/swap'. The Uniswap logo and navigation links 'Trade', 'Explore', and 'Pool' are visible. The swap interface is set to 'Swap' mode. The 'Sell' side shows 0.02 ETH (worth \$60.95) being sold. The 'Buy' side shows 60.7029 USDT (worth \$60.76) being bought. A 'Review' button is prominent. Below the swap interface, there is a notification: 'Swapping across networks New. Move ETH, USDC, and more across 8+ networks.' On the right, a MetaMask wallet overlay is open for 'Account 1' (address: 0x55923...4f9E9). The wallet balance is \$126.96 USD, with a change of -\$1.69 (-1.32%). The 'Activity' tab is selected, showing a transaction on Nov 20, 2024: 'Send Confirmed' of -0.01290652 ETH (-\$39.32 USD). A 'MetaMask support' link is also visible.

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The screenshot displays the Uniswap application interface. At the top, there are navigation tabs for 'Trade', 'Explore', and 'Pool'. A search bar for tokens is visible. The main swap interface shows a transaction where 0.02 ETH (worth \$61.06) is being swapped for 60.6726 USDT (worth \$60.73). The transaction includes a fee of 0.25% (\$0.15) and a network cost of \$9.25. A prominent pink 'Swap' button is at the bottom of the transaction window. A MetaMask wallet overlay is open on the right, showing the account balance as \$126.96 USD, which is down 1.72% from the previous value. The wallet also shows a list of assets, including 'Ethereum • Stake' with a balance of 0.0417 ETH and a value of \$126.96. Navigation options like 'Buy & Sell', 'Swap', 'Bridge', 'Send', and 'Receive' are visible in the wallet overlay.

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The image shows a browser window with the Uniswap interface and a MetaMask transaction request overlay. The Uniswap interface displays a swap of 0.02 ETH for 60.6726 USDT. The MetaMask overlay shows the transaction details, including the estimated changes, request from, interacting with, network fee, and speed.

Uniswap Swap Details:

- You're swapping: 0.02 ETH (\$60.90)
- You receive: 60.6726 USDT (\$60.73)
- Fee (0.25%): \$0.15
- Network cost: \$8.90
- Confirm in wallet

MetaMask Transaction Request:

- Account 1: Ethereum Mainnet
- Transaction request
- Estimated changes:
 - You send: -0.02 ETH (\$60.82)
 - You receive: +60.62 USDT (\$60.59)
- Request from: app.uniswap.org
- Interacting with: 0x3fC91...b7FAD
- Network fee: 0.0032 ETH \$9.68
- Speed: Site suggested -15 sec
- Buttons: Cancel, Confirm

Interacting with dApps using your Self-Custody Wallet

Step 4: Swap Ethereum (ETH) for USDT via Uniswap

The screenshot shows the Uniswap swap interface in a browser window. The URL is `app.uniswap.org/swap`. The interface includes a search bar for tokens and a swap confirmation modal. The modal displays the following details:

- You're swapping
- 0.02 ETH (\$60.86)
- 60.6307 USDT (\$60.69)
- Fee (0.25%) \$0.15
- Network cost \$10.04
- Confirm in wallet button

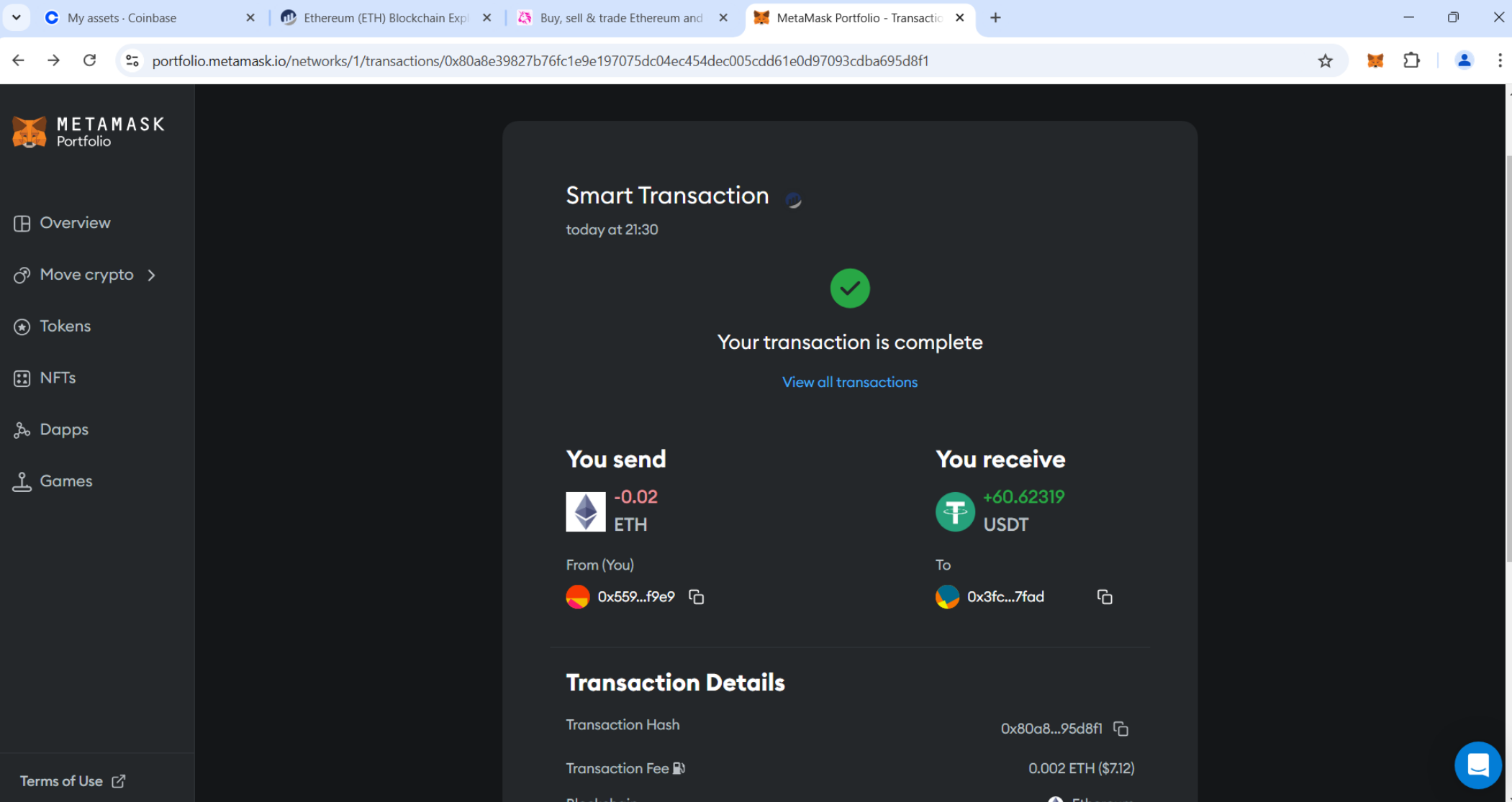
A MetaMask extension window is open on the right, displaying a confirmation message: "Your transaction was submitted". It includes a "View transaction" link and a "Close extension" button. The estimated changes are:

- You send: -0.02 ETH (\$60.82)
- You receive: +60.62 USDT (\$60.59)

Below the estimated changes, it states: "You may close this window anytime." and a "Close extension" button.

Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer



The screenshot shows the MetaMask Portfolio interface with a dark theme. The browser address bar displays the URL: `portfolio.metamask.io/networks/1/transactions/0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1`. The main content area features a 'Smart Transaction' card with a green checkmark and the text 'Your transaction is complete'. Below this, the transaction details are summarized:

Category	Amount	Asset
You send	-0.02	ETH
You receive	+60.62319	USDT

Transaction Details:

Transaction Hash	0x80a8...95d8f1
Transaction Fee	0.002 ETH (\$7.12)

Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows the MetaMask Portfolio interface on a web browser. The browser tabs include 'My assets - Coinbase', 'Ethereum (ETH) Blockchain Expl', 'Buy, sell & trade Ethereum and', and 'MetaMask Portfolio - Transactio'. The address bar shows the URL 'portfolio.metamask.io/networks/1/transactions/0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1'. The interface features a dark theme with a sidebar on the left containing navigation options: Overview, Move crypto, Tokens, NFTs, Dapps, and Games. The main content area displays transaction details for an ETH transaction. At the top, it shows a balance change of -0.02 ETH and +60.62319 USDT. The transaction is from 'From (You)' with address '0x559...f9e9' to 'To' with address '0x3fc...7fad'. Below this, a 'Transaction Details' section lists the following information:

Transaction Details	
Transaction Hash	0x80a8...95d8f1
Transaction Fee	0.002 ETH (\$7.12)
Blockchain	Ethereum
Status	Validated
Timestamp	Today At 21:30
Block Number	21233135
Block Hash	0xec3...663c
Value	0.02
Method Id	0x3593564c
Gas Price	14288621265

At the bottom left of the sidebar, there is a 'Terms of Use' link. At the bottom right of the main content area, there is a blue circular icon with a white speech bubble.

Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows the Etherscan.io interface. At the top, the browser tabs include 'My assets - Coinbase', 'Ethereum (ETH) Blockchain Expl...', 'Buy, sell & trade Ethereum and...', and 'MetaMask Portfolio - Transactio...'. The address bar shows 'etherscan.io'. The page header includes the Etherscan logo and navigation links: Home, Blockchain, Tokens, NFTs, Resources, Developers, More, and Sign In. The main content area features a search bar with the address '0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f' and a search icon. Below the search bar is a sponsored advertisement for Metawin. The main dashboard displays several key metrics: ETH Price at \$3,066.45 (-1.47%), Gas Price at 9.201 Gwei, Market Cap at \$369,280,863,361.00, Transactions at 2,587.42 M (14.2 TPS), MED Gas Price at 9.201 Gwei (\$0.59), Last Finalized Block at 21232117, and Last Safe Block at 21232149. A 'Transaction History in 14 Days' chart shows a fluctuating line graph. Below these metrics are sections for 'Latest Blocks' and 'Latest Transactions'. The 'Latest Blocks' section shows block 21232192 (13 secs ago) by Miner Titan Builder with 147 txns in 12 secs, and block 21232191 (25 secs ago). The 'Latest Transactions' section shows a transaction from 0x4838B106...B0BAD5f97 to 0xa27CEf8a...Ae96F491F for 0.0422 Eth, and another transaction for 0.78189 Eth. A cookie consent banner is visible at the bottom of the page.



Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows a web browser with several tabs: 'My assets · Coinbase', 'Ethereum Transaction Hash (Tx)', 'Buy, sell & trade Ethereum and', and 'MetaMask Portfolio - Transactio'. The address bar shows the URL 'etherscan.io/tx/0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1'. The page header includes 'ETH Price: \$3,041.02 (-1.61%)' and 'Gas: 13.955 Gwei'. A search bar is present with the text 'Search by Address / Txn Hash / Block / Token / Domain Name'. Below the header, there is a sponsored banner for 'Metawin: Win 3 ETH worth \$7k+! Grab Your FREE ENTRY Today. Enter Here.' The main content area has tabs for 'Overview', 'Internal Txns', 'Logs (6)', and 'State'. The 'Overview' tab is active, showing transaction details: Transaction Hash: 0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1; Status: Success; Block: 21233135 (27 Block Confirmations); Timestamp: 5 mins ago (Nov-21-2024 02:30:23 AM UTC); Transaction Action: Swap 0.02 ETH (\$60.82) for 60.623192 (\$60.68) USDT on Uniswap; Sponsored: A placeholder for a Coinzilla advertisement; From: 0x559232DabaC5E25f22EB8F22Da4b6d110F24f9E9; To: 0x3fc91A3afd70395Cd496C647d5a6CC9D4B2b7FAD (Uniswap: Universal Router); ERC-20 Tokens Transferred: 4. The 'All Transfers' tab is selected, showing two transfers: 'From Uniswap V3: USDT 3 To Uniswap: Universal Router For 60.775129 (\$60.84) Tether USD (USDT)' and 'From Uniswap: Universal Router To Uniswap V3: USDT 3 For 0.02 (\$60.81) Wrapped Ethe... (WETH)'.

Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows a browser window with several tabs: 'My assets - Coinbase', 'Ethereum Transaction Hash (Tx)', 'Buy, sell & trade Ethereum and', and 'MetaMask Portfolio - Transactio'. The address bar shows the URL 'etherscan.io/tx/0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1'. The page content includes:

- ETH Price: \$3,041.02 (-1.61%) Gas: 13.955 Gwei
- Transaction Hash: 0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1
- Status: Success
- Block: 21233135 (27 Block Confirmations)
- Timestamp: 5 mins ago (Nov-21-2024 02:30:23 AM UTC)
- Transaction Action: Swap 0.02 ETH (\$60.82) for 60.623192 (\$60.68) USDT on Uniswap
- Sponsored: Coinzilla advertisement
- From: 0x559232DabaC5E25f22EB8F22Da4b6d110F24f9E9
- To: 0x3fc91A3afd70395Cd496C647d5a6CC9D4B2b7FAD (Uniswap: Universal Router)
- ERC-20 Tokens Transferred: 4
- Value: 0.02 ETH (\$60.82)

The 'Receive' modal overlay displays a QR code, the account name 'Account 1', the address '0x559232dabac5e25f22eb8f22da4b6d110f24f9e9', and a 'Copy address' button. A 'MetaMask support' link is visible at the bottom of the modal.

Interacting with dApps using your Self-Custody Wallet

Step 5: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows a browser window with several tabs: 'My assets - Coinbase', 'Ethereum Transaction Hash (Tx)', 'Buy, sell & trade Ethereum and', and 'MetaMask Portfolio - Transactio'. The active page is Etherscan, displaying a transaction hash: `0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1`. The transaction details include:

- Transaction Hash:** 0x80a8e39827b76fc1e9e197075dc04ec454dec005cdd61e0d97093cdba695d8f1
- Status:** Success
- Block:** 21233135 (27 Block Confirmations)
- Timestamp:** 5 mins ago (Nov-21-2024 02:30:23 AM UTC)
- Transaction Action:** Swap 0.02 ETH (\$60.82) for 60.623192 (\$60.68) USDT on Uniswap
- Sponsored:** Advertisement for Coinzilla with the text 'Place your AD here'.
- From:** 0x559232DabaC5E25f22EB8F22Da4b6d110F24f9E9
- To:** 0x3fc91A3afd70395Cd496C647d5a6CC9D4B2b7FAD (Uniswap: Universal Router)
- ERC-20 Tokens Transferred:** 4 tokens. The list includes transfers from Uniswap V3 and Universal Router to various addresses.
- Value:** 0.02 ETH (\$60.82)

A 'Receive' modal is overlaid on the right side of the page, showing a QR code for receiving funds to 'Account 1' with the address `0x559232dabac5e25f22eb8f22da4b6d110f24f9e9`. A 'Copy address' button is visible below the address. The modal also includes a 'MetaMask support' link at the bottom.

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' page. The main balance is \$0.00, with a change of -\$13.36 in the last 24 hours. Below this, there is a table of assets:

Name	Balance ↓	Today's return	Current price
Ethereum 0% staked	\$0.00 0.00000001 ETH	↓ \$1.12 1.18%	\$3,066.76 ↓ 0.34%

Below the table is a 'Staking' section with a 'Start earning' button. On the right side, there is a 'Buy' button and a 'Review order' button. The 'Review order' button is highlighted in blue.

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot displays the Coinbase 'My assets' page and a MetaMask account overview. The Coinbase interface shows a total balance of \$0.00 with a 1D change of -\$13.36. A table lists assets: Ethereum (\$0.00, 0.00000001 ETH), USDC (\$0.00, 0 USDC), and Tether (\$0.00, 0 USDT). A 'Staking' section offers up to 13.89% APY on \$94 in crypto. A 'Select asset to receive' dialog is open, listing 'Recent' assets (ETH) and 'ALL' assets (Ethereum, USDC, Tether, Polynon). The MetaMask overlay shows 'Account 1' with a balance of \$58.82 USD (-1.91%) and 0.0193 ETH. It includes navigation buttons for Buy & Sell, Swap, Bridge, Send, and Receive, and a notification for a new token found.

Name	Balance
Ethereum 0% staked	\$0.00 0.00000001 ETH
USDC USDC • 4.70% APY	\$0.00 0 USDC
Tether USDT	\$0.00 0 USDT

Asset	Balance
Ethereum ETH	\$0.00 0.0193 ETH

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' interface. The main page displays a total balance of \$0.00 and a list of assets including Ethereum (0.00000001 ETH), USDC (0 USDC), and Tether (0 USDT). Two modal windows are overlaid on the page:

- Select asset to receive:** A search modal with a search bar and a list of assets. The 'Recent' section shows ETH. The 'All' section lists Ethereum, USDC (4.70% APY), Tether, and Polynon.
- Import tokens:** A modal with a search bar containing 'USDT'. The list shows Tether USD (selected), Aave USD, Flux USD, and Aave Interest bearing USD. A 'Next' button is at the bottom.

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' page. A modal window titled 'Select asset to receive' is open, displaying a search bar and a list of assets. The 'Recent' section shows 'ETH'. The 'All' section lists 'Ethereum ETH' (0.00000001 ETH), 'USDC USDC • 4.70% APY' (0 USDC), 'Tether USDT' (0 USDT), and 'PolYGON' (0 MATIC). A second modal window is open on the right, showing a portfolio summary for 'Account 1' with a balance of '\$119.49 USD' and a change of '-\$1.22 (-1.01%)'. Below the summary are buttons for 'Buy & Sell', 'Swap', 'Bridge', 'Send', and 'Receive'. The 'Tokens' tab is selected, showing a list of assets: 'Tether USD' (\$60.67 USD, -0.13%), 'Ethereum • Stake' (\$58.82 USD, -1.91%), and 'Import' (+ Import). A green notification box at the bottom of the modal says 'Token imported: You've successfully imported USDT.' The background shows the main Coinbase interface with a total balance of '\$0.00' and a staking section for Ethereum.

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot displays two overlapping browser windows. The background window is the Coinbase 'My assets' page, showing a balance of \$0.00 and a table of assets. The foreground window is the MetaMask mobile interface, showing a 'Receive USDT' screen with a QR code and a wallet address.

Coinbase 'My assets' page:

- Balance: \$0.00 (change: -\$13.36 1D)
- Assets table:

Name	Balance
Ethereum 0% staked	\$0.00 0.00000001 ETH
- Staking section: Earn up to 13.89% APY. You have \$94 in crypto available to stake.

MetaMask 'Receive USDT' screen:

- Title: Receive USDT on the Ethereum network
- QR code for scanning
- Your address: 0xD310...c94EDa
- Warning: This address can only receive USDT on the Ethereum network. Don't send USDT on any other network or it may be lost.
- Processing time: Allow 2 min for processing

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' page. The main balance is \$0.00, with a change of -\$13.36 in the last 24 hours. A table lists assets, with Ethereum at \$0.00 (0.00000001 ETH). A 'Staking' section offers 13.89% APY on \$94 in crypto. A 'Receive USDT' modal is open, displaying a QR code and the address 0xD310...c94EDa. A transaction history for Tether USD (USDT) is also visible, showing a \$1.00 transaction on Nov 20, 9:48 PM.

Name	Balance
Ethereum	\$0.00 0.00000001 ETH

Receive USDT
on the Ethereum network

Your address: 0xD310...c94EDa

This address can only receive USDT on the Ethereum network. Don't send USDT on any other network or it may be lost.

Allow 2 min for processing

Tether USD (USDT)
\$1.00
\$0.00252 (+0.25%) Nov 20, 9:48 PM

Your balance

Tether USD	\$60.87 USD
-0.20%	60.62319 USDT

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' page with a 'Send' modal open. The 'Send' modal is for sending USDT from 'Account 1' (0x55923...4f9E9) to the recipient address '0xD3104...94EDa'. The amount is 60.623192 USDT, valued at \$60.88. The modal includes a QR code for receiving USDT on the Ethereum network and a warning that the address can only receive USDT on that network. The background shows the 'My assets' page with a balance of \$0.00 and a staking section for Ethereum.

My assets

Receive USDT
on the Ethereum network

Send

From: Account 1 (0x55923...4f9E9)

To: 0xD3104...94EDa

60.623192 USDT (\$60.88)

Balance: 60.623192

Cancel Continue

Withdraw cash

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot displays two overlapping mobile application screens. The background screen is the Coinbase 'My assets' page, showing a balance of \$0.00 and a table of assets including Ethereum. The foreground screen is the MetaMask 'Review' screen for sending USDT. The MetaMask screen shows a QR code for receiving USDT, the recipient's address (0xD310...c94EDa), and transaction details: 60.623192 USDT (\$60.84) on the Ethereum Mainnet network, with a network fee of 0.001 ETH (\$3.09) and a speed of Market (-15 sec). The transaction is ready for confirmation.

Coinbase My assets

Home | My assets | Transactions | Explore | Derivatives | Learning rewards | Coinbase One | Invite friends | Card | More

My assets

\$0.00
↘ \$13.36 1D

Crypto Cash

\$0.00

Name	Balance ↓
Ethereum 0% staked	\$0.00 0.00000001 ETH

Staking

Earn up to 13.89% APY
You have \$94 in crypto available to stake

Start earning

MetaMask Review

Receive USDT
on the Ethereum network

QR code

Your address
0xD310...c94EDa

This address can only receive USDT on the Ethereum network. Don't send USDT on any other network or it may be lost

Allow 2 min for processing

60.623192 USDT
\$60.84

0x55923...4f9E9 > 0xD3104...94EDa

Network: Ethereum Mainnet
Interacting with: USDT

Network fee: 0.001 ETH \$3.09
Speed: Market -15 sec

Cancel | Confirm

Transfer of Crypto between Custodial Methods

Step 6: Sending USDT from MetaMask to Coinbase

The screenshot shows the Coinbase 'My assets' page. The main balance is \$0.00. A modal titled 'Receive USDT on the Ethereum network' is displayed, showing a QR code and the address 0xD310...c94EDa. A second modal titled 'Your transaction was submitted' is overlaid on top, showing a confirmation of the transaction with a 'View transaction' link. The transaction details show 'You send -60.62 USDT' and an estimated value of '\$60.74'. A 'View activity' button is also visible at the bottom of the confirmation modal.

Receive USDT
on the Ethereum network

Your address
0xD310...c94EDa

This address can only receive USDT on the Ethereum network. Don't send USDT on any other network or it may be lost

Allow 2 min for processing

Your transaction was submitted

[View transaction](#)

Estimated changes

You send -60.62 USDT \$60.74

[View activity](#)

Transfer of Crypto between Custodial Methods

Step 7: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot displays the MetaMask Portfolio interface. The browser tabs at the top include 'My assets - Coinbase', 'Ethereum Transaction Hash (Tx)', 'Buy, sell & trade Ethereum and', and two instances of 'MetaMask Portfolio - Transactio'. The address bar shows the URL: `portfolio.metamask.io/networks/1/transactions/0xdc696887770468b130d60722b374710537dd48b7d4b24a021c90c223c8161ca1`.

The main content area features a dark theme with a sidebar on the left containing navigation options: Overview, Move crypto, Tokens, NFTs, Dapps, and Games. The central panel displays a 'Smart Transaction' confirmation:

- Smart Transaction** (today at 21:55)
- A green checkmark icon indicating completion.
- Message: 'Your transaction is complete' with a link to 'View all transactions'.
- You send:** -60.62319 USDT (from address 0x559...f9e9).
- You receive:** (to address 0xdac...1ec7).
- Transaction Details:**
 - Transaction Hash: 0xdc69...161ca1
 - Transaction Fee: 0.001 ETH (\$1.92)

The bottom right corner of the interface includes a chat icon and a 'Terms of Use' link.

Transfer of Crypto between Custodial Methods

Step 7: Reviewing On-Chain Transaction via Blockchain Explorer

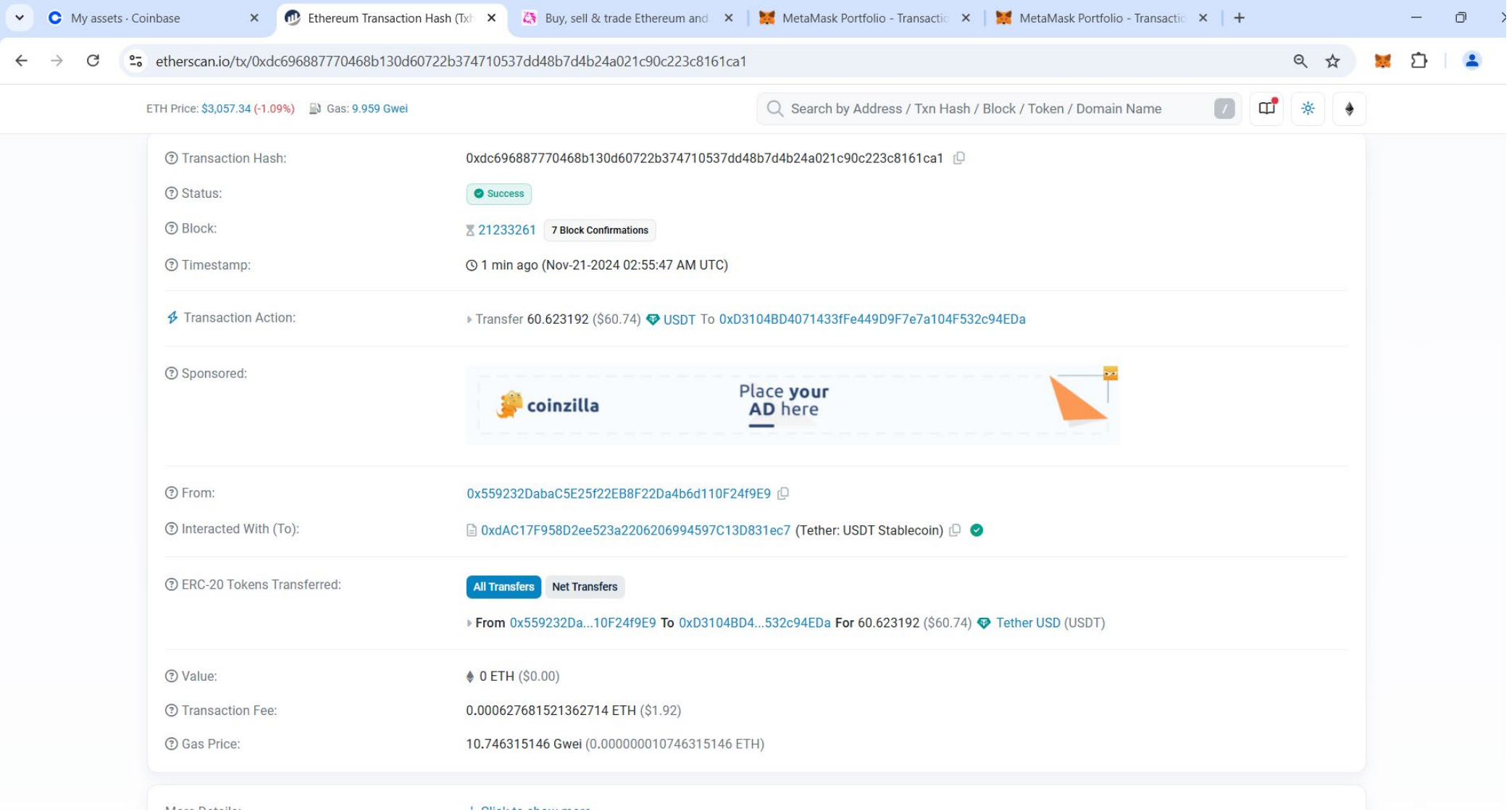
The screenshot displays the MetaMask Portfolio interface. The browser address bar shows the URL: `portfolio.metamask.io/networks/1/transactions/0xdc696887770468b130d60722b374710537dd48b7d4b24a021c90c223c8161ca1`. The interface is dark-themed and features a sidebar on the left with navigation options: Overview, Move crypto, Tokens, NFTs, Dapps, and Games. The main content area shows a transaction for USDT with a value of -60.62319. The transaction is from the user's account (0x559...f9e9) to another account (0xdac...1ec7). Below this, a 'Transaction Details' section lists the following information:

Field	Value
Transaction Hash	0xdc69...161ca1
Transaction Fee	0.001 ETH (\$1.92)
Blockchain	Ethereum
Status	Validated
Timestamp	Today At 21:55
Block Number	21233261
Block Hash	0x642...a740
Value	0
Method Id	0xa9059cbb
Gas Price	10746315146

At the bottom left of the interface, there is a 'Terms of Use' link. At the bottom right, there is a blue chat bubble icon.

Transfer of Crypto between Custodial Methods

Step 7: Reviewing On-Chain Transaction via Blockchain Explorer



The screenshot shows the Etherscan.io interface for a transaction. The browser tabs include 'My assets - Coinbase', 'Ethereum Transaction Hash (Tx)', 'Buy, sell & trade Ethereum and', and two 'MetaMask Portfolio - Transactio' tabs. The address bar shows the transaction hash: etherscan.io/tx/0xdc696887770468b130d60722b374710537dd48b7d4b24a021c90c223c8161ca1. The page header displays 'ETH Price: \$3,057.34 (-1.09%)' and 'Gas: 9.959 Gwei'. A search bar is present with the text 'Search by Address / Txn Hash / Block / Token / Domain Name'. The transaction details are as follows:

- Transaction Hash:** 0xdc696887770468b130d60722b374710537dd48b7d4b24a021c90c223c8161ca1
- Status:** Success
- Block:** 21233261 (7 Block Confirmations)
- Timestamp:** 1 min ago (Nov-21-2024 02:55:47 AM UTC)
- Transaction Action:** Transfer 60.623192 (\$60.74) USDT To 0xD3104BD4071433Fe449D9F7e7a104F532c94EDa
- Sponsored:** Advertisement for coinzilla with the text 'Place your AD here'.
- From:** 0x559232DabaC5E25f22EB8F22Da4b6d110F24f9E9
- Interacted With (To):** 0xdAC17F958D2ee523a2206206994597C13D831ec7 (Tether: USDT Stablecoin)
- ERC-20 Tokens Transferred:** All Transfers | Net Transfers
From 0x559232Da...10F24f9E9 To 0xD3104BD4...532c94EDa For 60.623192 (\$60.74) Tether USD (USDT)
- Value:** 0 ETH (\$0.00)
- Transaction Fee:** 0.000627681521362714 ETH (\$1.92)
- Gas Price:** 10.746315146 Gwei (0.000000010746315146 ETH)

Transfer of Crypto between Custodial Methods

Step 7: Reviewing On-Chain Transaction via Blockchain Explorer

The screenshot shows the Coinbase 'My assets' page. The main asset is Tether (USDT) with a balance of \$60.66, which is a decrease of \$13.91 from the previous day. The page includes a table of assets, a 'Staking' section, and a transaction review interface for USD. The transaction review interface shows a 'Review order' button and options to 'Send crypto', 'Receive crypto', 'Deposit cash', and 'Withdraw cash'.

My assets

\$60.66
▼ \$13.91 1D

See balance summary

Buy Sell Convert One-time order

0 USD Max

0 BTC

visa Pay with \$650.00 Limit
***2214

Buy Bitcoin

Review order

Send crypto
Receive crypto
Deposit cash
Withdraw cash

Name	Balance ↓	Today's return	Current price
Tether	\$60.66 00.023192 USDT	▼ \$0.01 0.02%	\$1.00 ▼ 0.04%

Staking

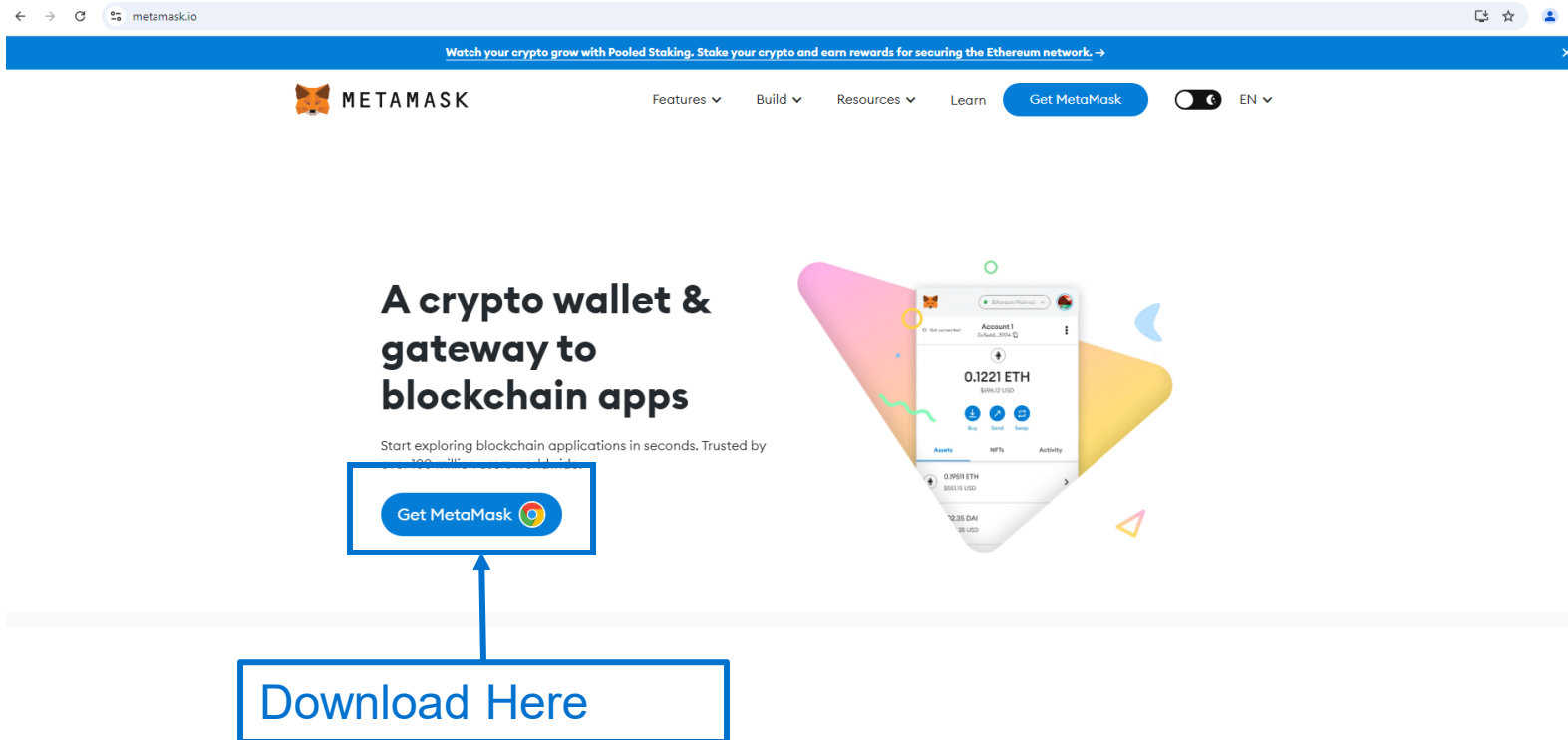
Earn up to 13.89% APY
Buy and stake eligible assets to earn rewards

Explore assets

Advanced

Setting up a MetaMask Wallet (Self Custody)

Step 1: Navigate to MetaMask.io and Download the Chrome Extension



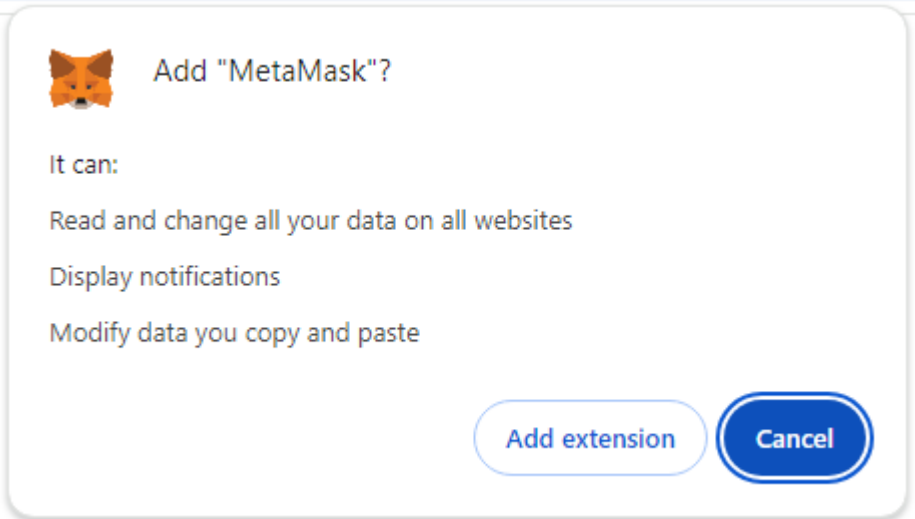
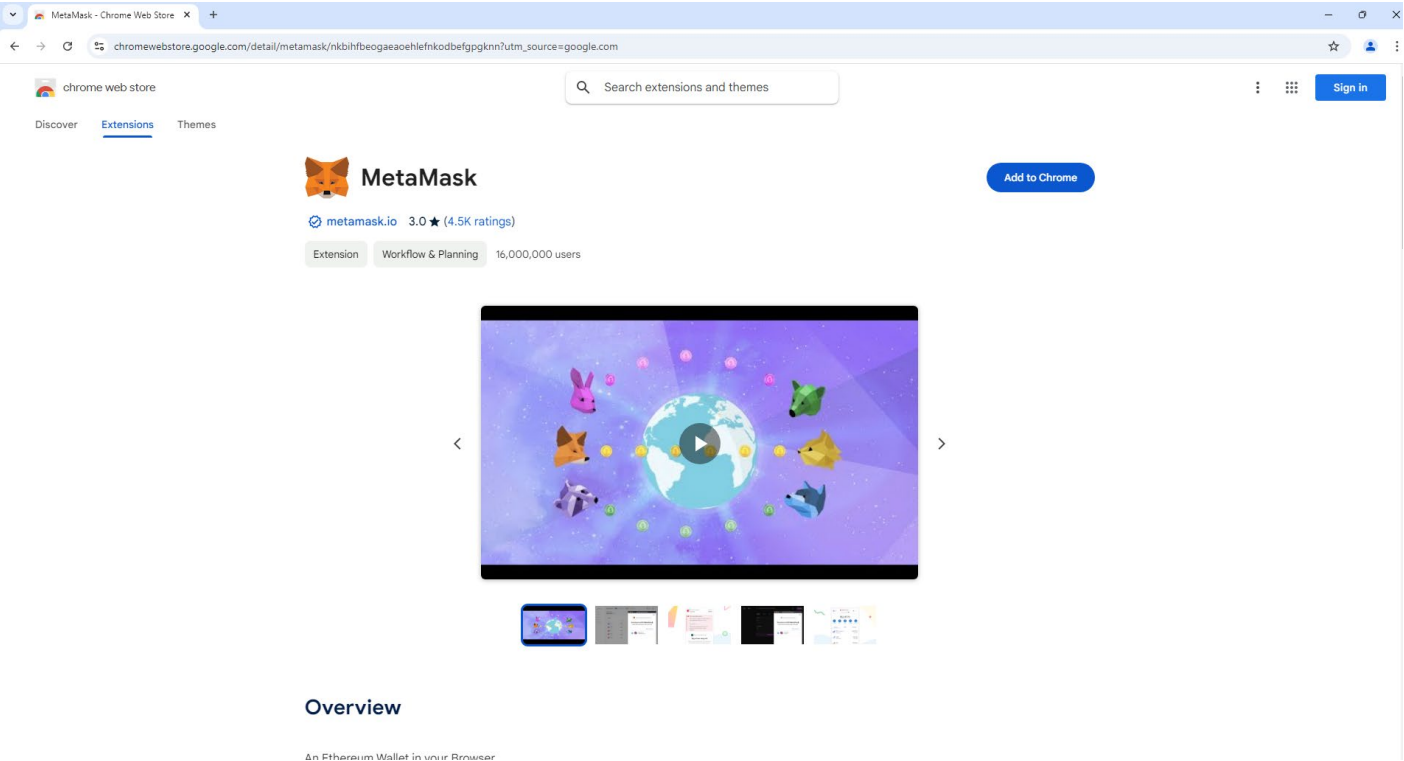
The image shows a screenshot of the MetaMask website (metamask.io) with a blue navigation bar at the top. The main content area features the text "A crypto wallet & gateway to blockchain apps" and a "Get MetaMask" button. A blue box labeled "Download Here" is positioned below the button, with an arrow pointing up to it. To the right of the text is a mobile app interface showing a balance of 0.1221 ETH. The website header includes the MetaMask logo, navigation menus for Features, Build, Resources, and Learn, and a "Get MetaMask" button with a toggle switch for EN.

Note: MetaMask can be installed on various browsers. Listed below are compatible browsers.

- Google Chrome
- Mozilla Firefox
- Microsoft Edge
- Brave
- Opera

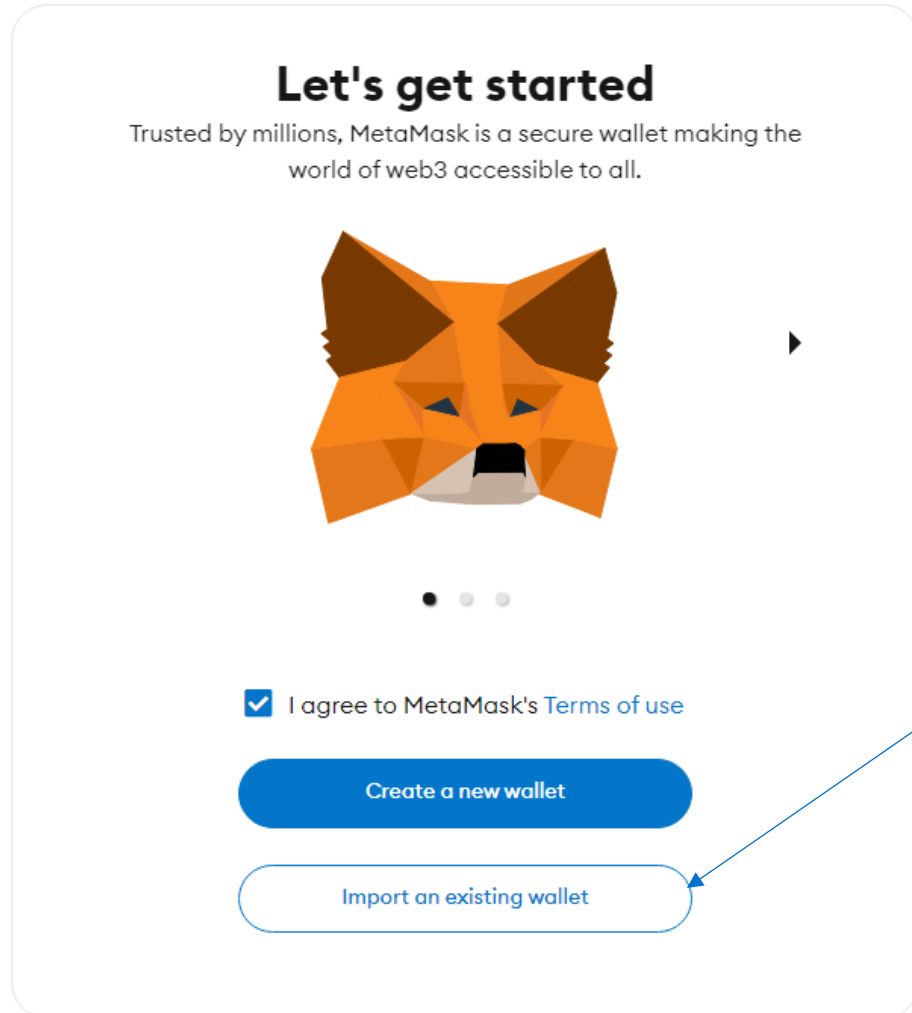
Setting up a MetaMask Wallet (Self Custody)

Step 2: Add MetaMask as an Extension



Setting up a MetaMask Wallet (Self Custody)

Step 3: Create a New Wallet



Once you have MetaMask added as an Extension, you are now able to create your Self-Custody wallet.

Be sure before proceeding that you do agree with MetaMask's "Term of Use"

If you have an existing wallet, you can select this option and use your seed phrase to recover your account.

Setting up a MetaMask Wallet (Self Custody)

Step 4: Create a Password for your MetaMask Wallet



1 — 2 — 3
Create password Secure wallet Confirm secret recovery phrase

Create password

This password will unlock your MetaMask wallet only on this device. MetaMask can not recover this password.

New password (8 characters min) [Show](#)

Confirm password

I understand that MetaMask cannot recover this password for me. [Learn more](#)

Create a new wallet

Be sure to opt-out of sharing your data with MetaMask

Help us improve MetaMask

We'd like to gather basic usage and diagnostics data to improve MetaMask. Know that we never sell the data you provide here.

[Learn how we protect your privacy while collecting usage data for your profile.](#)

When we gather metrics, it will always be...

- ✓ **Private:** clicks and views on the app are stored, but other details (like your public address) are not.
- ✓ **General:** we temporarily use your IP address to detect a general location (like your country or region), but it's never stored.
- ✓ **Optional:** you decide if you want to share or delete your usage data via settings any time.

We'll use this data to learn how you interact with our marketing communications. We may share relevant news (like product features).

We'll let you know if we decide to use this data for other purposes. You can review our [Privacy Policy](#) for more information. Remember, you can go to settings and opt out at any time.

No thanks I agree

Create a password that you are comfortable with however be sure to add complexity to your password so it cannot be easily guessed. Also, secure this password as this will be used to access your wallet in the event you are logged out on your browser!

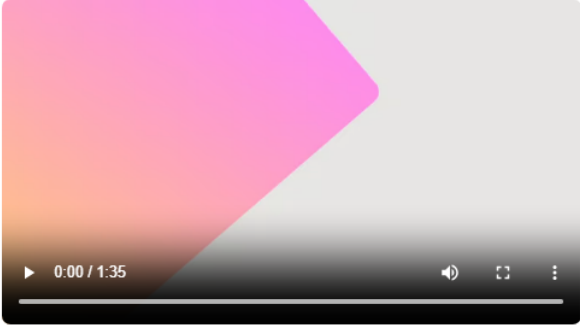
Setting up a MetaMask Wallet (Self Custody)

Step 5: Secure your wallet using a Secret Recovery Phrase

1 Create password 2 Secure wallet 3 Confirm secret recovery phrase

Secure your wallet

Before getting started, watch this short video to learn about your Secret Recovery Phrase and how to keep your wallet safe.



0:00 / 1:35

Remind me later (not recommended) Secure my wallet (recommended)

What is a Secret Recovery Phrase?
Your Secret Recovery Phrase is a 12-word phrase that is the "master key" to your wallet and your funds

How do I save my Secret Recovery Phrase?

- Write down and store in multiple secret places
- Store in a safe deposit box

Should I share my Secret Recovery Phrase?
Never, ever share your Secret Recovery Phrase, not even with MetaMask!

If someone asks for your recovery phrase they are likely trying to scam you and steal your wallet funds.

It is highly recommended that when setting up your MetaMask wallet that you secure your account by generating the Secret Recovery Phrase.

Your Secret Recovery Phrase will be a 12-word phrase that allows a user to be able to access their wallet in the event you forget your password.

SECURE YOUR SECRET RECOVERY PHRASE AND NEVER SHARE THIS WITH ANYONE!!!!

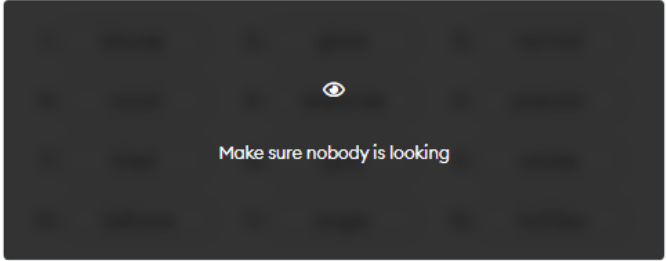
1 Create password 2 Secure wallet 3 Confirm secret recovery phrase

Write down your Secret Recovery Phrase

Write down this 12-word Secret Recovery Phrase and save it in a place that you trust and only you can access.

Tips:

- Write down and store in multiple secret places
- Store in a safe deposit box



Make sure nobody is looking

Reveal Secret Recovery Phrase

Setting up a MetaMask Wallet (Self Custody)


Step 6: Confirm your Secret Recovery Phrase to finalize creation of your MetaMask Wallet

1 — Create passcode 2 — Secure wallet 3 — Confirm seed phrase

Confirm Secret Recovery Phrase

Enter the missing words to confirm your Secret Recovery Phrase.

1. hair	2. phrase	3. <input type="text"/>
4. <input type="text"/>	5. internet	6. house
7. brick	8. <input type="text"/>	9. woman
10. bananas	11. apple	12. chase



Congratulations!

Your wallet is protected and ready to use. You can find your Secret Recovery Phrase in **Settings > Security & Privacy**.

Keep a reminder of your Secret Recovery Phrase somewhere safe. If you lose it, no one can help you get it back. Even worse, you won't be able access to your wallet ever again. [Learn more.](#)

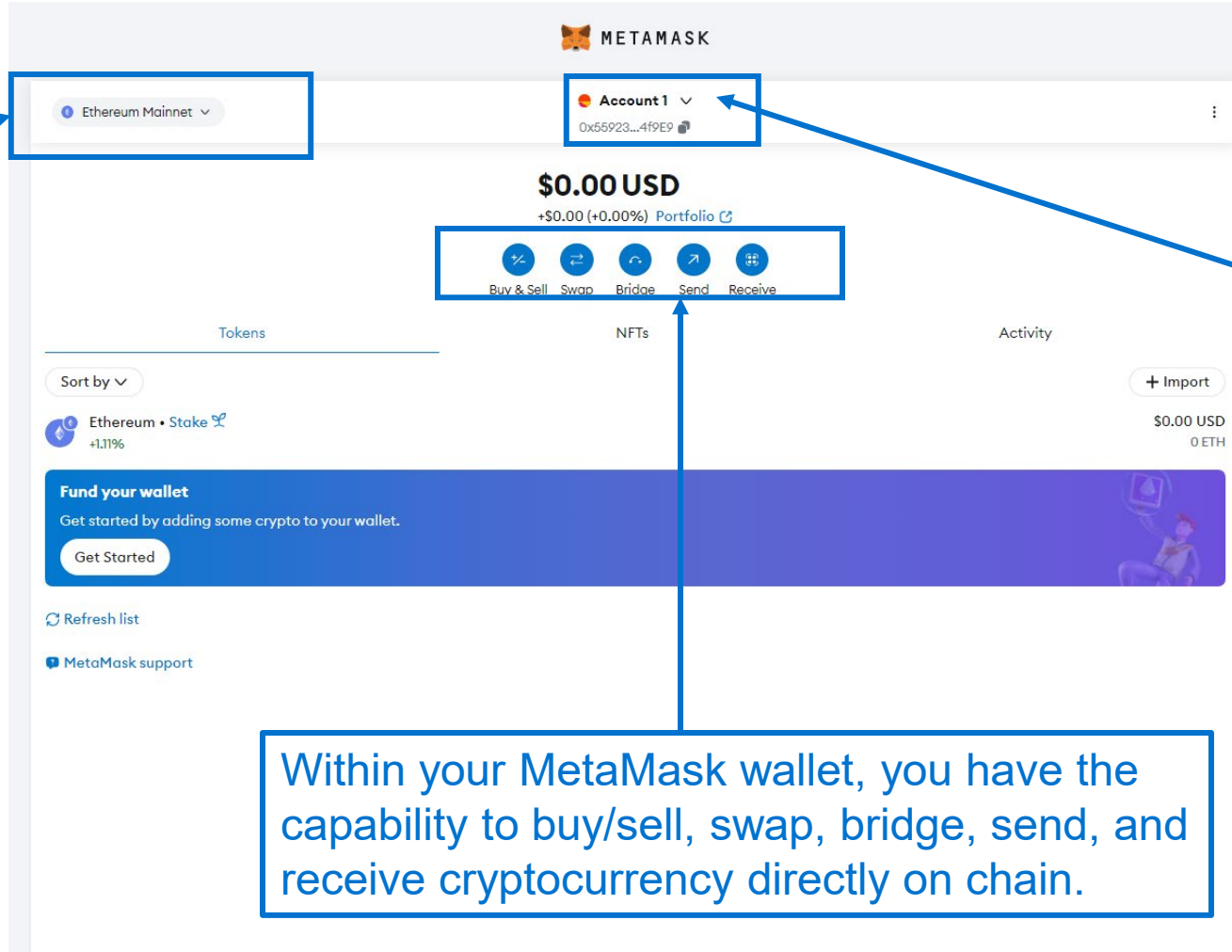
[Manage default privacy settings](#)

Settings are optimised for ease of use and security. Change these any time.

Note: This secret recovery phrase was pulled down from Google Images and does not relate to the MetaMask account created for this demonstration.

Setting up a MetaMask Wallet (Self Custody)

Step 7: Understanding the MetaMask Wallet Dashboard



Blockchain Network Connection: By default, your MetaMask wallet will be connected to Ethereum Mainnet. You can configure your connection to other network, i.e., Binance Smart Chain or Arbitrum. Be sure when conducting onchain transactions that you are connected to the right network.

Public Address: This key is used to encrypt messages intended for a specific recipient and can be freely shared with others to receive blockchain assets.

Within your MetaMask wallet, you have the capability to buy/sell, swap, bridge, send, and receive cryptocurrency directly on chain.

Setting up a Coinbase Account (Custodial)

Step 1: Navigate to Coinbase.com to Sign up for an Account

Try crypto. Get \$50 in bitcoin. It's that easy. →

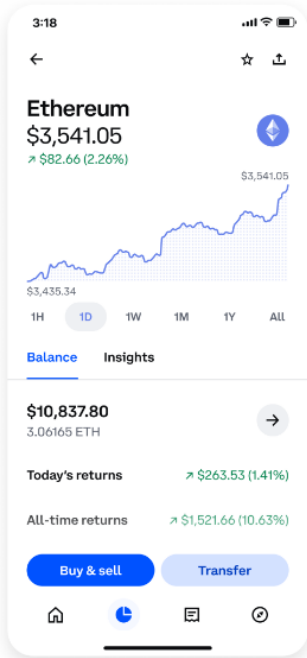
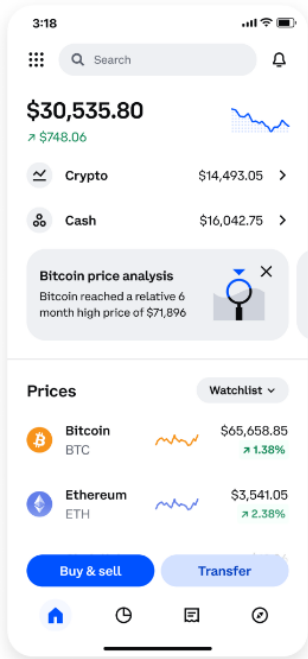
coinbase

Cryptocurrencies Learn Individuals Businesses Developers Company



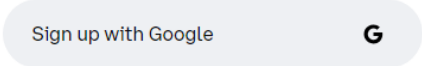
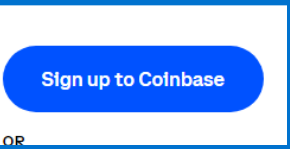
Sign in

Sign up



The future of money is here

We're the most trusted and secure place for people and businesses to buy, sell, and manage crypto.



Buy your first crypto and get \$50 in BTC¹

Setting up a Coinbase Account (Custodial)

Step 2: Creating your Coinbase Account as an Individual using your Email Address

Welcome! Who are you creating this account for?



Individual

Trade and transfer crypto, earn rewards, and hold crypto securely



Business

Manage teams and portfolios, accept crypto payments, access APIs, and more

Not sure? [Explore our trading platforms](#)

Create your account

Access all that Coinbase has to offer with a single account

Email

daniel.johnston@us.forvismazars.com

Continue

OR

Sign up with Google



Sign up with Apple



By creating an account you certify that you are over the age of 18 and agree to the [Privacy Policy](#) and [Financial Privacy Notice](#).

Your email address will be used to access your Coinbase account. If you have forgotten your password, your email address will be used to reset your password so be sure your email account is secured with a strong password.

Enter the 6-digit code we emailed you

Verify your email daniel.johnston@us.forvismazars.com. This helps us keep your account secure by verifying that it's really you.

Enter code

Resend code in 27

[Go back](#)

Setting up a Coinbase Account (Custodial)

Step 3: Create a Password to your Coinbase Account

Create a password

Protect your account by creating a strong password.

New password

A minimum of 8 characters
 Lower and uppercase case letters
 At least 1 number
 At least 1 symbol

Continue

Create a password that you are comfortable with however be sure to add complexity to your password so it cannot be easily guessed. Do not forget to secure your password as this will be used to login to your Coinbase account each time. Never let your browser save your password!!

Setting up a Coinbase Account (Custodial)

Step 4: Input your Full Name and Telephone for Verification over Account

What should we call you?

Enter your first and last name. You can make changes later on by verifying your account.

First name

Last name

Continue

Verify your phone number

Enter your phone number to receive a verification code.

Phone number

Continue

Messaging and data rates may apply. Message frequency depends on account activity. Reply HELP for support or STOP to opt out of future alerts. Opting out won't affect two-step verification SMS. Click for [User Agreements](#) and [Privacy Policy](#).

Enter the 6-digit code we texted to +x xxx xxx xx96

This helps us keep your account secure by verifying that it's really you.

Enter code

Resend Code

[Go back](#)

Note: When verifying your phone number. You may not receive a verification code on your first submission. Please wait till the “Resend Code” countdown has elapsed and request the code again. This should work!

Setting up a Coinbase Account (Custodial)

Step 5: Complete Account Setup per KYC / AML Regulations



Complete account setup

[Regulations](#) requires us to collect and verify your information



Create your account

Add a password and secure your account

Complete



About you

Add personal details and financial status

⌚ Approx. 2 min



Verify your identity

Upload and verify your identity documents

⌚ Approx. 5 min



I certify that I am 18 years of age or older, I agree to the [User Agreement](#).

Submit

[Sign out](#)

KYC (Know Your Customer) regulations are essential for cryptocurrency exchanges to ensure compliance with financial laws and to enhance security. Here's a breakdown of what KYC involves and why it's important:

- **Identity Verification:** KYC requires users to provide personal information and documents, such as a government-issued ID and proof of address, to verify their identity.
- **Anti-Money Laundering (AML):** KYC helps exchanges comply with AML regulations, which aim to prevent money laundering and terrorist financing.
- **User Accountability:** By linking transactions to verified identities, KYC increases accountability and reduces the risk of illegal activities.
- **Building Trust:** KYC fosters trust among users and investors, as it ensures that all participants have been vetted.
- **Security:** Enhanced security measures, such as biometric verification, are often part of the KYC process to protect user data and prevent fraud

Setting up a Coinbase Account (Custodial)

Step 5: Complete Account Setup per KYC / AML Regulations

Select your citizenship

Coinbase is [legally required](#) to collect this information. If you're a citizen of more than one country, please pick one.

Country

us United States 


Submit

[Sign out](#)

Your personal details

We are required by [financial regulations](#) to ask this question. Enter the last 4 digits of your social security number to begin.

Enter the last 4 digits of your SSN

 **What do we do with this info?**

We work with a third party to verify your identity, but both Coinbase and our partners ensure that your data is always encrypted and secure. See our [Privacy Policy](#).

Continue

[Sign out](#)

Setting up a Coinbase Account (Custodial)

Step 5: Complete Account Setup per KYC / AML Regulations

Is this info accurate?

Please double-check that the info here matches your government-issued ID.

Daniel Johnston
Full name

[Redacted]
Date of birth

[Change](#)

....
Last 4 digits of your SSN

[🔗](#)

[Redacted]
Most recent address

[Change](#)

[Confirm](#)

[Sign out](#)

To comply with [regulations](#) and protect you from fraud, we need to confirm the information below.

What will you use Coinbase for?

Select an option

What is your source of funds?

Select an option

What is your primary employment status?

Select an option

[Continue](#)

[Sign out](#)

Verify your info

Coinbase is legally required to collect this information.

What's the total value - including cash and crypto - that you expect to transfer to your Coinbase account in the next 12 months?

Select an option

What industry do you work in?

Select an option

[Submit](#)

[Sign out](#)

Setting up a Coinbase Account (Custodial)

Step 6: Understanding the Coinbase Dashboard

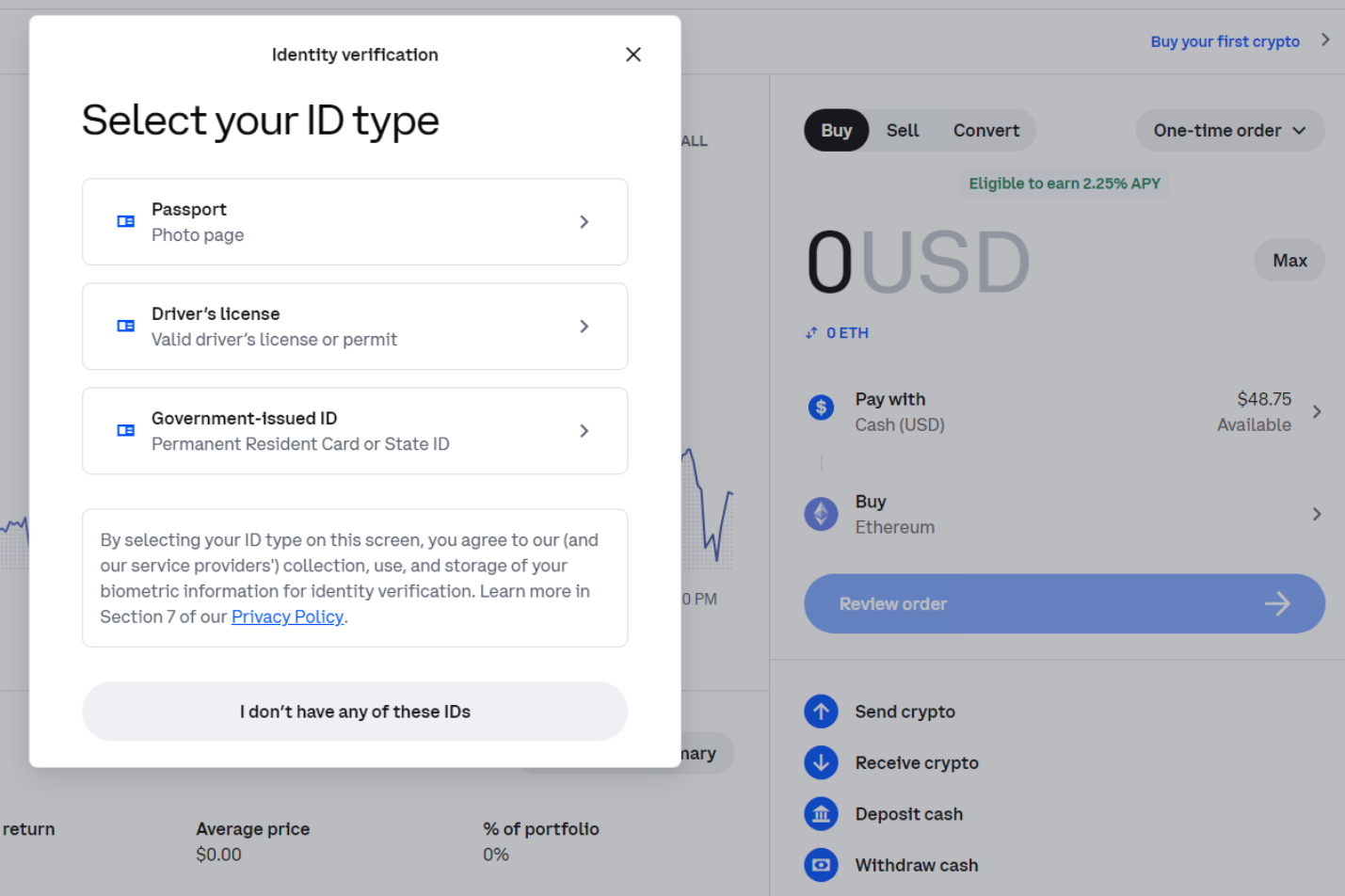
The image shows a screenshot of the Coinbase dashboard. On the left is a navigation sidebar with options like Home, My assets, Transactions, Explore, Futures, Learning rewards, Coinbase One, Invite friends, Card, and More. The main content area is titled 'Home' and includes a welcome message for 'DANIEL JOHNSTON', a progress bar for 'Earn up to \$200 in BTC' (2/4), and a 'Fund your account' section. Under 'Remaining steps', it lists 'Account created', 'Verify your info', 'Add a payment method', and 'Buy your first crypto'. A blue callout box points to the 'Add payment method' button, stating: 'Add your payment method. This could be done using your bank account or debit card. This will be used to on and off ramp your assets.'

On the right, a modal window for buying assets is shown. It features a search bar, tabs for 'Buy', 'Sell', and 'Convert', and a dropdown for 'One-time order'. The main display shows '0 USD' and '0 BTC'. Below this are options to 'Pay with Cash (USD)' and 'Buy Bitcoin', each with a right-pointing arrow. A 'Review order' button is at the bottom. A blue callout box points to this modal, stating: 'Once you have funded your Coinbase account, you can buy, sell, or convert your cryptocurrency.'

Below the modal, there are buttons for 'Send crypto', 'Receive crypto', 'Deposit cash', and 'Withdraw cash'. The 'Deposit cash' and 'Withdraw cash' buttons are also highlighted with a blue callout box.

Setting up a Coinbase Account (Custodial)

Step 7: Submission of Identification (to send/receive crypto) for KYC/AML Regulation



The time it takes for Coinbase to verify your identification can vary. Typically, the process takes between 10 minutes to 48 hours. This is dependent on the volume of requests and the clarity of the documents submitted.

03

Risks & Controls

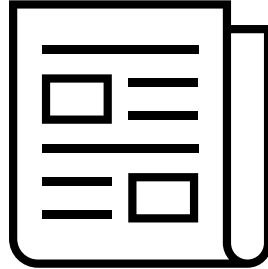


In the News – Case Studies

Real incidents and what could have been done differently!

Custodial Wallet

- **Hackers Steal \$100,000+ Worth of BTC From Coinbase User (May 2019)**
- Attacker used a SIM-swapping attack. Attacker requested a telecom carrier to redirect the traffic of a mobile phone number to a device which they control. This device was used to obtain two-factor-authentication (2FA) codes to reset their email password, and then their Coinbase password, granting control over the victim's online account.



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Self-Custodial Wallet

- **MetaMask Issues Warning Following \$650K iCloud Phishing Scam (April 2022)**
- The victim received multiple text messages to reset his Apple account password. The Attacker then called the victim posing as Apple Support investigating suspicious activity. The victim provided the attacker with a six-digit verification code. As the victim stored his wallet seed phrase in his iCloud account, the attacker gained access to his MetaMask wallet and transferred all funds.

[Source: Hackers Steal \\$100,000+ Worth of BTC From Engineering Manager at Crypto Custodian BitGo](#)

[Source: MetaMask Issues Warning Following iCloud Phishing Scam](#)

Controls for Custodial Wallets

Third party controls your private keys

Here are some practices you can follow to better secure your custodial accounts:

- Use Reputable Services
- Enable Two-Factor Authentication
- Regularly Monitor Accounts – review transaction logs for unauthorized access
- Strong Password Practices – use unique, complex passwords for accounts
- Regular Audits – Ensure the custodian undergoes regular security audits



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Controls for Self-Custodial Wallets

You control your private keys

Here are some practices you can follow to better secure your wallets:

- Secure Private Keys and Seed Phrases
- Avoid Cloud Storage for Key Backups
- Keep Wallet Software Updated
- Use Hardware Wallets
- Be Cautious of Third-Party Integrations
- Stay Vigilant Against Phishing Attempts



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Some Common Scams!

Watch out for these to protect your digital assets

- Phishing – Look out for unsolicited messages asking for personal information and illegitimate websites asking you to connect your wallet
- Ponzi Schemes – Be cautious when you see a project promising high returns on crypto investments
- Fake Wallets – Scrutinize any wallet where you enter your seed phrase
- Verify Sources and Use Official Apps – Make sure you only download wallets and interact with projects through official sources
- **Stay Informed!**



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