# Bridging Financial Innovation & Humanitarian Impact

## A Practical Introduction to Blockchain and Stablecoins

for INGOs and Development Organizations
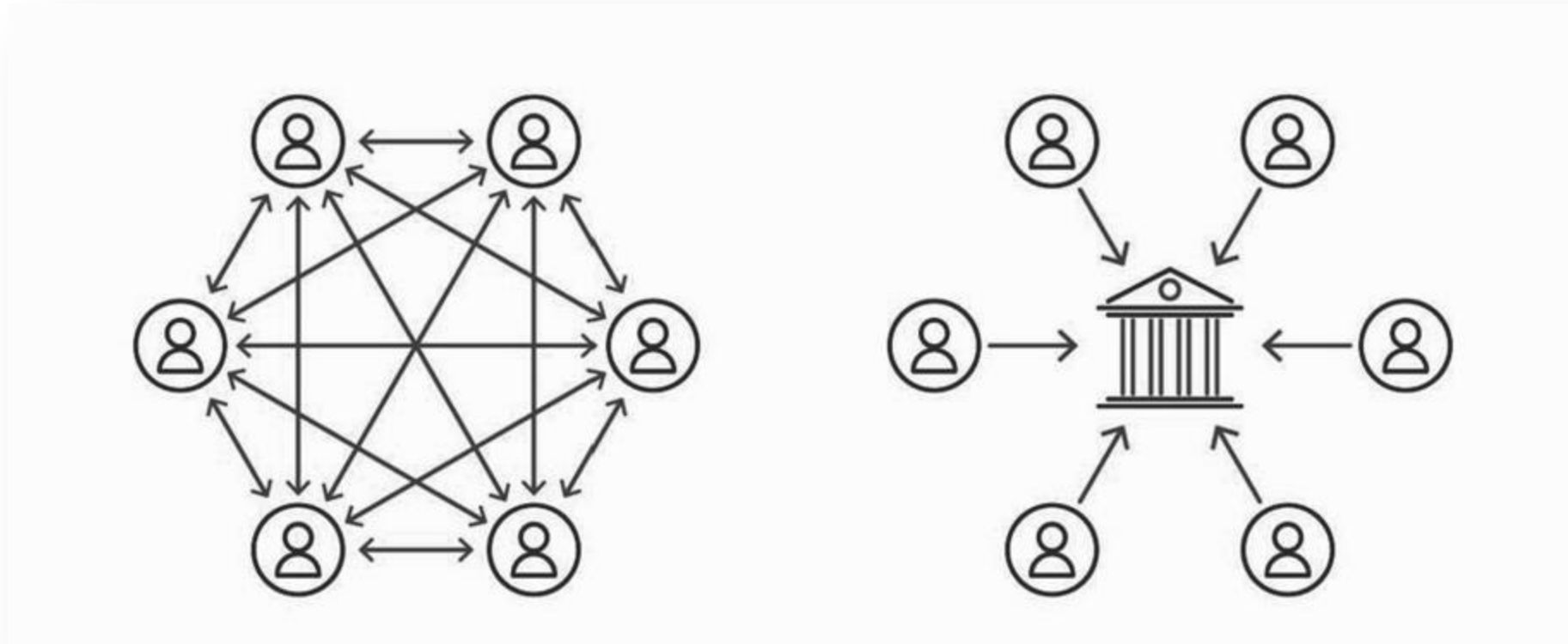
# Objectives of This Session

1. Overview Of Blockchain, Crypto, Stablecoins, Wallets and Keys

2. How To Use Stablecoins In Aid

3. Live Examples

# A Blockchain is a Distributed Database



**Decentralized**          versus          **Centralized**

A blockchain is a distributed database or ledger that is shared among the nodes of a computer network.

# What is a Blockchain?

## Distributed Ledger

A blockchain is a type of **shared database**.

Data is stored in blocks that are linked together using cryptography

## Immutable Records

Once data is entered into a blockchain, it **cannot be altered**, making the history of transactions permanent and verifiable

## Decentralization

Unlike centralized databases, blockchains are decentralized, meaning no single person or group has control. Instead, **all users collectively retain control**.
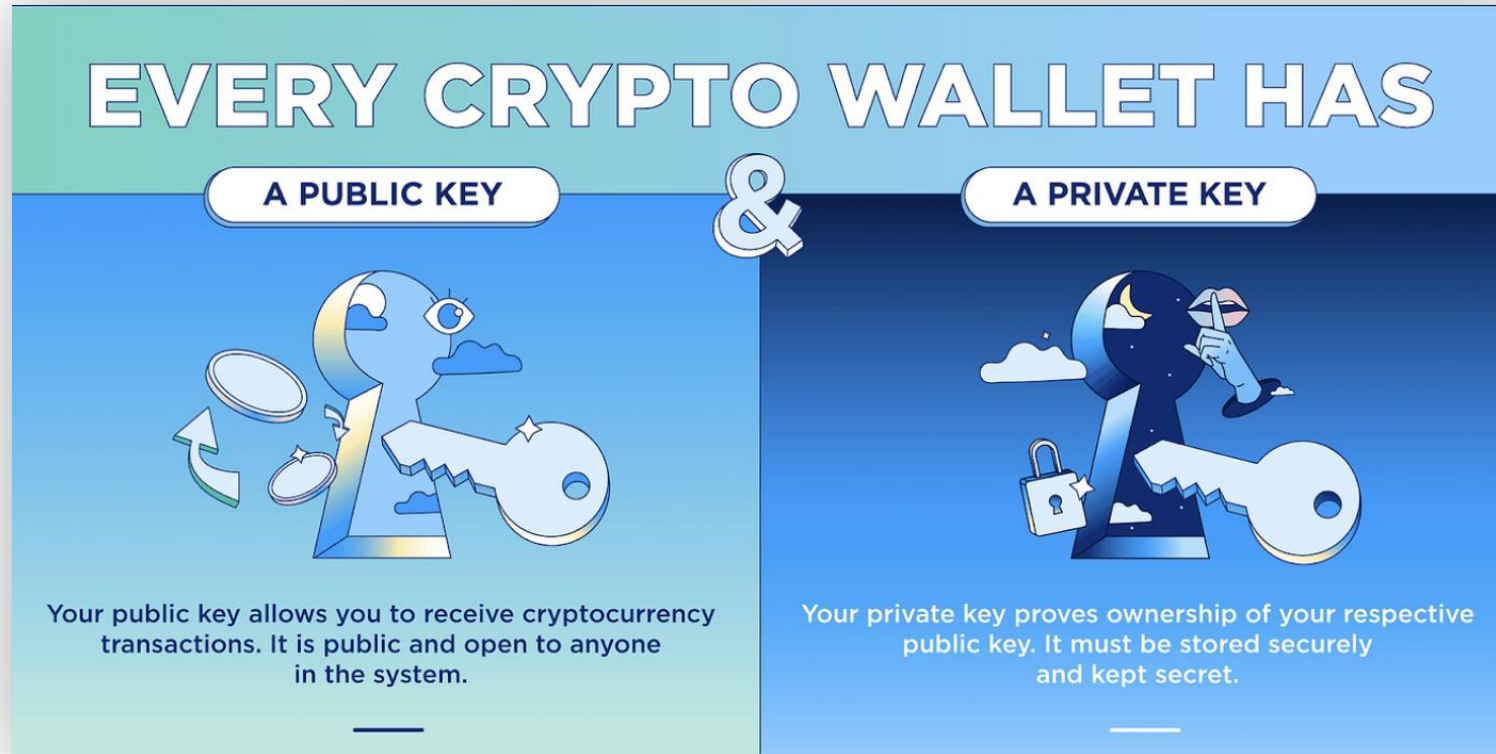
## Smart Contracts

Self-executing contracts with the terms of the agreement directly written into code.

# Transactions are Cryptographically Secure

## through the use of public/private keys



**Examples**
of keys

ltc1q2807r9z5vtul5cgwe
wdtdk0hhnnarfkqrk0yq2

witch collapse practice feed shame
open despair creek road again ice least

# Types of Wallets

## Custodial Wallets

Someone else – a trusted 3rd party (company or institution) - holds the keys for you.

## Non-Custodial Wallets

You hold your keys and only you have control over your assets. No need for anyone else.
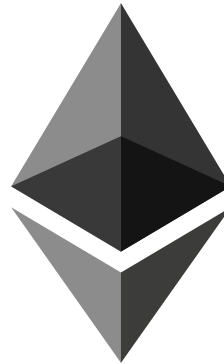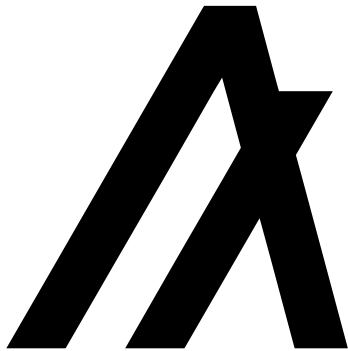
*However, if you lose your keys…* 😭

- Easy to use
- Easy to recover (like a regular web 2.0 account),
- Dependent on a 3rd party (as with current online banking or mobile money)

e.g. HesabPay

Some new **Multi Party Computation (MPC)** systems provide an easier user experience while still being a non-custodial wallet.

e.g. Pera Wallet

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# What is a Cryptocurrency?

A **cryptocurrency** is a **digital or virtual form of money** that uses **cryptography** to secure transactions, control the creation of new units, and verify transfers on a **blockchain**.
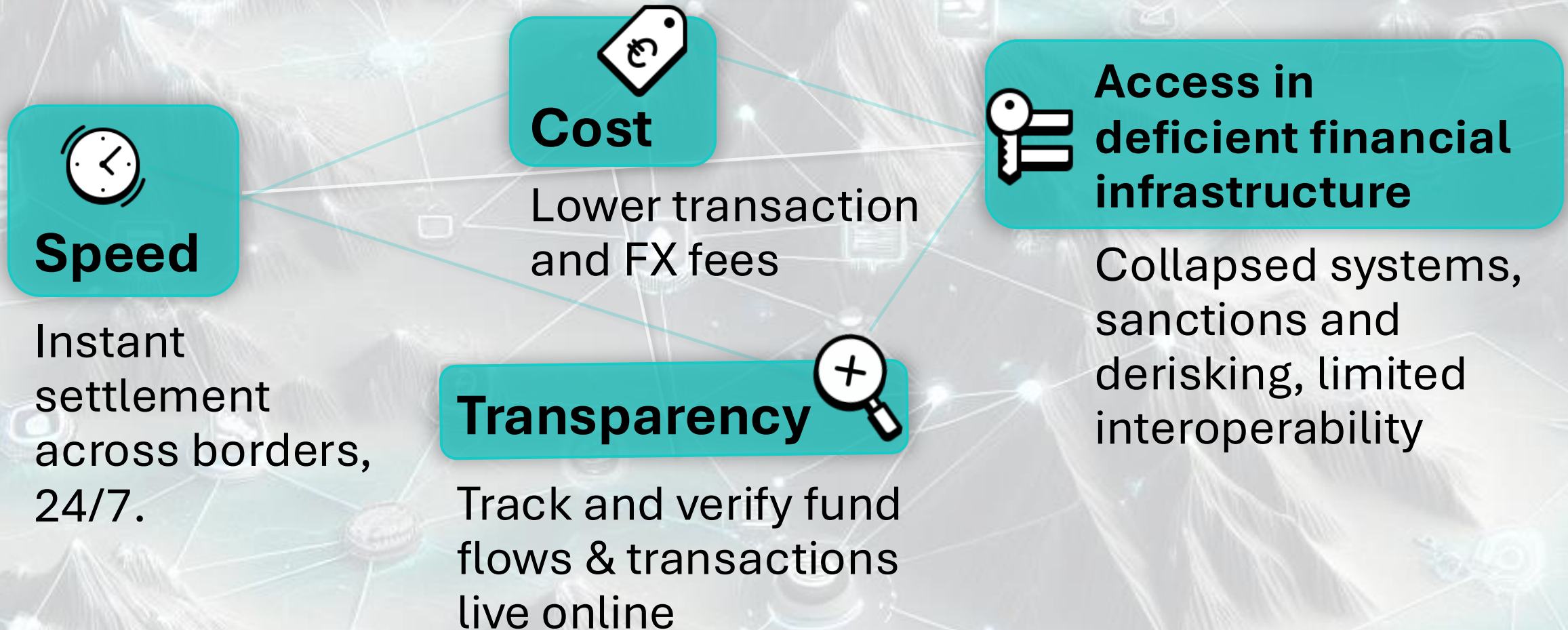
# Stablecoins - versus other Currencies

| Feature | Stablecoins (e.g., USDC or USDT) | Cryptocurrencies (e.g., Bitcoin) | Traditional Payments (Bank Transfers) |
|---|---|---|---|
| **Value stability** | Pegged to fiat (USD, EUR) | Highly volatile | Stable |
| **Speed** | Near-instant | Variable | Slow (1–3 days) |
| **Cost** | Low fees | Variable | Higher intermediary costs |
| **Access** | Global, 24/7 | Global, 24/7 | Banking hours only |
| **Transparency** | Public ledger | Public ledger | Opaque intermediaries |

**Stablecoins = *the speed of crypto* + *the stability of traditional money***
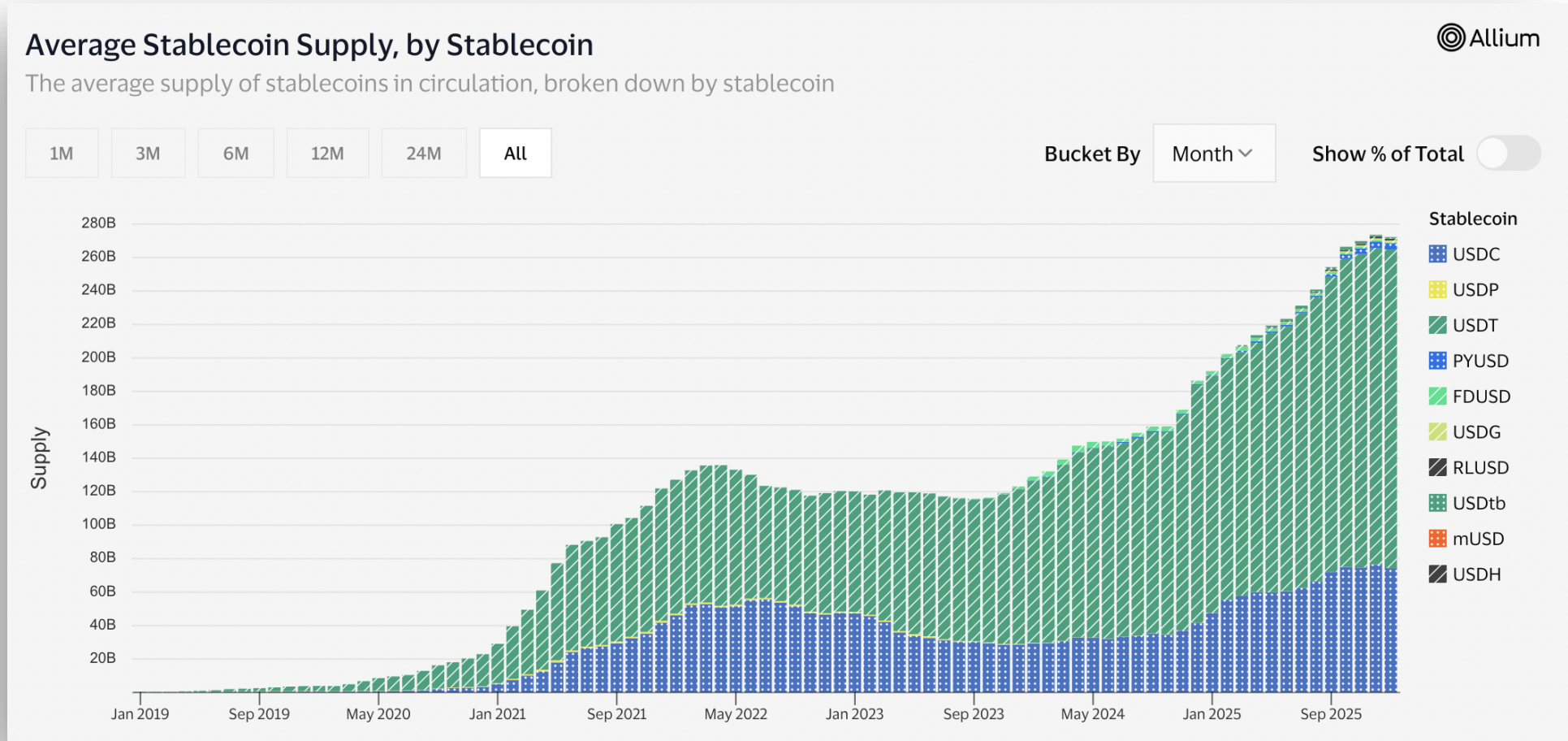
# Why Stablecoins Are Gaining Traction Globally

**Cost**

Lower transaction and FX fees

**Access in deficient financial infrastructure**

Collapsed systems, sanctions and derisking, limited interoperability

**Speed**

Instant settlement across borders, 24/7.
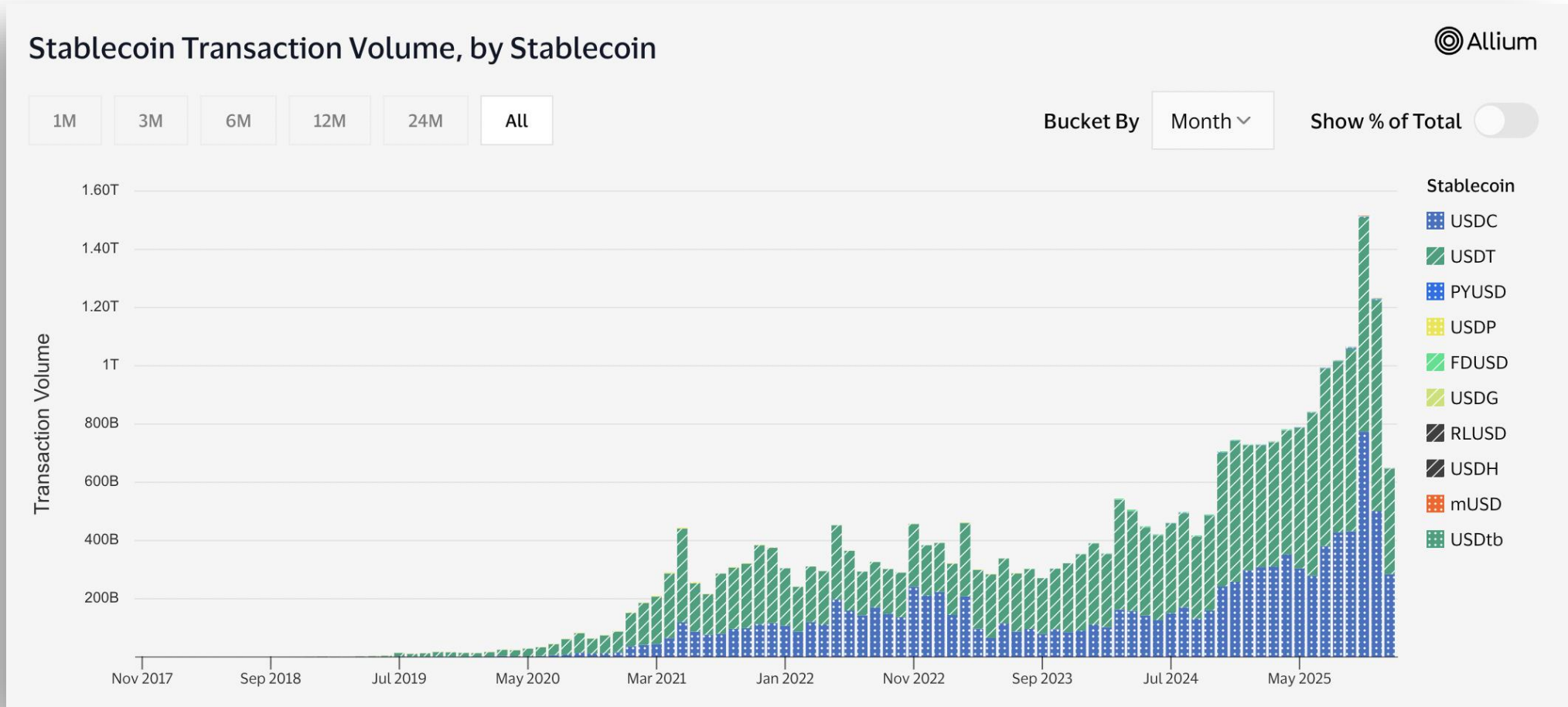
**Transparency**

Track and verify fund flows & transactions live online

# Over $260 billion in stablecoins in circulation
## – dominated by USDT and USDC

# $1.2 T transacted in December 2025



Stablecoin Transaction Volume, by Stablecoin

Allium

1M  3M  6M  12M  24M  **All**

Bucket By: Month

Show % of Total

**Stablecoin**
- USDC
- USDT
- PYUSD
- USDP
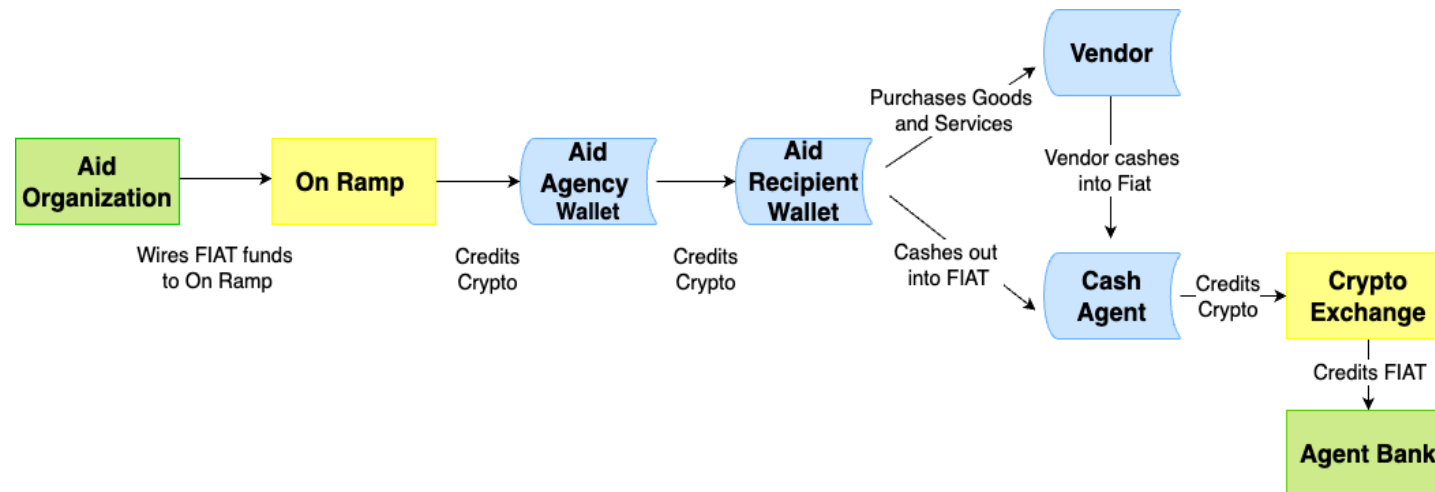- FDUSD
- USDG
- RLUSD
- USDH
- mUSD
- USDtb

# Flow of Funds

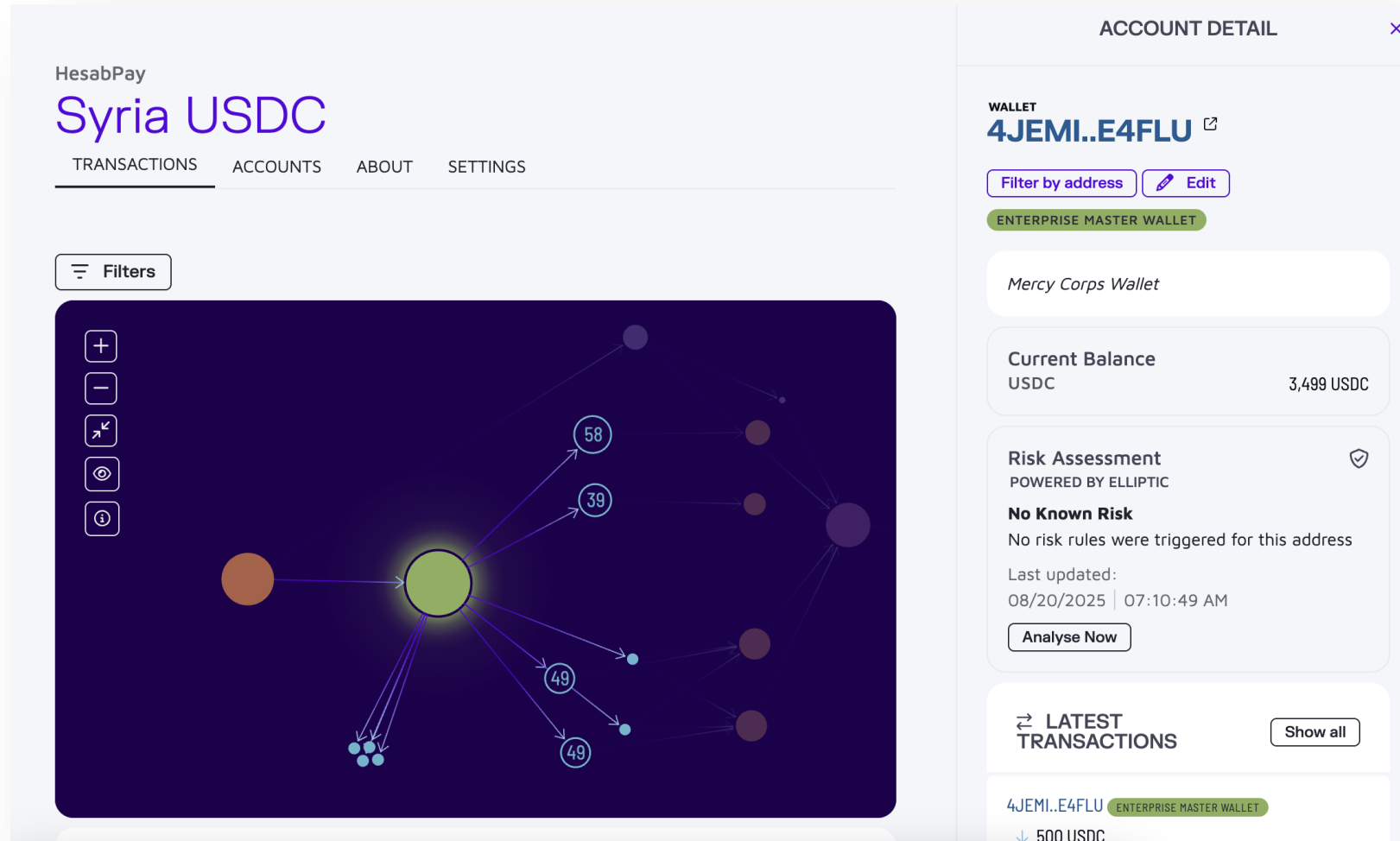**Scrutiny** is increasing on how aid funds are used.

Aid Diversion **/** Terrorist Financing **/** Value For Money

Funds sent on a public blockchain are **immediately visible** to anyone with internet access

IF they know the public keys of participating wallets.

# Tracking a Live Flow of Funds: Aid Trust Portal

# Data Privacy

*Blockchain transparency is a double-edged sword*

Public keys are **pseudonymous** not anonymous

IF you know someone's **public key**, you can easily see their wallet activity online.

Blockchains are **immutable** – they can never be altered

Extreme care is needed regarding what data to place on chain: e.g. no personal or demographically identifiable information.

Centralized databases linking the PII of individuals to wallet addresses need to be very securely managed.

# Compliance

**Different jurisdictions have different regulations** for cryptocurrencies.

Regulation is evolving fast everywhere.

**Banks' risk appetites** determine **on-ramps' ability** to support cross-border crypto transfers for aid organizations.

Most custodial **wallets require KYC of the owner**.

This can be difficult if formal IDs are limited and digital literacy is low, but can be an advantage in proving aid got where it was meant to go.

Requires adaptation at both **field and HQ** levels //close coordination with **Treasury //** and an **HQ-level wallet**.

# Use Cases in Humanitarian Aid

## Blockchain

- **WFP Building Blocks**
  Jordan and Bangladesh
  Private chain, de-duplication, coordination, cash transfers

- **OXFAM Unblocked Cash**
  Vanuatu, Solomon Islands, Papua New Guinea Venezuela, Zimbabwe & Malawi
  MPCA - poor infrastructure, scattered caseload, speed, cost, transparency

## Blockchain + Stablecoins

- Mercy Corps and HesabPay – USDC - Syria

- GIZ and Digibankar – USDC - Syria

- NRC and CoalaPay – USDT - Sudan

- WFP and HesabPay – HAFN - Afghanistan

- UNHCR and HesabPay – HAFN - Afghanistan

- UNHCR/Moneygram/CIRCLE – USDC - Ukraine

# Use Cases in Humanitarian Aid
## In Afghanistan



**Large-scale humanitarian delivery:** UNHCR and HesabPay provided digital wallets to **130,000 refugee returnee households** (≈ **1 million individuals**), delivering **over USD 30 million** in cash.

**Faster, cheaper, transparent:**
The HesabPay model enabled **quicker disbursements, lower costs, and greater transparency** than other financial service providers operating in Afghanistan.

**Local, compliant digital currency:** All payments made with the **digital Afghani**, native to HesabPay, **minted on the Algorand blockchain** and **fully backed by reserves held in local banks**.

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# Use Cases in Humanitarian Aid
## In Sudan

### Significantly more value:

Partners received **30–34% more value**, and local responders received **41.7% more local currency**, with **no service fees** compared to traditional banking routes.
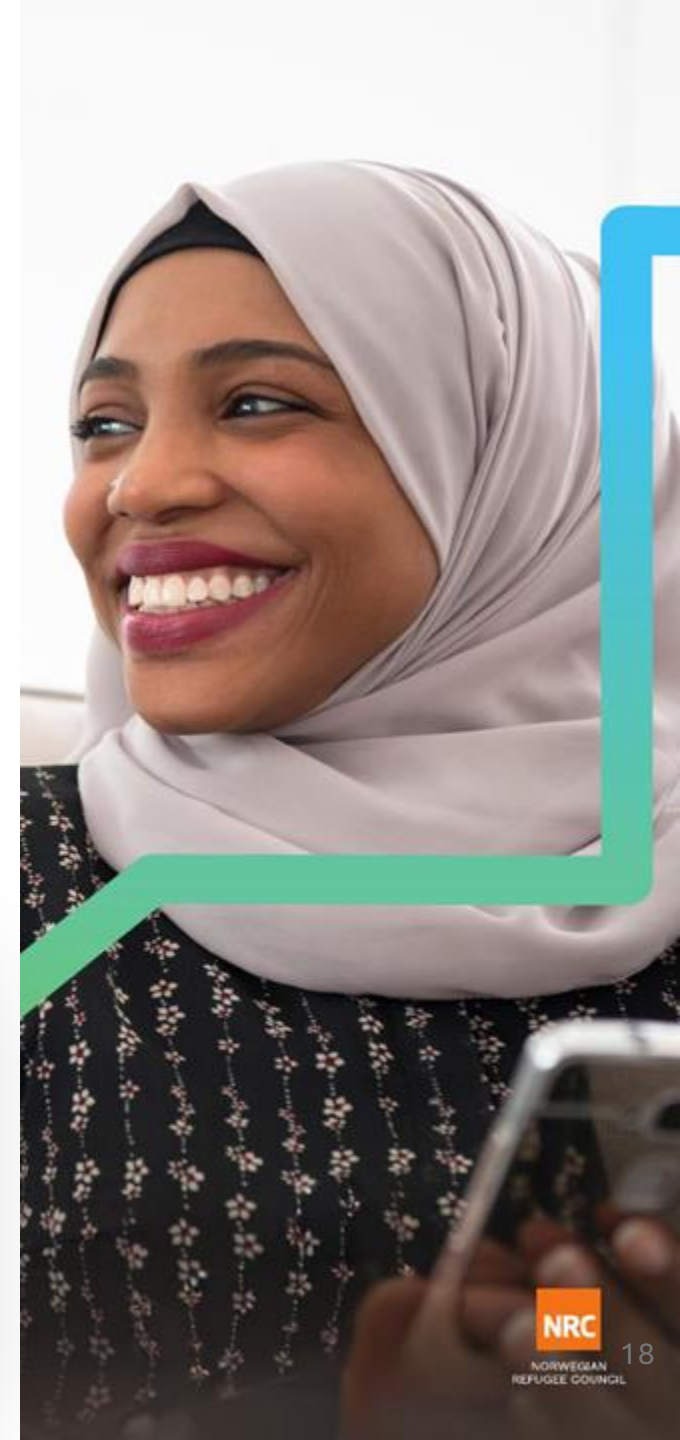
### Much faster, less friction:

NRC and Coala Pay reduced end-to-end transfer times from **2–3 weeks** to **2 days**, achieving **same-day** settle-ment for local partners and near-instant off-ramping (avg. **38 minutes**) for local responders.

### Proven and scaling:

Over **USD 500k** disbursed to **30 local partners in 2025**, with plans to expand to **hundreds of local response groups in 2026**.


coalapay


NRC NORWEGIAN REFUGEE COUNCIL

"Stablecoins are not a revolution against finance — they're an evolution of it.

They can make humanitarian funds move faster, safer, and farther — if adopted responsibly."

# Thank you!

## Nigel Pont

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