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Mitigating Financial Sector Derisking through Innovation:

The Role of Digital Technologies in Humanitarian Fund Transfers

Dr Erica Moret , October 2023

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ACRONYMS

AML	Anti-money laundering
CBDC	Central bank digital currencies
CBR	Correspondent banking relations
CNAS	Center for a New American Security
CTF	Counter terrorism financing
DD	Due diligence
DeFi	Decentralised finance
DG-ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
DLT	Distributed ledger technologies
F4ID	Fintech for International Development
FATF	Financial Action Task Force
FDFA	Swiss Federal Department of Foreign Affairs
FSB	Financial Stability Board
IDP	Internally displaced people
IMF	International Monetary Fund
KYC	Know your customer
MGI	MoneyGram International
MTO	Money transfer operators
MVTS	money and value transfer systems
NFT	Non-fungible token
NGOs	Non governmental organisations
NRC	Norwegian Refugee Council
P2P	Peer-to-peer
SAA	Stellar Aid Assist
UN	United Nations
UNHCR	UN High Commissioner for Refugees
UNSC	United Nations Security Council
US	United States
USDC	United States dollar coin
USDT	United States dollar tether
VASP	Virtual asset service provider
WFP	World Food Programme

EXECUTIVE SUMMARY

The Norwegian Refugee Council (NRC) and the Center for a New American Security (CNAS) convened a joint workshop entitled Fintech Solutions to Derisking on 1 June 2023. It was chaired by Dr Erica Moret of the Geneva Graduate Institute and Alex Zerden of CNAS, and co-funded by the EU's Directorate General for European Civil Protection and Humanitarian Aid Operations and the Swiss Federal Department of Foreign Affairs.

The workshop explored the role digital technologies play in remitting humanitarian funds domestically and internationally in poorly-banked jurisdictions affected by the withdrawal of banks and other financial institutions as a result of financial sector derisking. It was the third of four held by NRC as part of the 2021-2023 Dialogue Series on Solutions to Bank Derisking and was also associated with CNAS's Task Force on Fintech, Crypto, and National Security.

This policy briefing is based on a review of the as yet limited academic and policy literature on the topic as well as anonymised feedback from more than 40 expert practitioners from governments, international organisations (including the United Nations [UN]), non-governmental organisations (NGOs), banks and financial technology (fintech) platforms who took part in the workshop. It includes a range of case studies and concludes with a set of cross-sectoral recommendations. In summary the paper finds:

- The worsening global phenomenon of financial sector derisking[1] has led to a growing number of countries becoming partially or fully unbanked. In humanitarian settings, this seriously undermines organisations' work and pushes them to depend on channels that tend to be less regulated, such as money and value transfer systems (MVTSs), unsustainable and high-risk cross-border bulk cash transfer programmes or currency exchange mechanisms.[2]

- Financial access and payment challenges represent one of the main constraints on the provision of humanitarian assistance to countries deemed to be of high compliance risk.[3] They also impede vital economic remittance lifelines and trade in essential goods.[4]

- Derisking has been the focus of several recent landmark policy initiatives, notably the United States (US) government's 2023 derisking strategy and the creation of humanitarian exemptions across UN and some autonomous sanctions regimes. These welcome moves will require additional policy and private sector engagement in parallel to stem the rapid decline in humanitarian banking channels to many parts of the world, which could include greater use of financial technologies.

- With appropriate safeguards in place, digital technologies – including blockchain platforms and digital currencies – have the potential to streamline and facilitate humanitarian fund transfers and foster financial inclusion in poorly banked jurisdictions. Benefits include speed, reduced costs, accessibility, transparency, accountability, security and the mitigation of risks associated with fraud, money laundering and the financing of terrorism.

- These benefits could help to reduce some of the drivers of derisking associated with regulatory and reputational risks and the bureaucratic burden and costs associated with know your customer (KYC) and other due diligence (DD) checks. Some digital technology platforms also have the potential to reduce demand for physical cash in poorly banked jurisdictions, especially when a robust digital payments ecosystem is present.

- A limited number of international organisations and international NGOs already work with fintech companies to harness innovative platforms for the domestic transfer of humanitarian payments, especially at the "last mile" stage of reaching end-recipients, but uptake is low, as is the sector's awareness of the potential use of the fintech. Other solutions are being piloted but have not been rigorously reviewed for effectiveness and user satisfaction.

- Challenges to greater uptake of digital payment solutions by humanitarians include infrastructure limitations in end-user countries, privacy concerns, and access constraints that marginalised groups such as women and girls face, though several platforms have developed innovative ways to work around some of these issues. Concerns about cryptocurrency misuse, including in relation to the financing of terrorism and money laundering, have also increased reluctance to consider their use in a carefully controlled and legally compliant environment.

- The use of tech solutions for cross-border humanitarian fund transfers is also in its infancy. Some success has been observed in the use of Circle's USD Coin (USDC) – a regulated, fully-reserved stablecoin – in conjunction with other tech partners, UN bodies and NGOs, which allows funds to be transferred across borders, sometimes without the need for correspondent banks.

- These types of transfer could play a transformative role in allowing fund transfers to continue to countries where the banking sector may be inaccessible or subject to insurmountable constraints as a result of derisking, so long as local organisations/ platforms are present that provide access to liquidity or allow funds to be spent through a digital ecosystem. It is unclear, however, whether bank-free transactions will be an option in the foreseeable future.

- Further research in this area and more detailed multi-stakeholder discussions are needed. The subject represents a major gap in the academic and policy literature, where most research focuses on the technology itself rather than how it applies to humanitarian fund transfers or mitigating the impacts of financial sector derisking.

- Capacity building is required across sectors to help stakeholders better understand the options available. Public support is also needed to allow for pilots, regulatory sandboxes and the adaption of policy, legislation and guidance where gaps remain. Outreach should focus on ensuring that fintech firms do not cede to the same derisking pressures as banks.

- Banks are likely to continue to play a central role in the remitting countries as the main avenue for purchasing digital assets, even in cases where fintech is used in humanitarian payment channels. As such, engagement should continue with the formal banking sector on humanitarian payment channels, including at the "middle mile" stage of cross-border transfers, which typically depend on correspondent banks.

1 INTRODUCTION

Financial sector derisking, and particularly the rapid decline in correspondent banking relations (CBRs), has contributed to various parts of the world becoming partially or fully unbanked. The situation has deteriorated to such an extent that payment challenges have become one of the main barriers to principled humanitarian action, necessitating urgent action. The mitigation of derisking has been the focus of numerous policy initiatives over the past decade, but with only limited success, and several international organisations have described the phenomenon as a global crisis.[5]

Derisking seriously complicates humanitarians' work and may force them to use alternative channels or ad-hoc emergency measures such as money and value transfer systems (MVTSs), unsustainable and high-risk cross-border bulk cash transfer programmes or currency exchange mechanisms. Derisking also impedes wider economic activities and the ability of migrants to send remittances home to poorly banked jurisdictions.

The problem of derisking has been the focus of recent and unprecedented policy changes, such as adoption of various humanitarian carveouts since December 2022, including through UN Security Council (UNSC) resolution 2664 and similar exemptions across some autonomous sanctions regimes. The US government's 2023 derisking strategy[6] and associated outreach to the financial and private sectors are also important steps forward. They could be replicated by, and harmonised across other governments and regional organisations.

Despite these landmark developments, derisking looks likely to continue to pose problems for humanitarian and related activities in the foreseeable future. Given this complex global compliance landscape, the role financial technologies (fintech) could play in supporting cross-border humanitarian fund transfers in places affected by derisking represents an as-yet poorly understood area – something this paper seeks to address.

Studies suggest fintech has the potential to facilitate and streamline humanitarian fund transfers and foster financial inclusion in poorly banked jurisdictions,[7] including in settings where the decline in banking channels as a result of derisking poses severe financial access challenges.[8] A limited number of international organisations and NGOs have sought to work with fintech companies to harness innovative digital platforms for the transfer of domestic and, in a few cases, international humanitarian payments.[9]

Uptake in the sector is not yet widespread, however, and awareness of the potential applications of "tech for good" in support of humanitarian fund transfers is still patchy.[10] Greater consideration of the role of new technologies for remitting humanitarian funds would be beneficial, particularly in relation to cross-border payments.[11]

In general terms, and under certain carefully controlled conditions, digital innovations have the potential to offer humanitarians accessible, efficient, secure and cost-effective fund transfers that are faster and more transparent than some alternative channels.[12] Emerging technologies such as mobile money, digital wallets and blockchain platforms – including those described in the annex to this paper[13] – could also help to empower crisis-affected communities with greater financial autonomy and resilience.[14]

Fintech payment platforms could help to streamline fund disbursal, tracking and monitoring processes, overcoming administrative inefficiencies. They could be harnessed to provide financial access to hard-to-reach communities,[15] allowing aid organisations to make transfers to vulnerable people and enable financial transactions in remote areas, or those plagued by security challenges.[16] Tech solutions that minimise the need for third parties could also help to minimise delays and reduce costs, corruption and money laundering and financing of terrorism risks. Real-time monitoring and data

analytics could also facilitate evidence-based responses and targeted interventions.[17]

Such transfers often take place in partnership with financial institutions, but they can also serve as an alternative to banking transfers when appropriate structures are in place. This is important in settings where banks and other payment platforms are scarce: at the middle mile, where international financial transfers via correspondent banking channels may be obstructed; and at the last mile, where access to liquidity and cash or physical access to hard-to-reach areas may pose payment challenges. An example of the former is the use of "digital bearer assets", such as the USD Coin (USDC) issued by the fintech company Circle.[18] Platforms that use USDC can transfer fungible value into jurisdictions where liquidity is readily available, either in local currencies or US dollars.[19] [20]

Limited access to the necessary digital infrastructure and financial services in some humanitarian spaces poses a challenge to wider uptake,[21] as does concern about data privacy, security,[22] the need for robust regulatory frameworks to ensure compliance and protect vulnerable populations,[23] and the use of cryptocurrencies by designated terrorist organisations and criminal networks.[24] There is also a lack of awareness about, and exposure to such options across NGOs, donors, regulators and banks.[25]

This is reflected in the academic and policy literature, where there is little evidence or supporting research about the impacts of digital technologies on humanitarian fund transfers[26] – particularly cross-border – or how they might support fund transfers despite the pressures associated with derisking.[27] The existing research focuses more on the technological aspects of innovations developed to date.[28]

Humanitarian organisations also face broader compliance risks as well as challenges associated with the recommendations of the Financial Action Task Force (FATF), the intergovernmental organisation that sets international standards and promotes measures to combat money laundering, the financing of terrorism and other threats to the integrity of the global financial system. FATF's recommendation 8 in particular calls for a risk-based approach towards NGOs,[29] which has contributed to a chilling effect and over-compliance across sectors.

These considerations cumulatively appear to explain the humanitarian sector's relatively low uptake of fintech solutions, which highlights the need for concerted efforts to address the obstacles and promote the effective integration of digital innovations into humanitarian financing mechanisms with appropriate safeguards.

1.1 WORKSHOP BACKGROUND

The workshop sought to achieve the following objectives:

- **To raise awareness** on the role of tech/innovation in transferring humanitarian funds in settings affected by derisking
- **To highlight challenges** and encourage regulatory change and clearer guidance to better support the use of tech in humanitarian activities
- **To provide a confidential space** in which organisations could share details of the constraints they face in terms of derisking and related factors
- **To generate policy recommendations** that could help to alleviate financial sector derisking and allow for greater uptake of "tech for good" in poorly banked or fully unbanked regions
- **To strengthen the community** of interested parties working on these topics and encourage new collaborations

The workshop included a series of case studies that outlined the use of digital innovations in humanitarian fund transfers (see annex). Its participants were drawn from government regulators and donors, NGOs, international organisations, fintech companies, academia and thinktanks.

2 FINANCIAL SECTOR DERISKING: A MOUNTING CHALLENGE TO HUMANITARIAN FUND TRANSFERS

Financial sector derisking poses a significant barrier to humanitarian fund transfers,[30] including through delays, blocked payments, costs and difficulties opening new bank accounts. It also hinders financial inclusion and creates an obstacle to other types of payment.

Derisking refers to the phenomenon in which banks and other financial institutions, concerned about compliance and regulatory risks and costs, withdraw or limit their services to high-risk regions or sectors.[31] This approach poses major challenges for humanitarian organisations in accessing and transferring funds, hindering their ability to provide timely assistance to those in need. According to the representative of one major humanitarian organisation, "payment challenges now represent the most significant barrier to principled humanitarian action in the world today".[32]

The rapid decline in CBRs over the past decade is of serious concern, described as a global crisis by the G20 and the World Bank,[33] the International Monetary Fund (IMF),[34] the Financial Stability Board (FSB)[35] and FATF.[36] A growing number of countries have become partially or fully unbanked as result,[37] leaving them in total or near-total financial exclusion.[38] Derisking can affect all areas of economic activity,[39] including trade, in relation to supply chains of essential goods,[40] other financial services, such as investment and insurance, and household remittances.[41] It can also reduce vulnerable populations' resilience, for example by driving up inflation.[42]

With limited access to banking services in a range of countries, humanitarian organisations face difficulties in disbursing funds to affected populations, paying local staff and facilitating necessary transactions. Financial sector derisking particularly affects NGOs' cross-border fund transfers, given its accompanying complex compliance requirements, extensive due diligence (DD) procedures and steep transaction costs for transfers to high-risk regions.

These obstacles cause delays, increase administrative burdens, reduce transparency and ultimately impede the timely delivery of aid and vital trade. They also push a growing number of humanitarian organisations and other civil society groups to depend on MVTSs such as *hawala,* a legitimate but often less regulated tool of last resort.[43] The situation has also led to dependence on other ad-hoc fund transfer mechanisms, including bulk cross-border cash shipments by the UN and dependence on currency/trade exchanges.[44]

More than a decade of studies and multi-stakeholder dialogues on derisking have called for the establishment of guidelines, frameworks and partnerships that ensure compliance with regulations while facilitating the necessary flow of humanitarian funds.[45] Collaboration between the public and private sectors in particular has been deemed essential in finding innovative solutions, leveraging fintech advances and maintaining the integrity of financial systems. International organisations have also highlighted the need for stakeholders including financial institutions, regulatory bodies and humanitarians to continue to engage in dialogue and develop risk mitigation strategies to help counter a worsening global problem.

3 FINTECH ADVANTAGES FOR HUMANITARIAN FUND TRANSFERS

Financial technologies provide a number of advantages in transferring humanitarian funds in poorly banked jurisdictions. These include enhanced risk assessments and compliance, the use of alternative data sources, improved anti-money laundering (AML) and know your customer (KYC) processes, streamlined peer-to-peer (P2P) transactions and easier cross-border remittances. Fintech has already been harnessed by humanitarians across several areas, some of which are detailed below:

Cash-based transfer programmes:

International organisations and NGOs have used digital payment platforms and mobile money systems to provide cash-based assistance directly to beneficiaries. The World Food Programme (WFP)'s Building Blocks project in Jordan has enabled Syrian refugees to purchase essential items using a blockchain-based mobile wallet,[46] and the UN High Commissioner for Refugees (UNHCR) has used mobile money transfers, improving refugees' financial access and control.[47] The UN Children's Fund (UNICEF) has also formed a partnership with the Ethereum Foundation to create a fund that receives and disburses donations in cryptocurrencies, reportedly enabling faster and more transparent transactions.[48]

Biometric payments:

Biometric technologies have been used to enhance security and streamline aid distribution. WFP's Building Blocks initiative in Pakistan has used biometric authentication to ensure efficient and transparent cash transfers to refugees, reducing the risk of fraud and ensuring aid reaches the intended recipients. UNHCR has also adopted biometric payments to enhance accountability and distribute assistance more accurately.

Digital identity and KYC:

International organisations have employed fintech solutions to establish digital identity systems and streamline beneficiary verification processes. This has reportedly enabled the efficient and accurate identification of recipients, ensuring aid is targeted to the right individuals, as in the case of UNHCR.

In general terms, the potential advantages that fintech offers in humanitarian fund transfers could help to mitigate some of the drivers of derisking, including cost, compliance burden and regulatory, sanctions and reputational risks, in some of the following areas:

Efficiency and speed:

Fintech can enable faster and more streamlined financial transactions, reducing administrative burdens and transaction costs. Digital payment platforms facilitate real-time transfers, allowing for the rapid disbursement of funds to affected populations.[49]

Transparency and accountability:

Blockchain technology, for example, ensures an immutable and auditable record of financial transactions, minimising the risk of fraud and corruption, according to its advocates. Each transaction can be verified, time-stamped and geotagged. This can help to support KYC checks and address risk-averse approaches.

Flexibility and adaptability:
Through digital platforms, funding can be allocated quickly to address evolving needs during crises and can be designed on an ad-hoc basis according to varying local situations. Various digital payment platforms work across different mobile phone networks, which is typically distinct to mobile money.

Security and reduction of fraud:
The use of blockchain and other distributed ledger technologies (DLTs) allows information capture which is fixed and can be independently updated,[50] including through third-party validation, tamper evidence and resistance and common recordkeeping.[51]

Cost effectiveness:
According to its supporters, fintech can significantly reduce the transaction costs associated with other payment channels. This is particularly important in countries affected by derisking, which often incur transfer fees that are higher than the global average. It can also help hedge against local currency instability. Innovative platforms, such as those that use USDC, can also reduce costs for regulated remittance companies, such as money transfer operators (MTOs) including Western Union and MoneyGram, by reducing the need to pre-position funds in order to settle transactions or pay for wire fees to settle accounts. Digital payment systems can also potentially allow humanitarian organisations to allocate a higher percentage of funds directly to beneficiaries, maximising the impact of limited resources.

Scale and sustainability:
Innovative fintech options of this kind can be scaled up and maintained over time with the right infrastructure in place.

Financial inclusivity:
Fintech can promote financial inclusion by extending access to financial services in under-served areas. Mobile money platforms and digital wallets enable people, including those in remote or unbanked regions, to receive and manage funds securely.

4 CHALLENGES ASSOCIATED WITH FINTECH FOR HUMANITARIAN FUND TRANSFERS

A number of issues have impeded more widespread uptake of innovative payment platforms, including for last-mile payments:

Limited digital infrastructure and smartphone adoption:
Insufficient phone network coverage, unreliable internet connectivity and electricity, the absence of bank branches or ATMs and the lack of necessary devices can restrict widespread usage. That said, various platforms have developed solutions to some of these challenges, including by allowing for offline use.

Data security and privacy concerns:
Fintech platforms typically involve the collection, storage and transmission of sensitive financial and personal data.[52] Ensuring robust security protocols, encryption standards and data protection measures is essential to mitigate the risks associated with data breaches and unauthorised access. Given that this is one of the main areas of concern among humanitarians, building trust among users and stakeholders is vital to encourage adoption.

Lack of regulatory frameworks:
Varying regulations across countries and the lack of harmonisation can impede effectiveness. Not all countries, for example, have established clear regulations on the use of cryptocurrencies and DLTs. Guidelines that balance consumer protection, financial integrity and innovation are necessary to ensure compliance and foster the growth of fintech solutions in the humanitarian sector.

Exclusion of vulnerable populations:
Limited digital literacy, language barriers and pre-existing financial exclusion can prevent certain groups, such as elderly people, women, refugees and people with disabilities, from using fintech solutions.[53] NGOs often raise gender as a concern, given that women may have less access to mobile phones and other technologies than their male counterparts. Efforts should be made to bridge the digital divide, provide user-friendly interfaces and offer support to ensure inclusivity and equal access to innovative financial services. Various platforms have sought to address these considerations.

Banking infrastructure/liquidity challenges:
Most fintech platforms need access to traditional financial systems, including banks, which means they may not be immune to some of the broader derisking pressures, such as the loss of CBRs. Others, such USDC or Tether's USD Tether (USDT),[54] are able to remit funds across borders without always requiring access to correspondent banks.

Cultural preferences:
Some populations prefer alternative payment systems, such as *hawala* or traditional bank transfers, which can lead to reluctance to make use of innovative platforms.

Consultations suggest that addressing these challenges and risks requires collaborative efforts and regular, open dialogue between humanitarian organisations, financial institutions, governments and regulatory bodies. They also suggest that it is vital to invest in digital infrastructure to improve connectivity, establish stringent cybersecurity measures, develop appropriate regulatory frameworks and implement targeted strategies to ensure inclusivity, security and ethical use of fintech in remitting humanitarian funds.

5 USE OF FINTECH FOR HUMANITARIAN PAYMENTS TO MITIGATE DERISKING

Financial technologies have been shown to play a useful role in helping to facilitate, streamline and reduce the cost of humanitarian fund transfers at the last mile, but those that allow transfers across borders – the middle mile – in a trackable and legally complaint way, are arguably more important in terms derisking, because they have potential to provide an alternative to formal transfers via correspondent banks. As such, they could play a game-changing role in compliant fund transfers to and from poorly banked and unbanked countries. Of the few cases in which NGOs and international organisations have made use of fintech solutions, however, only a small portion have involved international payments (see annex).

A series of case studies presented at the workshop highlight the diverse approaches across several complex humanitarian settings. More research, pilots, use cases and public body support is required to further explore the topic. Examples from Afghanistan, Kenya, Nigeria, Ukraine and Yemen suggest fintech platforms have had a positive impact in improving financial access, reducing hunger and increasing satisfaction rates among beneficiaries and merchants.

Workshop participants also said effective collaboration between humanitarian, banking and tech sectors was vital, requiring trust and the establishment of a common language that allows stakeholders to communicate effectively despite the technical nature of the topic. The importance of regular dialogue was also emphasised as important to allow stakeholders to identify and address existing and emerging challenges, as was the need to demystify aid and build confidence in banks through outreach and understanding of banking sector requirements.

6 CONCLUSION

The incorporation of fintech and innovative payment platforms in humanitarian fund transfers shows promise in improving efficiency, transparency and impact in poorly banked humanitarian settings. The use of blockchain platforms and digital currencies also shows potential in allowing funds to be transferred through channels that reduce reliance on the traditional banking sector, which could be useful in situations where efforts have failed to persuade financial institutions not to withdraw their operations.

Innovative platforms could also be useful in helping humanitarians and other stakeholders to make payments in poorly banked countries, where access to physical cash and bank branches represent a constraint, or where security concerns present access barriers.

A number of challenges persist, however, that should be addressed through further dialogue, research, pilots and collaboration. These should relate primarily to infrastructure limitations, patchy regulatory frameworks and data security risks. Fintech platforms also risk being affected by the same derisking pressures as banks and other private sector stakeholders, particularly in terms of stringent and extensive KYC and DD processes. Humanitarian exemptions, guidance, dialogue and outreach will be important in preventing this from happening.

A lack of exposure to, or awareness about fintech options among most NGOs and international organisations also hinders greater uptake. Of particular importance is the need to ascertain the potential for a greater role for digital payment platforms in remitting funds across borders in situations where options are limited by risk aversion among correspondent banks.

By fostering partnerships, supporting pilots and regulatory sandboxes and assuming shared responsibility, stakeholders will be better equipped to collectively identify and implement solutions that engender more robust responses and better support for marginalised populations. Further R&D, awareness raising and trust and capacity building across sectors would also help to forge a better understanding of how both centralised and decentralised stablecoins could play a greater role in the legal and sanctions-compliant cross-border transfer of humanitarian funds in settings where formal banking options are scarce or unavailable.

To further this work, Polisync has launched the Centre for International Engagement, a new forum for innovation in humanitarian payments. It brings together international NGOs, UN agencies, fintech platforms and other stakeholders that wish to continue to build on the discussions established in this series. For more information, visit Polisync.

7 RECOMMENDATIONS

Workshop participants generated the following recommendations:

For humanitarian organisations:

- Engage in constructive dialogue and multi-partner collaboration on the potential role of fintech in humanitarian fund transfers to countries affected by derisking, particularly cross-border transfers.
- Raise awareness among NGOs of the potential role of fintech in humanitarian fund transfers, and build their capacity to exploit it, including through pilots.
- Explore digital alternatives to cash programming, such as fungible e-vouchers.[55]
- Seek to understand the treasury and finance requirements, and data privacy and protection considerations, of NGOs and international organisations with regard to potential digital technology solutions.
- Make use of, and help to foster digital ecosystems that provide compliance reassurance to regulators, banks and programming teams.

For regulators/governments:

- Foster and support conversations and collaboration between humanitarian organisations, financial institutions and tech providers through regulatory sandboxes,[56] pilots, funding and support of forums for exchange, particularly on cross-border payments.
- Assess the readiness of ecosystems for the deployment of blockchain or digital assets in poorly banked jurisdictions with marked humanitarian needs.
- Assist tech companies in addressing data privacy and protection concerns.

For the banking sector:

- Enhance banking knowledge and cross-border flows in relation to the use of fintech for humanitarian fund transfers involving smaller and local NGOs.
- Build and link existing trusted networks of local vendors and functioning payment channels that use digital technologies to be made available to humanitarian organisations and other stakeholders involved in payments relating to personal remittances and essential supply chains.
- Consider covering blockchain transaction and cash-out fees for recipients.
- Address concerns about derisking and compliance screening for NGOs through dialogue and guidance.

For the fintech sector:

- Engage in awareness-raising campaigns and provide clarity on how fintech can be helpful, especially at the middle mile and as an alternative to CBRs.
- Consider the role that fintech could play in humanitarian supply chains and payments for traders of essential goods.[57]
- Engage in constructive dialogue and collaboration with humanitarian organisations, banks and other stakeholders, including through conferences, awareness-raising campaigns and capacity building.
- Provide platforms and solutions that are adaptable to local settings.
- Address last-mile challenges in remote areas without smartphones or internet access.
- Provide reassurance, including through evidence-based and independent use cases, on privacy, security and concerns relating to hindered access for more marginalised groups, including women, on last-mile payments.

A ANNEX

A selection of case studies on the harnessing of fintech for humanitarian fund transfers in jurisdictions affected by derisking, in alphabetical order:

1. CARE, OXFAM, MERCY CORPS PARTNERSHIP

Countries covered:
- **CARE:** Kenya and Ecuador;
- **Oxfam:** Vanuatu and Zimbabwe;
- **Mercy Corps:** Uganda

Cross-border or domestic use: Domestic

Description of the product[58]

Oxfam used crypto-enabled e-voucher products from Sempo in all locations, Mercy Corps used them in Uganda, and CARE used the Umoja product in Ecuador. These are custodial wallets linked to a tap-to-pay card for recipients and a point-of-sale smartphone app for vendors. Remittance of funds occurs via disbursements from a master wallet owned by the NGO, which holds the stablecoin, or tokenised currency, balance intended for distribution to recipients. Recipients use wallet balances to purchase goods from a vendor using a tap-to-pay card to transfer funds from the individual to the vendor's account. The vendor enters purchase items and confirms the purchase to complete the transfer. The NGO then reimburses vendors on a fixed schedule based on the balance in their account.

The NGO has access to a dashboard that provides a live transaction feed and visibility on areas such as the master wallet balance, vendor and recipient wallet balances, demographic data and aggregated analytics on the categories of items purchased and the time and location of purchases. Non-custodial crypto exchange (digital) wallets linked to crypto exchange accounts were used by CARE in Kenya and Mercy Corps in Uganda. The Trust wallet, which is linked to a Binance exchange account, was used in both locations. Funds were remitted from an NGO-owned Binance exchange wallet to recipients' digital wallets. Recipients then purchased items from a network of vendors who also had digital wallets linked to a Binance exchange account. Vendors then had the choice to hold their funds in the exchange account in stablecoin, trade or purchase crypto, or withdraw funds into their local bank accounts.

Project details

CARE, Oxfam, Mercy Corps jointly implement the From Promise to Practice project to analyse design trends, enablers and challenges in blockchain-enabled cash and voucher delivery in humanitarian programmes.

Type of tech used

- **Fintechs:** Binance, Umoja Labs (CARE); Sempo (Oxfam); Binance, Sempo (Mercy Corps)
- **Blockchains:** Celo, Binance
- **Digital wallets:** Custodial (e-voucher) and non-custodial (decentralised)
- **Digital currencies:** USD, tokenised currency (Vanuatu Vatu Voucher tokens)
- **Devices:** Smartphones, NFC cards

Key benefits

Common benefits across all pilot case studies included a significant increase in the speed of transfers; reduced cost per transfer; increased digital literacy; improved transparency and monitoring; and, in the case of vouchers, ease of use compared with previous systems. Benefits specific to Zimbabwe included an increase in vendor income as a result of using stablecoin rather than local currency for transactions. Mercy Corps found that recipients in Uganda were learning about crypto and continuing to invest in it.

Key challenges

All pilot projects faced internal systems and procedures not adapted to the use of crypto/blockchain and a burden on staff resulting from managing field-level user support. In Vanuatu, Oxfam encountered an extensive, negotiated compliance process. Notable community scepticism was documented in Kenya and Uganda.

2. FINTECH FOR INTERNATIONAL DEVELOPMENT (F4ID): LOTUS20 (L20)

Country covered: Afghanistan

Cross-border or domestic use: Domestic

Description of product

Save the Children, Barclays Bank and Standard Chartered Bank set up F4ID to create digital technology for NGOs working in the most challenging environments, including those affected by financial sector derisking. The vision was to bring humanitarian, banking and technology sectors together under one roof to improve NGO performance, transparency and compliance control; to transform programming outcomes and to rebuild confidence with banks facilitating transfers into higher risk jurisdictions.

Product details

A key aspect of this platform is that the data required to build a robust audit trail for banks and regulators can be the same as required to improve programming outcomes. Building a digital platform to capture incontrovertible data – what was supplied where, to whom and for how much – would document activity in a way that aligns field operations with humanitarian exemptions, including those issued by the UN and US. It would also provide programming teams with output data, enabling them to monitor outcomes such as average nutrition intake for households.

F4ID decided the only way to do this was to build a digital supply and payment platform called L20 that provides assistance through stored digital value redeemed by beneficiaries for goods and services of their choosing. It tracks programming output through local vendors' point-of-sale systems. Avoiding cash distribution was seen as key to reassure banks, regulators, FATF and donors over risks, real or perceived, of money laundering and financing of terrorism.

Benefits

Accessible to local vendors via download from Google Play Store and operates over standard Android devices; as near-fungible as cash as possible; allows each transaction to be biometrically verified, time-stamped and geo-tagged; operates in a completely anonymised environment to protect beneficiaries' identities; enables DD to be conducted on all vendors registering to trade through L20, facilitating pre-approval by bank compliance teams for high-risk jurisdictions; makes payments to vendors via regulated channels.

Key L20 pilot results, according to F4ID

75 per cent of households preferred L20 to cash, vendors serving L20 households received prompt payment for food supplied; every transaction was biometrically verified, providing evidence of humanitarian assistance in accordance with US exemptions, which in turn gave comfort to banks. In a separate pilot in north-east Nigeria, supply data showing humanitarian activity made banks comfortable paying local vendors operating in a high-risk environment for food and non-food items. L20 also functioned without issue after a severe reduction in local liquidity that would have made cash programming impossible.

3. GIVEDIRECTLY

Country covered: Yemen
Cross-border or domestic use: Domestic

Description of product[59]

Programmes and technology set up to allow recipients to choose whether they want their transfer to be deposited directly into a recipient bank account or picked up in cash from Al Kuraimi Islamic Microfinance Bank.

Project details

Delivery of cash to internally displaced people (IDPs) and vulnerable host community households in Aden to ensure they are able to meet their household's food and other basic needs each month. The project provided four payments of around $770 in unconditional cash transfers to 2,000 households, amounting to between 12,000 and 14,000 individuals. The amount was harmonised with other food security programmes to minimise the risk of community tensions.

Type of tech used

- Taroworks for data collection, including relevant bank information.
- Salesforce and in-house Python automations to prepare payment lists and reconcile payment results.
- Al Kuraimi for a payment portal.
- Comply Advantage for sanctions screening.

Key benefits

The project fills an important gap. Cash in hand is the norm for cash programmes in Yemen and digital transfers are largely non-existent. Its use does not introduce a higher fraud risk, and it offers benefits in terms of recipient preference and safety. Recipients have more flexibility in terms of when they claim their payment, and more safety by reducing the amount of cash they carry. Recipients also are also able to keep their aid banked if they desire, which encourages financial inclusion by helping recipients to open bank accounts if they want.

Key challenges

The payment process is highly manual, with higher ongoing costs to send payments. Many unbanked recipients also prefer cash in hand because they do not trust banks, which have failed to implement capital controls, posing risks to recipients who bank their payments.

4. HESABPAY

Country covered: Afghanistan
Cross-border or domestic use: Both

Description of product

HesabPay USDC wallets are issued to individuals who have undergone KYC checks and can receive USDC directly from an organisation's wallet outside the country. Recipients can either convert their USDC into the local currency, the Afghani, within the wallet and transact digitally inside Afghanistan, or cash out in USD or Afghani.

5. STELLAR AID ASSIST, UNHCR, CIRCLE AND MONEYGRAM INTERNATIONAL

Country covered: Ukraine
Cross-border or domestic use: Both

USDC is sent directly from UNHCR's Circle Account, at the agency's direction, via Stellar Aid Assist (SAA) to digital wallets held by IDPs in Ukraine. Should they leave Ukraine, recipients can still access and use the funds in other jurisdictions through their digital wallet and MoneyGram International (MGI)'s global agent network.

Description of product

UNHCR, with technical support from the Stellar Development Foundation, launched SAA in December 2022 to disburse humanitarian aid in Ukraine. SAA uses Circle and its stablecoin USDC, cash-out services offered by MGI and the digital wallet Vibrant. UNHCR enrols eligible IDPs at participating registration locations, and then sends USDC directly to a recipient's Vibrant wallet.

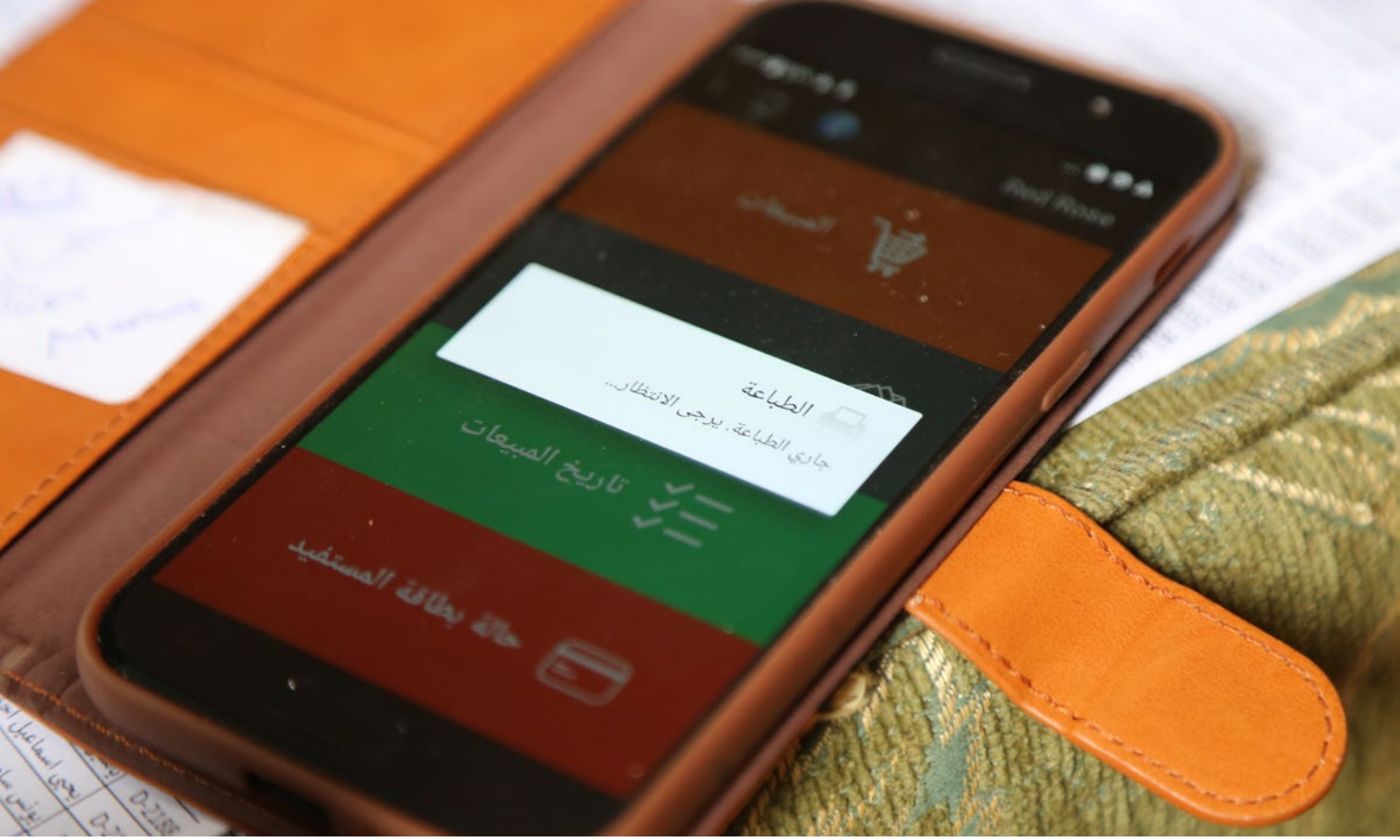
The funds are sent via the Stellar blockchain network, aided by SAA, a disbursement system powered by the Stellar network to help governments and humanitarian organisations deliver urgently-needed cash assistance to vulnerable populations quickly and transparently. Beneficiaries are able to secure and save USDC in their Vibrant wallets, accessible on a smartphone, until they choose to cash out at any MGI location.

Project details[60]

UNHCR piloted SAA in the cities of Kyiv, Lviv and Vinnytsia. The funds are intended to help IDPs cover basic needs such as rent, food, medical care and heating. The programme is expected to expand to reach more people affected by the war in Ukraine, as well as Ukrainian refugees, in 2023.

Type of tech used

USDC is a fully-reserved stablecoin, backed entirely by cash and short-duration US Treasury bills and redeemable on a 1:1 basis for US dollars. Stablecoins are digital currencies designed to track the price of an external asset. SAA was built on the Stellar network, an open, public blockchain. SAA uses a product called the Stellar Disbursements Platform, a bulk payments processor for sending digital assets to thousands of Stellar wallets at a time.



Key benefits

The use of USDC provides a reliable store of value and gives individuals the ability to exchange for local currency anywhere in the world through the MGI network or other available off-ramps. Recipients have the option to cash out their USDC in local currency, US dollars or euros at more than 4,500 MGI locations in Ukraine and more than 380,000 worldwide. Given that 37 per cent of Ukrainians do not have a bank account, the programme also offers options to people who previously had to rely on physical cash.

Forcibly displaced people are known to prefer cash over in-kind assistance because it gives them the freedom to choose how to address their own needs. There are 1.4 billion unbanked people worldwide[61] and more than 103 million forcibly displaced,[62] so this flow of funds built under SAA presents a vital new option for people who were previously limited by the accessibility and portability challenges of traditional payment methods such as cash and local currency bank transfers.

Recipients do not have to have a bank account, debit card or credit card, and the platform provides them with a more secure place to hold and transport funds until they need cash.

Recipients can manage their funds entirely on their phone, wherever they go and are not bound to a specific geographic location.

According to those running the project, the use of the Stellar public blockchain and USDC provides greater transparency for aid organisations and their donors through the traceability and auditability of funds and, more broadly, through being able to better protect against traditional AML/ counter terrorism financing (CTF) risks. Organisations also benefit from real-time transaction monitoring, significantly lower transaction fees and shorter delivery timelines. They can also confirm that USDC funds are received and cashed out.

Key challenges: AML/CFT and KYC onboarding process to access a digital wallet and cash-out funds at local MGI agents can be time and resource intensive. The local regulatory framework for digital assets in Ukraine is weak, and there are challenges associated with the hosting of disbursement.

GLOSSARY OF TERMS INCLUDING OTHER USEFUL TERMS FROM THE FINTECH SECTOR[63]

Altcoin:
Any type of cryptocurrency other than Bitcoin.

BTC:
The abbreviation used for the Bitcoin cryptocurrency.

Blockchain:
A digital and immutable public ledger that is duplicated and distributed across an entire network of computer systems to facilitate and record the process of virtual asset transactions, often cryptocurrency.

Central bank digital currencies (CBDCs):
National currencies represented in digital form. CBDCs, like paper money, are fiat currencies or sovereign money, meaning they represent a direct liability of the central bank. CBDCs can, but do not need to be based on blockchain technology.[64]

Cryptocurrency:
Typically decentralised digital money designed to be used over the internet through blockchain technology. Cryptocurrency is not controlled by any government or other central authority, such as a bank, and is managed through peer-to-peer networks of computers running open-source software. One specific application of blockchain technology. A cryptocurrency represents a currency created and stored on a blockchain. Cryptocurrencies pegged to other asset types, such as the US dollar, are known as stablecoins.[65]

Cryptocurrency wallet:
A hardware device or downloadable software programme that stores the public and private keys for facilitating cryptocurrency transactions. Public keys allow other users to send transactions to the digital address associated with that wallet, whereas private keys enable the spending of cryptocurrency associated with the digital address of the wallet.

Decentralised finance (DeFi):
"An umbrella term used to describe decentralized software protocols that can be used to conduct economic activities on blockchain networks."[66] DeFi is distinct from cryptocurrency or crypto assets in that it represents the applications built on top of a blockchain network, while cryptocurrency or crypto assets are the digital representations of value exchanged during the economic transactions facilitated by the applications. DeFi protocols are comprised of numerous "smart contracts", which are self-executing codes that work in a conditional way and do not require a third-party, such as a bank, to mediate between the transacting parties.

Digital assets:
Digital representations of value enabled by blockchain technologies, including cryptocurrencies, as well as central bank digital currencies (CBDCs) that may not be based blockchain technologies. The US government's Executive Order on the Responsible Development of Digital Assets defines them as all central bank digital currencies "regardless of the technology used, and to other representations of value, financial assets and instruments, or claims that are used to make payments or investments, or to transmit or exchange funds or the equivalent thereof, that are issued or represented in digital form through the use of distributed ledger technology".[67]

ERC20 token:
A cryptocurrency standard used for creating and issuing smart contracts on the Ethereum blockchain. Smart contracts are computer programmes stored on a blockchain that follow a specific transaction protocol for digital contracts when predetermined conditions are met, such as "if/when … then" scenarios. They can be used to create new cryptocurrency tokens, release designated funds to the appropriate parties and more.

ETH:
The abbreviation used for the Ethereum cryptocurrency.

Fiat money:
Government-issued currency that is not backed by a commodity such as gold. Most modern paper currencies, such as the US dollar, are fiat currencies.

Fintech:
A broad term covering the technology-enabled delivery of financial services. Crypto is focused on using blockchain technologies for a range of applications including those in the financial space. Fintech focuses on financial applications using both blockchain and non-blockchain technologies, though in practice it tends to be used more in reference to the latter.[68] Mobile apps that allow a user to transfer funds to a friend electronically tend to be fintech, for example, while the backend of such apps typically involves traditional bank-to-bank transfers that are made more convenient by the app.

Hot wallet:
A virtual currency wallet accessible online that facilitates cryptocurrency transactions between the owner and end-users. A **cold wallet** is stored on an offline platform and is only accessible after connecting to the internet. Because hot wallets are connected to the internet, they are vulnerable to hacking and unauthorised access, while cold wallets are not.

Mixer or tumbler:
A cryptocurrency service that mixes different streams of identifiable cryptocurrency to improve the anonymity of digital transactions and their users.

Non-fungible tokens (NFTs):
Digital proofs of ownership verified on a blockchain. They are non-fungible in that the underlying blockchain technology makes unauthorised digital copies impossible to create. A limited-run piece of digital art is an example of an NFT.[69]

Stablecoin:
Any cryptocurrency designed to have a relatively stable, as opposed to fluctuating, price. This is typically achieved through pegging to a commodity or a specific currency, or through having its digital supply regulated by a certain algorithm.

Tokens:
Units or representations of value stored on blockchain. Tokens can be fungible and used interchangeably – a Bitcoin is a token – or non-fungible and used to assert ownership rights over a digital asset. The "tokenised economy" or "tokenised internet" refers to systems that are based on the tokens created, stored and transmitted on blockchains.

Unhosted or non-custodial wallet:
A digital wallet in which crypto users can store their own cryptocurrency without any gatekeeping or oversight from an intermediary financial institution or cryptocurrency exchange in a way that resembles holding cash in a physical wallet as opposed to in a bank account. Unhosted wallets are found only on decentralised finance platforms. There are many licit reasons to own an unhosted wallet, such as user privacy and security, but their unregulated nature presents opportunities for illicit exploitation.

Virtual asset service provider (VASP):
An individual or business that facilitates the exchange, transfer, custody, offer or sale of a virtual asset such as cryptocurrency.

Web3:
A catch-all term used to describe a new phase of the internet that is based on blockchain and related technologies and will be user owned. Web3 was preceded by Web1, when the internet was structured around static, "read-only" applications that did not offer a forum for real-time engagement, and Web2, characterised by social media platforms driven by user content and managed in a centralised way.[70]

ENDNOTES

1 The United States' William M. (Mac) Thornberry National Defense Authorization Act (NDDA) for Fiscal Year 2021 provides the following definition on derisking "actions taken by a financial institution to terminate, fail to initiate, or restrict a business relationship with a customer, or a category of customers, rather than manage the risk associated with that relationship consistent with risk-based supervisory or regulatory requirements, due to drivers such as profitability, reputational risk, lower risk appetites of banks, regulatory burdens or unclear expectations, and sanctions regimes", Pub. L. No. 116-283, § 6215(c)(1), 134 Stat. 3388, 4580-81 (2020).

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19 Fungible assets are items or goods that can be exchanged because they are effectively identical and carry the same value.

20 This can be particularly appealing in contexts where intermediary banks would otherwise be required for conversion to USD. Such an approach can work in contexts where remittance flows are significant, or where barriers may be be in place to using some local banks, such as in cases of Syria and Afghanistan.

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