



Contents

Introduction	3
Trends	5
Case Studies	12
TCX	12
Frontclear	15
Guarantco	18
ILX Fund	21
InfraCredit	24





Investing in emerging and frontier markets comes with a wide range of challenges and risks that are (perceived as) high and are for the most part not fully reflected in the price. This makes it difficult for many potential investors, whether institutional or private, to engage. It is Cardano Development's mission to develop financial solutions to reduce those investment risks, to help investors to invest and to build financial markets that are engaged in developing countries, where finance is an essential ingredient for inclusive, sustainable and resilient economic growth.

Empowering frontier economies

We believe that a thriving local currency financing plays a vital role in unlocking the driving force of finance to power economic development. Founded in 2007, Cardano Development (CD) has been driven by this vision since its first innovation: The Currency Exchange Fund (TCX), which shields investors and local entrepreneurs in developing countries from the ubiquitous foreign exchange risk. Since then, driven by our entrepreneurial and innovation mindset, risk management skills, and above all our passion to contribute to the capital market development in frontier markets, we have to date incubated and/or scaled eight financial solutions that catalyse investments in those markets. And we actively pursue new initiatives that can scale up in the real world.

Our impact

With the support of development banks and donors, the organisations created within our group have mobilised directly more than USD 2.5 billion to date. Even more, we believe that the real impact of our initiatives lies in the indirect contribution to more thriving and inclusive financial markets that facilitate sustainable economic development. We act as a crowbar to help prize open exotic markets which investors would not dare enter otherwise, and thus create the environment for these investors to realize the impact on the ground.



In this Impact Review, our first, we aim to illustrate how Cardano Development directly and indirectly promotes the acceleration of financial sector development. At present, we cannot (yet) quantify our impact beyond the capital that each of our organisations has mobilised directly. But we can illustrate the quality of our contribution by showcasing some of our businesses whilst we are working on a quantification thereof.

Our path to change

While each of our businesses serve their own niche local currency market, be it hedging, providing guarantees for debt or factoring SME receivables, they all spring from the same set of skills and competencies that make CD unique.

We focus on developing state-of-the-art expertise in risk management applied in complex settings, in deploying development grants and technical assistance to transfer knowledge to market stakeholders, in our knowledge of mobilising risk capital, and in designing and managing financial organisations - as well as maintaining our partnership network of development institutions, banks and other financial sector organisations.

We distinguish five direct ways in which our organisations contribute towards the acceleration of financial-sector development. Each case study in this report illustrates one of these five ways.

Market trends

As an incubator of financial services companies, it is important that we identify industry trends and evolve along with them. Thanks to our portfolio companies which operate in different financial market segments, industries and geographies, we are well positioned to recognise which direction our markets are going.

In this report we highlight four major trends in investing in frontier and emerging markets and how CD is working on innovations that help to shape the future by enhancing local investments through smart blending, increasing capital mobilisation for the SDGs, and supporting climate finance and the energy transition.

Five cases to illustrate our impact

The story of the ILX Fund that co-invests alongside development finance institutions demonstrates how CD works on innovations that mobilise funding for the SDGs at billion-dollar scale. We go back to our roots in de-risking investments by describing how TCX increases transparency in risk and pricing of currency products in the many markets where it operates.

Frontclear, founded by CD in 2015, is an example of how a specific credit solution can be the key to making a market function better, in its case local banks offering better financial products to their clients.

While all of our organisations promote increased investment opportunities, in this report we also highlight the work of GuarantCo's local currency credit solutions, which have enabled multi-billion dollar flows in investments in critical infrastructure, including power, energy, social infrastructure and digital communications in lower income countries across Africa and Asia.

We also share the story of how the use of guarantees can be targeted to a specific developing local capital market, showcasing InfraCredit in Nigeria.





How do you manage risk to enable people to invest in frontier markets manage risk to facilitate investments in emerging and frontier markets? That is the central question that guides Cardano Development in its quest to help break down the barriers that hold back large-scale investments in these countries.

Working at the forefront of opening up capital markets, Cardano Development is keen to share its insights in developing these markets and how it is continuously innovating to address the biggest challenge in meeting the Sustainable Development Goals (SDGs): mobilising institutional and private capital to finance the SDGs.

Meeting the SDG scaling challenge

CD has carved out a well-defined niche in designing, testing, and scaling up financial solutions that enable large-scale investments in frontier markets.

'Can we get an innovation to scale? That is our primary driver - helping to open markets by creating lasting capital market institutions,' says Joost Zuidberg, CEO of Cardano Development Group (CD).

'If we take the SDGs seriously, the main problem is scaling up. Not doing things differently. And the main barrier to scaling up is the availability of projects that are investible.

A telling illustration was shown up when Nigeria was included in the MSCI Global Emerging Markets Index, a leading benchmark. The inflow of demand triggered by tracking investors made the cost of funding to fall by around 50 basis points. The moment the country was removed from the index, a few years later, costs went up again. 'Being connected to international financial markets has a lot of value, says Zuidberg.



Democratising Data

You can only convince investors to invest at scale, however, if the strength of the asset class is demonstrated by market data. Lack of data is today one of the greatest barriers to unlock investment flows. As the most active stakeholders in long-term development finance, the track record of development banks is highly relevant, but remains unavailable for public analysis. Without access to the data, models rely on sovereign ratings that suggest much higher risk than actually experienced. Overestimation of risk leads to overly conservative capital requirements, in particular when assessing the need for first loss support in blending. 'If the right data was used, donor first-loss tranches could reduce by a factor between 3 to 10 times,' says Zuidberg. This would materially scale up the potential for blending.

Striving for thought leadership

Zuidberg is as clear about the group's mission as he is humble about the organisation's impact. Measuring and attributing your impact; these are tough nuts that no organisation has cracked successfully yet.

'In our case, we are part of a much larger movement to develop local capital markets, and should not claim all credit for the result. We are rowing with the current,' is how he sees it. 'We believe that being a driving part of a dynamic ecosystem that collaborates to achieve results is the optimal role for us. CD is aiming to be a thought leader to reinforce positive trends. That way we can mobilise much more capital towards the SDGs.

Zuidberg cites the example of InfraCredit in Nigeria (see also p. 24), which proved the strength of a local institution to create change. One year after the company guaranteed its first domestic infrastructure bond in 2018, local pension funds were accepting the product as the new status-quo and were pressing what 'next big thing' the company would launch into the market. Four years later, InfraCredit's guaranteed bonds are oversubscribed by on average 45% thanks to the active interaction with the local Pension Fund Administrators.

Zuidberg: 'Before deals actually happen, you need a shift in people's mindset. When you're successful in doing that, the impact runs ahead of you.'

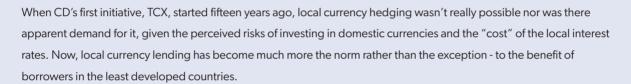




Four leading trends in financial markets in developing countries

In the next paragraphs, we highlight four major trends in investing in frontier and emerging markets and describe some of CD's latest financial innovations to enhance local investments through smart blending, to increase capital mobilisation for the SDGs, and to support climate finance and the energy transition.

1. Local currency becoming the norm



In 2022, the demand for local currency finance in Africa is reaching new heights. Demand for hedges far outstrips supply, according to TCX (see also page 12). The company also notices that the asset class is gaining popularity among larger emerging market funds. Not only is it good business, but the ESG (environmental, social and governance) benefit that comes with hedging local currency loans is highly attractive.



Mobilising institutional and private capital for the SDGs



Although most institutional and private investors indicate their interest in investing in high-impact initiatives in emerging and frontier markets, the reality is that most still shy away from making actual investments at scale outside of the OECD. We need to convince mainstream investors to go 'from billions to trillions to meet the SDGs and end poverty, protect our planet and livelihoods.

That is why CD is mostly working on innovations to help investors invest, rather than working with companies to make more projects such as critical infrastructure investible. We create the financial plumbing that removes structural hurdles to invest.

This year, for example, CD launched the ILX Fund (see also p.21) that attracted a cornerstone investment of USD 1050 million from Dutch pension provider APG and other leading institutions. ILX facilitates institutional investors to co-invest alongside the world's leading development finance institutions, who have decades-long experience and a strong track record investing in developing countries.

'ILX acts as a bridge between pension funds and development finance institutions,' Zuidberg explains. He defines the launch of the ILX Fund as a 'watershed moment' in mobilising institutional investors whose finance is badly needed to meet the SDGs.

Creating market liquidity to attract large pools of impact capital

Another way of facilitating investment is to take away one of the bigger hurdles that make investors reluctant to invest: the inability to exit from illiquid emerging market impact investments, which suffer from the absence of a proper market to exit investments in the same way as you would a listed security in mainstream markets.

Octobre Liquidity Guarantee Facility (OLGF), a joint initiative of CD, Innpact and Octobre management, is a start-up company that is purely focused on designing instruments to improve market liquidity for impact investments. In the absence of an existing market, Octobre will create a warehousing facility to buy out investors requiring an exit whilst at the same time establishing a focal marketplace for new parties to takeover the assets.

Offering options to easily divest will help attract more investors into impact investments in the first place. Market liquidity is essential for the asset class to become mainstream.



3. Smart blending

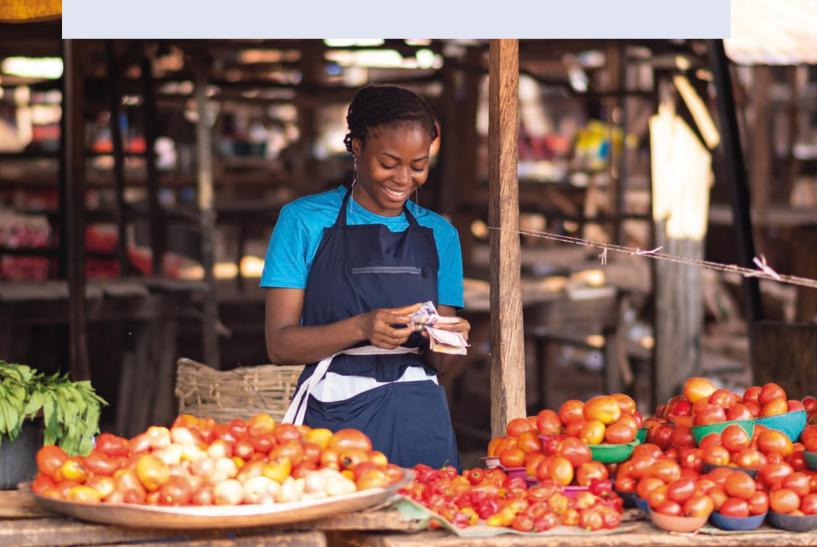


The growing use of blended finance, i.e., mixing impact-first grant funds to de-risk mainstream investors, has been developed since the early 2000's and has taken hold in a big way. In particular, blending through the use of guarantees is very popular, a trend that CD is happy to reinforce. The costs are low, the track record of deals is impressive, and they are mobilising a lot of capital towards the SDGs.

CD welcomes the growing popularity of blending to de-risk investments but stresses the importance of smarter blending. 'Subsidies, if misdirected or over-scaled, can make market actors lazy and reduce ultimate scalability, the exact opposite of what blending intends to achieve,' warns Zuidberg. 'If donors are not strict in the application of their subsidies, the damage can be widespread. Apply donor money to the right place and in the right amount and invest in a good understanding of where the market failures are.'

'The ILX Fund is an example of smart blending. The ILX investors act without any de-risking structures.' ILX was able to show that investing in so-called B-loans offers an attractive return and diversification, by analysing the DFI track record and proving the strength and stability of their historical returns. The use of donor funds was limited to development grants to cover set-up expenses.

Many of CD's financial innovations make use of smart blending, whether it's the use of local currency guarantees for infrastructure investments (GuarantCo, see p. 18) or local financial institutions (Frontclear, see p. 15).



4. Prioritising climate finance



As tackling climate change has clearly moved to the top of the global development agenda, CD's latest initiatives focus on facilitating blended finance to support green investments.

In this review, we highlight two new specialist climate guarantee funds that target large scale climate adaptation and mitigation projects and an innovative fund pre-financing the provision of clean cooking, energy and water to the poorest communities using carbon credits.

Guaranteeing certified green bonds

The Development Guarantee Group (DGG), an initiative of CD and DGG's Management, aims to use guarantees to address the highest hurdle facing market growth in exotic geographies - credit risk. DGG's first fund, the Green Guarantee Company, will boost the attractiveness of green bonds from developing countries, for mainstream investors.

The global green bond market is growing fast, but only a fraction of the climate finance raised is being directed towards developing countries, as investors typically require an international investment grade rating, whereas developing countries have junk-bond rating levels. GGC's guarantees will lift borrowers' credit rating above the required investment grade threshold and unlock access to the global credit and capital markets. GGC is targeting an initial guarantee portfolio of around USD 1 billion, with the ambition to scale and mobilise to at least USD 4 billion of climate finance into developing countries within the next decade.

De-risking loans for deforestation-free, sustainable agriculture

The AGRI3 Fund (developed together with partner FOUNT) aims to unlock USD1 billion of private (bank) finance by providing local-currency partial-risk guarantees and technical assistance, to enable commercial banks and other funders to finance deforestation free agriculture and sustainable land use in developing countries. So far, it has facilitated a number of high-impact transactions funded by the Rabobank in sustainable soy and cattle in the Cerrado region near the Amazon. AGRI3 is actively working to expand with new partners and new geographies to generate high-impact agri investments through the mainstream investors and banks that it engages with.

AGRI3 was initiated by the UN Environment Programme and Rabobank, and supported by FMO, the Dutch Entrepreneurial development bank and IDH, the Sustainable Trade Initiative.





4. Prioritising climate finance

Outcome-based financing for clean cooking and water provision in sub-Saharan Africa

According to the World Health Organisation, close to four million people die prematurely every year from illnesses caused by household air pollution from cooking with wood, charcoal or animal dung. Drinking contaminated water is estimated to cause a further half million diarrhoea-related deaths annually. Furthermore, wood-burning cooking depletes forests, causes substantial carbon emissions in the world's most densely populated agglomerations and distracts women from more productive use of their time.

BIX Capital, initiated by the Shell Foundation, FOUNT and CD, aims to improve the living conditions for those at the base of the wealth pyramid in sub-Saharan Africa and South Asia by pre-financing the working capital of small producers and distributors of clean cook stoves, water purification and solar-powered home devices (e.g. lights, fridges).

These companies often struggle to grow because they cannot get any working capital financing. But when they can scale up their sales, their products generate significant reductions in CO2 emissions, increase life expectancy, reduce deforestation and save time for women, whilst contributing to improved livelihoods for those who use such products.

BIX helps these companies to quantify, certify and monetise these impacts, for example to establish and pre-fund carbon credits programs, which yield future income, used to repay the financing provided by BIX.

BIX accepts the receivables stemming from the sale of the carbon credits as collateral for its loans, as the company can use these proceeds to repay its BIX loan. The fund manager can basically demonstrate its impact by the loan amount that has been repaid.

BIX is now fully invested, supporting ten social enterprises that have reached over 13 million Africans on low incomes. Based on this track record, BIX is currently in the process of launching BIX II and looking to expand its impact further.





Investing in emerging markets comes with a whole range of risks that are perceived as high and, for the most part, are not fully reflected in the price of financing. Foreign exchange risk is probably the most apparent and can hurt fragile borrowers in developing nations the most. Most global crises result in the depreciation of the currency of developing countries. This could be related to Covid, a crash in commodity prices, or a war that leads to higher energy and food prices, key imports for developing nations.

Currency devaluation has the potential to devastate local businesses and institutions if they are funded with loans from international investors denominated in dollars or euros. When the local currency that determines their income levels depreciates, these enterprises struggle to meet their hard currency debt payments. When that happens, their financial planning is severely disrupted, leading to stagnation in growth, severe shortage in local liquidity, closure of cross-border financial flows and substantial increase in credit risk. This self-strengthening vicious circle leads to a systemic economic imbalance unable to absorb shocks and leaves the productive sectors in developing countries underfunded and with very expensive debt. This in turn leads to permanent capital shortage. In this way, hard currency lending exacerbates the effect of crises.

Local business should finance itself in local currency

Any business that earns its money in local currency should in principle be financed in that local currency. A real-economy SME in Nigeria should not worry about how the Nigerian naira is performing against the dollar. Yet, most development finance is still in US dollars. Fifteen years ago, The Currency Exchange Fund (TCX) embarked on a mission to change this and to develop local capital markets in frontier and emerging markets.

Since then, TCX has converted more than USD 9.7 billion development finance loans to microfinance institutions and SME banks into local currency loans. As such, TCX is increasing the financial resilience of local businesses and households but is also supporting the development of the local financial sector.



Sets the trend towards local currency financing

From proof of concept to The Currency Exchange Fund

Between 2006 and 2007, FMO and Cardano Risk Management partnered to analyse the case for an industry wide currency hedging facility and confirmed FMO's experience that a well-diversified local currency portfolio can substantially reduce risks, generate a small positive return and can absorb currency crises effectively as long as it has sufficient capital buffers

TCX fully absorbed currency shocks in Azerbaijan

TCX's work in Azerbaijan illustrates the positive impact of local currency financing.

Azerbaijan in the Caucasus is an oil-driven middle-income country and, as such, a highly dollarised economy. Fifteen years of high economic growth, fuelled by increasing oil prices, was brought to an abrupt end when the oil price fell sharply in 2015.

Over the course of 2015, the country had to abandon the currency's peg to the dollar and faced an abrupt 100% depreciation of its currency (the manat). The oil crisis evolved into a currency crisis, which in turn led to financial sector upheaval and economic turmoil when local banks were confronted with heavy loan losses. Their clients - households and businesses - were defaulting on their dollar or dollar-linked loans

In the ensuing crisis, the default rate on dollar loans was more than double that on manat loans. Banks with loan portfolios not highly exposed to the dollar were more capable of sustaining the crisis and recovering. TCX fully absorbed the currency shock - two massive depreciations in 2015 - on USD145 million worth of outstanding development finance loans to such financial institutions.

The result is that the microfinance institutions and SME banks that were financed through these loans were able to shield their clients - a great number of businesses and households - from financial distress.

TCX shows local-currency financing is the way forward

Since its inception, the Fund has grown from a USD 330 million gross portfolio in 2008 to USD 4.5 billion in 2022. In the year 2021, it hedged USD 1.4 billion of new external lending in 51 currencies, while the average 'Difficulty to Hedge' score was 7 out of 10.

The majority of TCX's hedging transactions still support micro and SME finance but there is a growing interest of providers operating in the infrastructure, climate and renewable energy sectors to secure finance in local currency.





Sets the trend towards local currency financing

Deepening local financial markets

TCX's accelerated growth reflects the rising trend to finance in local currency. This contributes to the Fund's second goal of deepening local financial markets, a goal it shares with its development finance clients.

It positions itself as a thought leader on the theme of local currency, e.g., through advocacy efforts such as organising webinars, featuring in publications, speaking at conferences, and providing technical assistance to borrowers and lenders - all in support of local market development.

TCX actively seeks to place its currency exposure back into the mainstream markets, offering deals to private or institutional investors who have a risk appetite to include frontier market currency exposure into their portfolios. The volume of these risk transfers is a measure of how the Fund contributes to market development. Since its inception, TCX has sold USD 3 billion of frontier currency exposure, through 146 individual offshore local currency bond issuances. In the most recent two years, it was successful in raising the level of exposure passed on into the market from 40% to 48% of originated dealflow.

Strengthening supply and demand

To further stimulate the development of local currency markets, TCX has identified several priorities with regards to strengthening the supply and demand side.

On the supply side, the Fund actively promotes local currency financing for the off-grid renewable energy sector.

Households that buy solar lamps, televisions and fridges are often forced to accept a currency risk that comes with energy contracts in dollars or euros. This is comparable to what happened in the microfinance sector in the early 2000s.

TCX also prioritises infrastructure, such as water and public transport. The positive impact of taking away the risk of currency volatility on the tariffs of these public services is high.

On the demand side, TCX continues to increase the portion of its business that it successfully places back into the market. This makes development finance more sustainable, transparent and efficient.

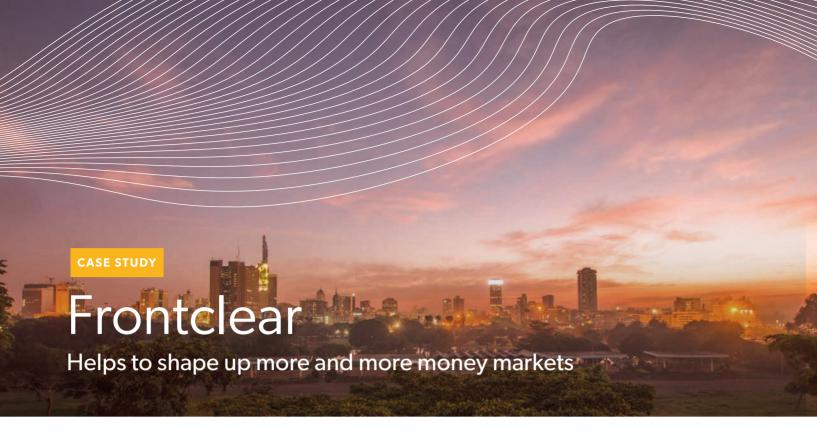
Getting public sector borrowers involved

A strategic priority for TCX is to de-dollarise sovereign lending in relatively well-developed domestic capital markets, such as Kenya and Uganda, by embedding currency hedges and exchange risk mitigation instruments in their debt management frameworks.

This would not only reduce the currency risk for government but also deepen the local currency market.

Governments can start to recycle their own country's savings rather than rely only on those of developed economies.





In many developing countries, most businesses struggle to get a bank loan. The costs are too high and administrative hurdles are difficult to overcome. This stifles investment and puts a significant dampener on the economic growth of these countries, and on people's ability to prosper.

That's why Cardano Development focuses on developing solutions that lead to better-functioning local financial markets, in particular to open and deepen the domestic money, interbank, and local currency bond markets. It is widely accepted that financial-sector development is essential to enable economic development that can benefit everyone. Unlocking investment capital is even more important following the Covid-19 pandemic, with central banks in many emerging markets and developing countries lacking the necessary firepower to kickstart an economic recovery.

Developing inclusive money markets

Frontclear, founded in 2015 by Cardano Development, focuses on building more stable domestic money markets, in particular through more inclusive interbank markets in developing countries, where these markets are often fragmented, illiquid and lack sufficient legal and regulatory assurances.

By providing guarantees to cover counterparty credit and legal risks, the Amsterdam-based company provides smaller local banks with access to global and local interbank markets. The guarantees are de-risked by using local currency collateral such as cash or government securities. This allows domestic financial institutions to make more efficient use of their local currency assets, to access local and international financing and to manage their risks more efficiently.

Better access to interbank markets lowers local banks' cost of capital and allows them to increase their lending to local businesses, at more favourable terms and conditions. An open, active interbank and money market is also a prerequisite for an effective monetary policy that can influence domestic lending.



Frontclear

Helps to shape up more and more money markets

Combining guarantees and market shaping

The company not only covers credit risks for investors but also offsets market, legal and operational risks. This includes providing credit guarantees for local banks in emerging and frontier markets, which cover a counterparty bank's credit risk.

It may take many years to transform a fledgling money market into a mature, inclusive market. That is why Frontclear is combining its guarantees with a strategy to shape the market. This is not just a supporting activity; it is central to Frontclear's strategy.

Removing structural barriers by strengthening the legal and regulatory, knowledge and financial infrastructure frameworks can accelerate market development.

Market development takes centre stage

For each phase in creating stable and inclusive money markets, Frontclear offers the appropriate market shaping support through its Frontclear Technical Assistance Programme (FTAP).

The programme offers a combination of local capacity-building activities, regulatory and infrastructure support to banks and regulators. It has built its own online training portal called the Frontclear Academy and the Money Market Diagnostic Framework Portal. This tool offers local regulators a comprehensive analysis of current market development and structured recommendations towards market development.

In 2020, the FTAP disbursed USD 413K in funding, reflecting the importance of these activities. Overall, it has conducted 49 projects in 23 countries globally, including 9 in Africa.

From creating access to systemic intervention to inclusive money markets

Especially in the first two to three years of opening and entering a new market, Frontclear focuses on creating access and knowledge. It identifies barriers, offers basic training, reviews the legal and regulatory framework, and launches model transactions, typically still cross-border transactions.

In the next three years, attention shifts to advanced training, legal and regulatory reform, and market infrastructure feasibility studies. The market is ready for domestic and multi-party guarantees.

In the final phase, more advanced guarantees and central clearing are introduced. FTAP provides further training and advice for legal reforms and putting market infrastructure in place as more and more local and international banks participate in the inter-bank and money market.

In 2022, Frontclear concluded its first multi-institution product in Uganda, shifting from bilateral transactions to creating and maintaining an industry-wide trading platform where banks trade with each other on an equal footing because credit risk has been cleared away by Frontclear. The institution is now engaging in a number of other African countries to duplicate the structure, as the experience in Uganda demonstrates the positive impact of a "financial highway" to make deal making easier.



Frontclear

Helps to shape up more and more money markets

Playing the long game

Knowing how to measure the tangible quantitative impacts of market development is still in its infancy. Nevertheless, evidence of an increase in investable and more efficient local financial markets is building, albeit still at a relatively early stage.

Although Frontclear is still a small player in the world of development finance, it has clearly shown its ability to close transactions and successfully develop local money markets in emerging and developing countries since its foundation seven years ago.

It reached a critical milestone in 2020 when the company was financially breaking even, with a net income of USD800K on the back of a higher volume in transactions and lower financing costs provided by a second funding round in December 2019.

From its foundation in 2015 until 2020, Frontclear mobilised more than USD1 billion in funding across 15 countries, on the back of USD633 million in guarantees. It worked with 46 different local banks and 14 global and regional counterparties.







Solar parks and wind parks, energy grids, water supply and treatment companies, houses and roads: infrastructure is key to achieving the SDGs. Access to clean and reliable energy unlocks economic growth and improves lives, better transportation facilitates trade and employment.

Estimates show that there is an annual SDG financing gap of some USD 2.5 trillion in developing countries between current funding and what is needed to reach the SDGs by the target date of 2030. Around 75% of that gap consists of critical infrastructure projects.

Closing the infrastructure financing gap

It is the ambition of local currency guarantor GuarantCo, the guarantee arm of the Private Infrastructure Development Group (PIDG), to crowd in the private sector investments in much-needed infrastructure in lower-income countries in Africa and Asia - to make sure the infrastructure that can make a real difference to local people's lives will be financed.

Whether it's a local solar power plant, much needed roads or affordable housing, these companies receive their revenues in local currency, while they mostly are only able to attract funding in foreign currency. This mismatch creates a currency risk. With the support of GuarantCo, providing local currency guarantees to support debt financing, these businesses can get funded by local investors with debt that matches their funding requirements to their revenue streams, eliminating the exchange rate risk.



GuarantCo

Act local to plug the infrastructure funding gap in Africa and Asia

Leverage of three

The company, which has its headquarters in London and offices in Nairobi and Singapore, can mobilise a portfolio of up to USD 1.8 billion of guarantees by leveraging its - mostly public sector - capital. GuarantCo is able to leverage every dollar invested by the private sector three times through blended finance, thanks to its investment grade credit ratings ranging from Moody's Al and Fitch's AA- (international scale) to AAA (national scale) from Bloomfield and PACRA. The company uses a range of contingent credit solutions including guarantees for partial credit, tenor and/or liquidity extension, and EPC, portfolio and framework guarantees.

The guarantee size for a single transaction is between USD 5 million and USD 50 million equivalent in local currency, with some exceptions. The maximum tenor is twenty years.

Guarantees can unlock millions of investments

In Bangladesh, one of the world's fastest growing economies over the last decade, GuarantCo is putting a lot of effort into helping to build the local capital market and bridge the infrastructure gap through innovative transactions.

In May 2021, GuarantCo provided PRAN Agro, the country's largest flower and processor of fruits and vegetables, with a 100 percent credit guarantee for a seven-year local currency bond of 2.1 billion Bangladeshi Taka (c. USD 25 million) to finance the agri-food company's expansion plans.

In several ways, this is a landmark transaction for the Bangladeshi market. It is the first blended finance structured bond of its kind; the first to be subscribed by an international insurance company and the country's first directly issued digitised bond under Private Placement of Debt Securities Rules; no credit solution provider has ever guaranteed a bond of this kind in Bangladesh.

A key part of PRAN Agro's strategic plan is to meet the increasing demand for processed agricultural products, both locally and overseas, by investing in the expansion of its production lines as well as its workforce.

By investing in land development, construction, storage facilities and processing machinery, PRAN Agro expects it can increase its sourcing from local farmers by more than 20%, which will improve their livelihoods.

In May 2019, GuarantCo also provided a guarantee to support a fifteen-year dual currency loan for Technaf Solartech Energy Limited, the first and currently only operational solar power plant in the country, serving around 136,500 people with better access to energy.

These transactions have been made possible by GuarantCo's engagement with the local market players - financial institutions, regulators and government - which makes it easier to open up the local credit market.

GuarantCo anticipates that transactions such as PRAN and Technaf will have a demonstration effect in the market, unlocking access to deeper institutional capital pools with longer tenors for Bangladeshi companies to develop sustainable infrastructure projects.



GuarantCo

Act local to plug the infrastructure funding gap in Africa and Asia

Developing local capital markets

Before local transactions can take place, GuarantCo often lays the groundwork needed to develop local capital markets through capacity building workshops and dedicated advice to clients, regulators and issuers.

To allow domestic capital from investors, such as pension funds and insurance companies, certain regulations need to be changed to make it possible for them to become involved. By providing training to market players, including the institutional investors, they are able to better understand and assess the risks related to infrastructure assets. This helps to foster a more supportive investment climate.

As part of its market entry in Bangladesh, GuarantCo, with the Private Infrastructure Development Group (PIDG) Technical Assistance funding, commissioned a study on the Bangladesh Bond Market in 2019. The findings supported stakeholders to focus on developing the local capital market through a mix of measures including policy changes, awareness generation and the introduction of financial products to mitigate potential risk for investors. Together with the Dhaka Chamber of Commerce & Industry (DCCI), GuarantCo organised a conference to discuss the report's recommendations.

In October 2021, GuarantCo, the Ministry of Commerce and the DCCI hosted a webinar on 'Bridging the infrastructure financing gap through credit solutions in Bangladesh' as part of the international Bangladesh Trade & Investment Summit 2021, which was attended by Her Excellency Sheikh Hasina, Honourable Prime Minister, Government of the People's Republic of Bangladesh.

The webinar demonstrated why long-term, local currency infrastructure financing is crucial for Bangladesh, the importance of crowding-in institutional capital and how credit enhancement programmes can be successfully implemented to help achieve infrastructural growth, illustrated by GuarantCo transactions Technaf and PRAN Agro.

Focus on innovation

GuarantCo is always interested in finding a solution when a project cannot get financed. In 2019, in Togo, a country in West Africa where it had no prior business, the company identified a plan to construct a natural gas-fired thermal plant in need of liquidity support. The power plant would provide electricity to nearly 20% of Togo's population.

It designed a guarantee to extend the 7-year tenor for commercial banks to 14 years to facilitate the refinancing when the tenor of the loan comes to an end. It was also GuarantCo's first transaction to be financed mainly in local currency, which helps the power company offer a competitive electricity tariff to the local population.

Since 2005, through its guarantees and loans, GuarantCo has enabled USD 6 billion of total investments and USD 5 billion of private sector investment giving 43 million people improved access to infrastructure and creating around 327,000 jobs in Africa and Asia.

GuarantCo is funded by the governments of the United Kingdom, Switzerland, Australia and Sweden, through the PIDG Trust, The Netherlands, through FMO and the PIDG Trust, France through a stand-by facility and Global Affairs Canada through a repayable facility. GuarantCo's portfolio and investment strategy are managed and executed by its fund manager Cardano Development via the GuarantCo Management Company.

GuarantCo is part of the Private Infrastructure Development Group (PIDG). GuarantCo's portfolio and the investment strategy, set by PIDG, are managed and executed by the outsourced fund manager, Cardano Development, through GuarantCo Management Company.





The COVID pandemic focused many investors' minds to reconsider their investment strategies, in light of the impact of climate change, environmental degradation and rising inequality. The crisis underlined the critical need for innovative funds that catalyse institutional capital towards the UN's Sustainable Development Goals (SDGs).

Despite the great level of attention and the best of intentions, the shortage in annual financing for developing countries to achieve the SDGs by 2030 has risen by USD 1.7 trillion in 2020, according to the OECD. This shortfall comes on top of the existing gap of USD 2.5 trillion annually.

We need to go from 'billions to trillions' to meet the SDGs and end poverty, protect our planet and livelihoods. This is only possible if institutional investors invest in the SDGs at scale. It would require a shift of only 3.7% of the USD 100 trillion of assets held globally by institutional investors to close this gap, according to the OECD.

New innovative SDG-focused credit fund

Fund manager ILX Management (ILX) has designed an innovative way to help bring about this shift. The ILX Fund I, launched in January 2022, co-invests with a broad range of leading multilateral development banks (MDBs) and other development finance institutions (DFIs) that have decades of experience in direct investments in line with the SDGs in emerging and frontier markets.

Cardano Development and the ILX team started exploring the investment thesis following the launch of the SDGs and adoption of the Paris Agreement in 2015. They conducted an extensive analysis of market data extracted from thousands of MDB and DFI private-sector loans.



ILX Fund

Newly-launched ILX Fund creates institutional capital flow towards the SDGs

It confirmed that investing in these so-called B-loans is a viable asset class: the loans' default ratio is low, while the risk-adjusted returns are attractive. Contrary to traditional blended finance, the ILX Fund doesn't need concessional funding to lower the investment risks for more commercial investors.

To build the investment case, ILX received donor funding from KfW, on behalf of Germany's Ministry for Cooperation and Development, the Dutch Ministry for Foreign Affairs, and the UK Foreign Commonwealth and Development Office.

Mobilising private finance at scale

The Amsterdam-based fund invests its capital at an equal share in private-sector loans arranged by MDBs and DFIs, such as the Asian Development Bank (ADB), African Development Bank (AfDB), European Bank for Reconstruction and Development (EBRD), IDB-Invest, International Finance Corporation (IFC) and Dutch development bank FMO. This means that investors have the same level of risk and return as the development banks they co-invest with.

Whether it is the EBRD, IFC or FMO, these institutions have a longstanding track record of investing in developing countries and maintaining the highest environmental, social and integrity standards. They also have programmes in place to support their portfolio companies with technical assistance and training.

ILX launched its first fund with the backing of APG, Europe's largest pensions provider, which committed a total of USD 750 million on behalf of pension fund clients ABP and bpfBOUW and PF Vervoer, with an amount of USD 300 million. Partnerships such as the agreement with the EBRD to mobilise EUR 500 million of European pension fund capital have been agreed.

ILX in the long run will aim to launch follow-up funds to replicate its co-investing strategy providing investment opportunities at scale, matching SDG impact targets with market-based risk-adjusted returns.

Matchmaker between pension funds and development banks

There are a number of reasons why the ILX Fund is a good matchmaker between pension funds and development banks. Both are long-term investors; they operate in a semi-public market environment and it is their statutory mission to do more than simply generating financial returns.

Many pension funds, however, have always assumed that investing directly in companies in emerging markets is too risky, too illiquid and that the investments funds doing this are too small. Institutional investors have so much capital to invest that they need to invest at scale, otherwise it's too costly for them.



ILX Fund

Newly-launched ILX Fund creates institutional capital flow towards the SDGs

Attractive risk-adjusted returns and diversification

ILX takes all of these reservations off the table. It offers investors the desired diversification, attractive returns and the right scale.

The investment manager selects the best private-sector loans across regions, sectors and SDGs. It typically invests in middle-income countries from Asia to Latin America. Focus sectors are renewable energy and other key economic sectors such as sustainable infrastructure, manufacturing or agri-food. This diversification, which is what investors value most, distributes the risks across industries, geographies and SDGs, reducing the investment risk.

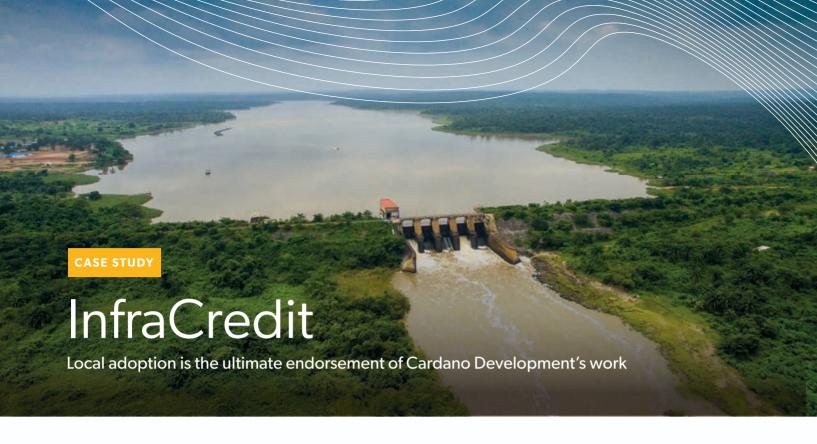
Catalytic effects

ILX's investment strategy's catalytic effects are twofold. By tapping into the billions of investment capital of institutional investors it mobilises investment capital at scale for the SDGs. It further strengthens the catalytic role of development banks because the co-investments free up their balance sheets for more lending.

DFIs hold capital against the loans and equity investments that they make. When ILX brings in co-investments, the development banks no longer run the risk on that part of the loan. This reduces their balance sheet, freeing up capital to invest in new riskier projects and businesses in lower-income countries where their investments are most needed.







Cardano Development's ambition is to act as a catalyst for making emerging and frontier markets investible and it particularly welcomes local adoption and replication of its innovative products. It sees this as the ultimate endorsement of its work.

More importantly, local institutional innovation contributes to the impact Cardano is striving for: accelerating local financial-sector development and enabling inclusive, sustainable and resilient economic growth.

A case in point is InfraCredit in Nigeria, which was established in 2017 as a partnership between the Nigeria Sovereign Investment Authority (NSIA) and GuarantCo, the guarantee arm of the Private Infrastructure Development Group (PIDG).

InfraCredit provides local currency guarantees to debt provided by Nigerian pension funds and other institutional investors, collectively creating the long-term local currency infrastructure financing ecosystem where the domestic banking market is unable to do so.

Accelerating infrastructure investments

In Nigeria, Africa's most populous country and biggest economy, the infrastructural development of the country is a priority for President Muhammad Buhari. New investments in critical sectors of the economy would support lifting 100 million Nigerians out of poverty by 2030.

The government estimates USD 1.5 trillion is needed in the next ten years to expand and improve its local infrastructure roads, schools, hospitals and energy networks.



InfraCredit

Local adoption is the ultimate endorsement of Cardano Development's work

Catalysing local investors

Local capital providers, however, shy away from financing infrastructure investments. Investing in infrastructure projects is generally regarded as a safe bet for institutional investors because of their consistent long-term returns and a possible hedge against inflation.

But most capital held by Nigerian pension funds, insurance companies or wealth funds is invested in government securities or local shares. According to the Nigerian pensions regulator PENCOM, local pension funds have allocated only about 0.5% of their total investments to infrastructure, while they are allowed to deploy as high as 4% of their assets to such projects.

InfraCredit is on a mission to change this. It acts as a catalyst for debt capital financing for infrastructure projects in Nigeria by providing guarantees in local currency. This 'insurance policy' guarantees part of the debt will be paid if the borrower defaults. It enhances the credit rating of the local debt issue by the infrastructure project sponsors, making projects investible for domestic institutional investors.

Building a local institution

InfraCredit was the logical next step in the development of Nigeria's market for local currency guarantees, as sponsored by NSIA and GuarantCo.

It was set up through technical assistance funding support from the Private Infrastructure Development Group to which GuarantCo belongs. It was initially funded with paid-in equity from NSIA and callable capital from GuarantCo, and subsequently with additional capital from KfW Development Bank, Africa Finance Corporation, InfraCo Africa, the development arm of PIDG, and African Development Bank. Four years later, InfraCredit is very much an accepted part of the Nigerian financial system. This high level of trust allows it to do deals at better rates. Ask a Nigerian pension fund how it finances infrastructure and it will point to InfraCredit.

Going local is a growing trend

'Going local' is now a trend when it comes to attracting financing in developing markets. There is a real and growing appetite from local pension funds, insurers, mutual funds and banks in a number of African and Asian markets to participate meaningfully in financing the real economy of their country. But in 2017 when InfraCredit was founded this was still a 'fantastic stroke of genius', as Cardano Development CEO Joost Zuidberg once described the initiative to set up InfraCredit.



InfraCredit

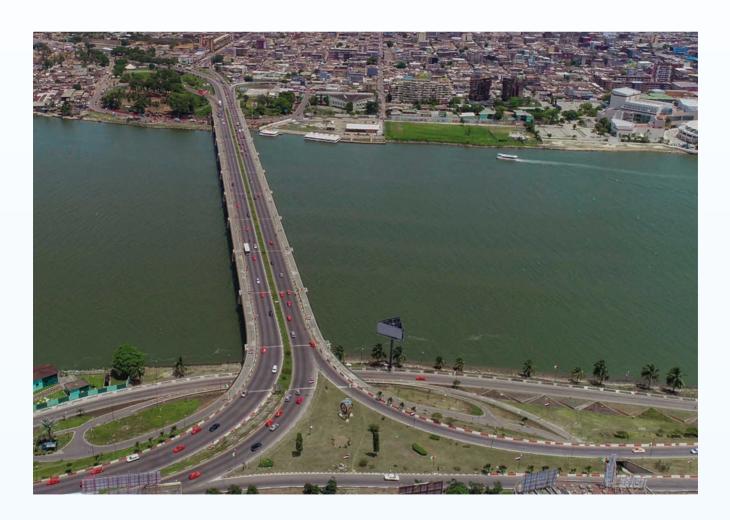
Local adoption is the ultimate endorsement of Cardano Development's work

Mobilising hundreds of millions of dollars

InfraCredit can currently guarantee up to 400 billion Naira (USD 900 million equivalent) in debt. Since it was founded five years ago, it has already mobilised over USD 200 million equivalent in debt from 17 Nigerian pension funds, supporting up to 2,302 long-term obs.

Eight infrastructure projects have reached a financial close, including the Shiroro Hydroelectric Power Plant in Niger State, which is the second biggest in the country, and the Gurara hydroelectric power plant in Kaduna State, and the Lagos Free Zone Industrial Park project in Lagos State.

The company's mandated pipeline is strong, containing deals worth more than USD 7 billion equivalent in transportation, gas and power (both on and off-grid), water and waste management, and ICT/telecommunications.







Impact Review and Trends 2022

Cardano Development

Mauritskade 63 1092 AD Amsterdam The Netherlands

www.cardanodevelopment.com

communications@cardanodevelopment.com

+31 (0) 20 235 6177

