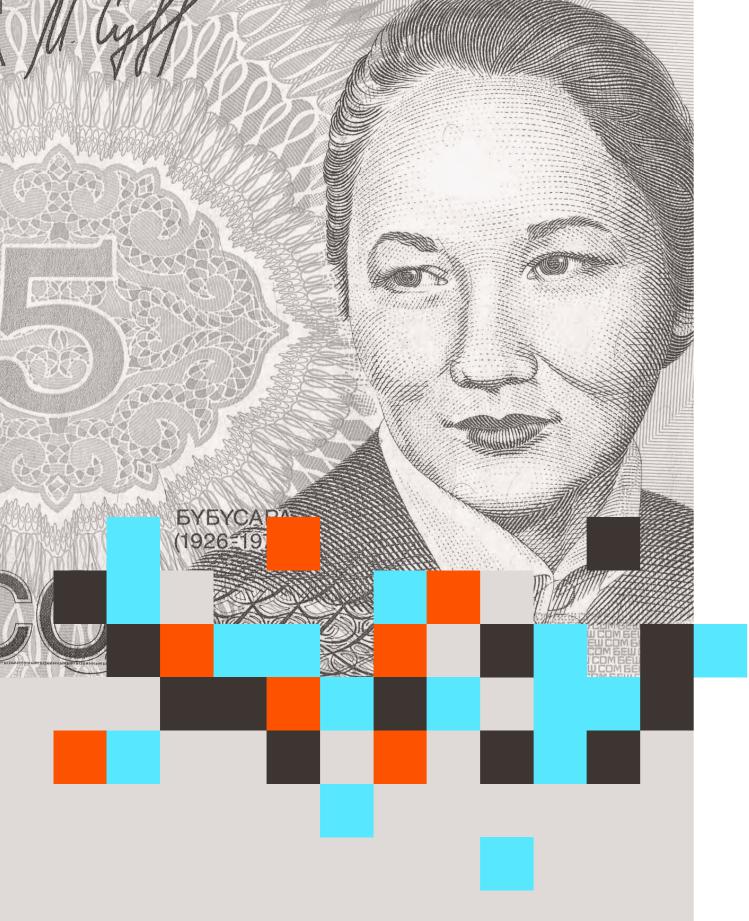




# IMPACT REPORT

2022





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TCX de-risked USD 1.38 billion of new development finance loans to emerging and frontier countries across 43 currencies in 428 transactions.

\$958M

to micro, small, and medium enterprises

to renewable energy and energy efficiency projects

LATIN AMERICA

to least developed countries

\$146.4M

**CURRENCIES** 

. . . . . . . . . .

........ ...

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........... 

**TRANSACTIONS** COUNTRIES

\$259M

in local currency bond issuances

1st

loan de-risked to sovereign borrowers

TCX supported financing towards nearly all UN Sustainable Development Goals, but in particular SDGs..











Colombia	38.3
Costa Rica	1.9
Dominican Republic	67.2
Guatemala	71.2
Honduras	25.9
Jamaica	10.0
Mexico	27.0
Vicaragua	5.9
Paraguay	12.1
Peru	43.2
JSD millions	302.7

#### SUB-SAHARAN AFRICA

Benin	6.1	Mozambique	4.0
Botswana	45	Nigeria	4.1
Burkina Faso	1.3	Rwanda	9.0
Cameroon	4.0	Senegal	2.2
Côte d'Ivoire	6.6	Sierra Leona	12.2
Ghana	4.9	South Africa	3.8
Kenya	20.4	Tanzania	125.5
Madagascar	9.4	Togo	0.4
Malawi	10.5	Uganda	40.5
Mali	8.2	Zambia	19.3
USD millions			337.4

#### MIDDLE EAST/N. AFRICA

5.9

28.5

146.4

6.1	Mozambique	4.0	Algeria	
45	Nigeria	4.1	Jordan	
1.3	Rwanda	9.0	Tunisia	
4.0	Senegal	2.2		
6.6	Sierra Leona	12.2		
4.9	South Africa	3.8		
20.4	Tanzania	125.5		
9.4	Togo	0.4		
10.5	Uganda	40.5		
8.2	Zambia	19.3		
		337.4	USD millions	

#### **EUROPE/CENTRAL ASIA**

USD millions

... ..... ...

Armenia	12.4
Azerbaijan	58.9
Georgia	27.7
Kazakhstan	22.1
Kyrgyzstan	21.6
Mongolia	5.8
Serbia	25.1
Tajikistan	37.5
Uzbekistan	170.9

382.0

#### ASIA

.....

Bangladesh	5.0
India	42.5
Indonesia	35.4
Myanmar	0.1
Philippines	7.6
Vietnam	122.7
USD millions	213.3

\$213.3M

.....

# Contributing to development impact is rooted in everything we do at TCX.



#### Letter from the CEO

s a development finance initiative, contributing to development impact is rooted in everything we do at TCX. At the core of this is taking away currency risk from vulnerable borrowers in developing countries. This improves financial resilience and debt sustainability—an issue that has dominated headlines in 2022 and 2023 year to date.

Another means through which we achieve impact is by stimulating local capital market development. We encourage international investors to dip their toes in frontier currency markets by buying some of the risk in certain currencies from our books. Getting investors comfortable with exposure to such currencies is a very important step towards the development of off-shore local currency markets.

Underpinning all of this is our core belief that the development finance community can do better. Offloading currency risk to borrowers has been the standard practice in development finance since the first World Bank financing—a USD 250 million loan— to France in 1947. The 3.5% interest rate turned out to be almost 30% in French franc, the currency that was relevant for the borrower. The first 'soft' loan had hard consequences.

Not much has changed since then. USD lending and—to this day— burdening the most vulnerable countries with currency risk is still the norm. Our advocacy addresses this flaw. We are glad to see that our message of making (indexed) local currency financing the de-facto practice, is increasingly recognized. In parallel, our impact and the volumes we hedge continue to grow, despite economic crises.

But how do we measure this impact? After all, TCX does not provide financing itself but acts as a counterpart to development finance institutions in hedging their hard currency loans.

This report highlights our triple-impact story. First, we report on the specificities of our hedging activities in 2022, for example, what sectors and countries we reached. We also assign a score to every hedge based on the challenging nature of the currency and tenor combination. Second, we report on the anticipated development impact of the underlying loans that we hedge—our indirect impact. And last but not least, the data is supported by stories of impact for borrowers on the ground and spotlighting our advocacy impact.

I welcome the global momentum to increase the share of (indexed) local currency financing to low-income countries. But we have to move from talking to action. TCX has and will have an increasingly important role to play. We are a growing institution with tremendous impact and further growth potential. I am looking forward, now more than ever, to steer TCX and co-create the future of local currency finance, together with you, our partners in impact.

#### **Development Impact Reporting Approach**

TCX generates development impact by protecting borrowers in emerging and frontier markets from financial volatility emanating from currency risk. We offer currency risk solutions—cross-currency swaps and forwards— that essentially convert hard currency development lending into lending linked to the local currency<sup>1</sup>. This way, borrowers still receive hard currency but are not impacted by movements in the exchange rate. Their debt service repayments become stable and predictable.

As a development finance initiative, TCX pursues maximum development impact and does not compete with commercial banks. We are active in currencies, tenors and sizes where commercial alternatives are absent or inadequate.



<sup>1</sup> Also called an 'indexed' local currency, or synthetic local currency, is hedged hard currency financing. This means that borrowers receive hard currency but all of the loan repayments are indexed to the local currency, making repayments predictable and unimpacted by fluctuations in the exchange rate.



We mobilize the private sector and support capital market development.

TCX hedges lending to private and public sector borrowers in developing countries that undertake activities which generate impact and contribute to the UN Sustainable Development Goals (SDGs). We improve the financial resilience of borrowers and projects.

In addition to TCX's core activity of de-risking lending, we are also able to transfer a significant part of the currency exposure to private investors. This mobilizes the private sector and contributes to off-shore capital market development. The practice of removing the currency risk from borrowers and shifting it to private markets enhances the sustainability, transparency and efficiency of development finance.

Increasing the overall adoption of local currency financing in the development finance ecosystem is fundamental to improve debt sustainability and financial resilience. TCX is a strong advocate for changing the traditional practice of hard currency lending and educating borrowers about the dangers of currency risk. This requires a shift in mentality and strong mandates from donors, policy setters, and senior leadership of international financial institutions. Our advocacy and thought leadership activities contribute to increased awareness and understanding on a global level.

# De-Risk

# Develop & Mobilize



#### **Development Impact Pillars**

These three activities (de-risking loans, reallocating currency risk, and advocacy) are the cornerstones of our development impact framework. We report the impact of the following three pillars.

#### De-risking development finance

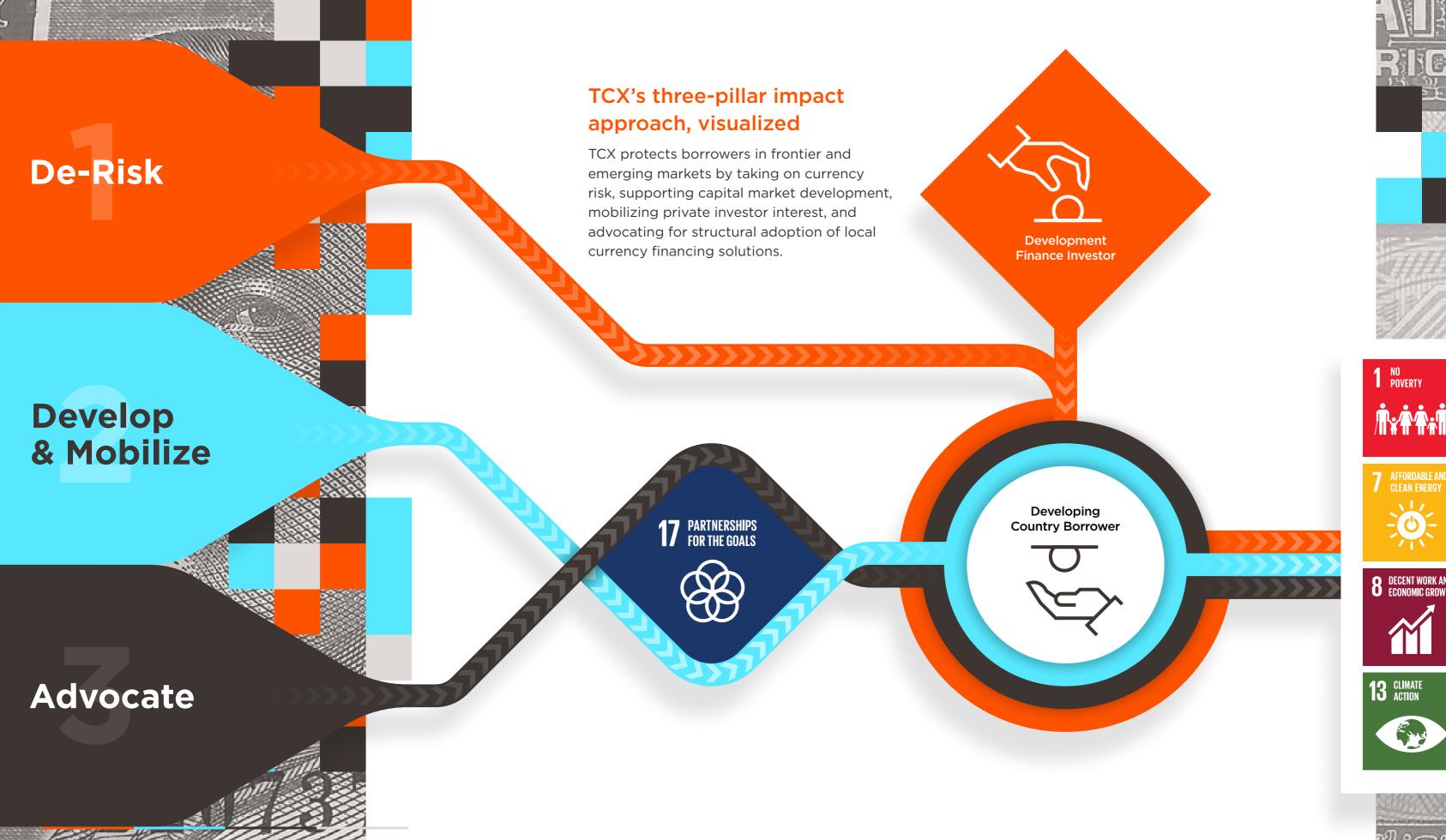
TCX absorbs the currency risk of hard currency loans to emerging and frontier market borrowers. This increases the risk-resilience of impact generated by these investments and their corresponding contribution to the SDGs.

### Supporting capital market development and mobilizing the private sector

TCX shifts part of the currency risk it takes on its balance sheet to private participants in the international financial markets. Building partnerships with development finance institutions and connecting commercial investors with frontier markets generates lasting capital market development.

### Advocating for local currency finance and currency risk protection

TCX plays a crucial role in advocating for large-scale adoption of local currency finance and hedging. The local currency ecosystem expands through partnerships with international institutions, policy setters, donors, and local parties in developing countries.





#### **Impact Measurement**

TCX measures its expected impact through a set of defined indicators, which are set out for each of the three pillars in the graphic on the right. Featured case studies, interviews and stories of borrowers further amplify TCX's reach and development impact.

Key impact indicators are the volumes of new hedges across regions and sectors, as well as their additionality, reported for pillars 1 and 2. We measure our additionality through the Difficulty of Hedge indicator (see below).

It is less straightforward to report quantitative data on TCX's advocacy and leadership activities. Our efforts to increase local currency financing and currency risk awareness indirectly feed into volumes that we hedge. Nevertheless, the indicators presented for pillar 3 give an indication of how TCX's currency portfolio develops and TCX's ability to develop pricing models for the most challenging currencies, even when there is no market data available.

### De-Risk

#### De-risking Development Finance

#### INDICATOR 1

Volume of new transactions by geography and sector

#### INDICATOR 2

Difficulty of Hedge score of new transactions

#### INDICATOR 3

Joint Impact Model estimates of underlying impact

## Develop & Mobilize

### Developing Markets

#### **INDICATOR 1**

Volume of new transactions by geography

#### **INDICATOR 2**

Number of new local currency bond issues

#### INDICATOR 3

Difficulty of Hedge score of new local currency bond issues

### Advocate

#### Increasing Awareness

#### **INDICATOR 1**

Number of currencies in portfolio

#### INDICATOR 2

Number of currencies with no market data, for which a pricing model has been developed

#### **Difficulty of Hedge indicator**

TCX operates on the principle of additionality, meaning that we provide local currency solutions for those currencies, tenors and sizes where commercial alternative are absent or inadequate. We measure this additionality principle by assigning a score (ranging from 2 to 10) to each of TCX's hedges based on the level of difficulty for hedging the specific currency and tenor combination in the market. For example, a hedge for a transaction in a low-income country, such as Sierra Leone, has an average DoH of 8.8 whereas a similar transaction in Indonesia—which has better developed financial markets—has a

DoH of 2.0. The higher the score, the more difficult to hedge that transaction in the market for a highly creditworthy institution.

The score does not take into account the counterparty additionality. Even if certain currency-tenor combinations are available in the derivative market, these may only be accessible for larger institutions with a high credit rating. For such instances, TCX's additionality is derived from offering derivatives to institutions with no access to commercial banks.





AFFORDABLE AND CLEAN ENERGY



TCX has a strategic focus on

developing local currency climate
finance and targets to support

Loans hedged by TCX support

employment creation and the
economy's GDP through salaries,

profits and taxes.

#### TCX and the UN SDGs

TCX also reports to some extent on the expected development impact from the loans that are hedged. We classify this as indirectly derived impact. The corresponding impact indicators, tracked by development finance institutions, support nearly all SDGs. We use the Joint Impact Model to estimate the expected development impact of the underlying loans and have selected those SDGs that are the common denominator across the portfolio of loans that we hedged in 2022.

TCX contributes to financial resilience of financial institutions and their micro- and SME clients, and helps facilitate access to reliable finance for households and small businesses.

10 REDUCED INEQUALITIES



TCX provides solutions to currency risk for emerging and frontier markets, including for the least developed countries.

17 PARTNERSHIPS FOR THE GOALS



TCX was established as the result of a global partnership among donor governments, development finance institutions and impact investors. This partnership is enforced and extended through our market-making activities, involving commercial banks and investors, and our advocacy efforts.

lending towards renewable energy

projects.



# 2022 Impact Results

De-risking Development Finance

#### **INDICATOR 1**

### 2022 hedging volumes by region, country-income class and sector

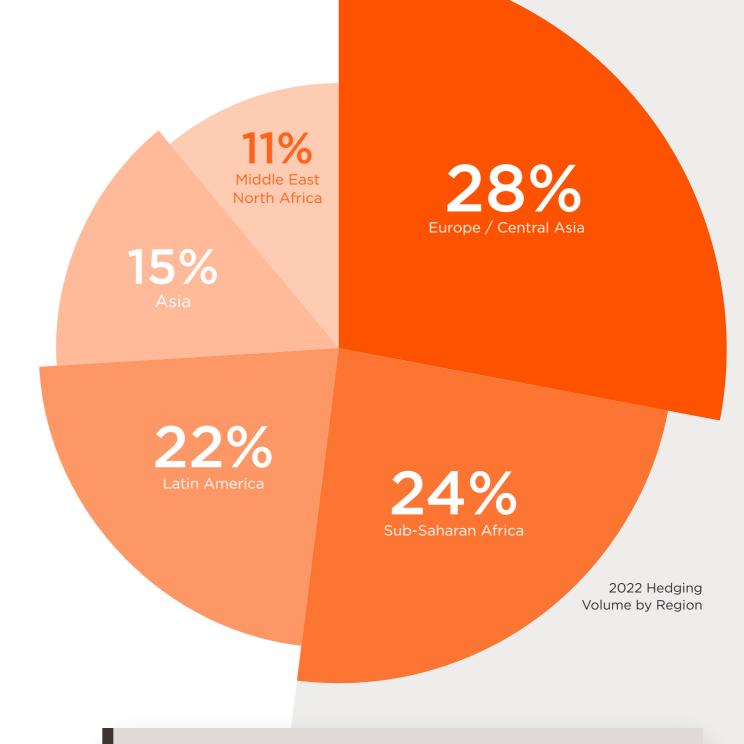
In 2022, TCX removed currency risk from **USD 1.38 billion** of new development finance loans to emerging and frontier countries across 43 currencies in 428 transactions. This is a slight increase from 2021.

Similar to 2021, Europe and Central Asia benefited the most from TCX's hedging activities, despite a significant decrease in volumes from USD 584 million in 2021 to USD 382 million in 2022. This was largely due to a decrease in indexed local currency lending by development finance institutions to the region.

TCX hedged over USD 330 million of financing to Sub-Saharan Africa in 20 different currencies, with over 60% going to Tanzania, Botswana and Uganda. This was primarily driven by transactions to provide local currency to micro, small and medium-sized enterprises.

Activities in Latin America and the Middle East/North Africa increased significantly, in particular for Guatemala, Dominican Republic, Peru and Algeria. Notably, we hedged financing to Jamaica and Bangladesh after a few years of inactivity in these countries.

TCX is additional to the market and only de-risks financing to benefit countries on the OECD DAC List of ODA Recipients<sup>2</sup>. We also follow this list to classify countries based on income class, ranging from least developed to upper-middle income countries.



#### **TCX** and Ukraine

We remain committed to supporting our shareholders and other development finance institutions as they help finance critical government services and reconstruction efforts in Ukraine. As a development finance initiative, TCX is available to provide risk-reflective pricing for hedging new and existing hard currency financing to Ukraine.

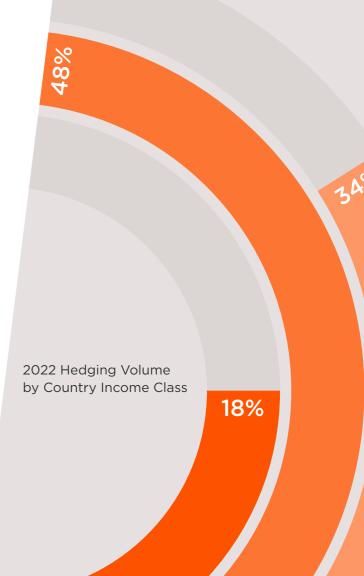
<sup>2</sup> www.oecd.org/dac/financing-sustainable-development/development-finance-standards/daclist.html

De-risking Development Finance

In 2022, TCX enabled local currency financing to 13 least developed countries for a total volume of close to USD 250 million. This represents 18% of total financing de-risked during the year. Practically all went to Sub-Saharan African countries, with around 50% going to Tanzania, and USD 5 million to Bangladesh.

The largest share of hedges (48%) in 2022 benefited lower middle-income countries, with most financing going to Uzbekistan, followed by Vietnam and Algeria. TCX's activities in upper middle income countries increased significantly compared to the year prior, driven by increased financing to Guatemala, the Dominican Republic, Azerbaijan and Botswana.

Financial institutions received the majority of financing hedged by TCX, representing 85% of volume in 2022. This enabled them to on-lend in local currency to micro, small and medium enterprises. The year was characterized by a recovery of activities in the sector post-COVID, while balancing the increase of rates globally (leading to higher US dollar costs) and the need for more external financing. Government subsidies to bring down the costs of hedging for lending to financial institutions in Africa, such as in Tunisia, helped to materialize some of the transactions.



**Least Developed Countries** 

**Lower Middle Income Countries** 

**Upper Middle Income Countries** 

De-risking Development Finance

Activities in the energy sector, especially in Sub-Saharan Africa, continue to grow, albeit with small steps. TCX hedged 22 transactions for a total of USD 64 million that will fund renewable energy and energy efficiency projects in countries such as Sierra Leone, Tanzania, Kenya, Peru and Colombia (see case studies on pages 18 and 32).

TCX de-risked the first loans to sovereign borrowers in 2022.

Whereas TCX has traditionally de-risked financing to borrowers in the private sector only, we are increasingly active helping sovereign lenders and Debt Management Offices build financial resilience and sustainability of external debt portfolios. This led to TCX's first sovereign hedges for the governments of Uzbekistan<sup>3</sup> and Jamaica in 2022.

Increasing our development impact and building financial resilience of sovereign borrowers and climate projects is of strategic importance to TCX. We work towards significantly reducing currency risk in lending to sovereigns and in climate investments. This will positively impact debt sustainability of countries and reduce financing costs of climate projects.

3 www.ebrd.com/news/2022/ebrd-and-uzbekistan-enter-first-crosscurrency-swap-.html

2022 Hedging Volume by Sector

#### Climate financing in local currency

The Report of the Independent High-Level Expert Group on Climate Finance (2022)<sup>4</sup> estimates that about half of all climate finance will have to be sourced externally. This exposes borrowers in developing countries to currency risk and drives financing costs of climate projects. Hence, minimizing currency risk exposure and developing a currency hedging strategy from the early stages of project development will be essential to improve affordability.

Domestic capital markets in many low-income countries are not (sufficiently) developed to provide adequate local currency financing. However, hedging is an immediate solution to currency risk in climate investments. Derivatives are accessible through commercial banks in more liquid markets and through TCX for the most challenging currencies and tenors.

2%
SOVEREIGN

2%
NUFACTURING

5%

6%
THER SECTORS

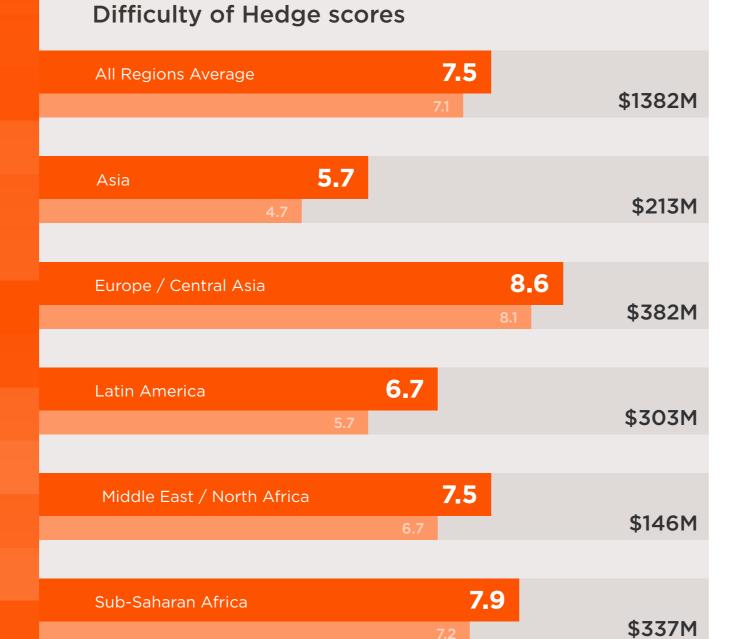
15%

27%
ME FINANCE

43%

4 Finance for Climate Action: Scaling up investment for climate and development (November 2022).

De-risking Development Finance



Difficulty of Hedge: 2022 2021

#### **INDICATOR 2**

#### 2022 'Difficulty of Hedge'

The average Difficulty of Hedge score of 2022 derivative transactions was 7.5 out of 10, up from 7 in 2021. This score reflects the additionality principle of TCX's presence in the market and the challenging nature of hedging transactions with certain currency and tenor combinations.

The Difficulty of Hedge increased across all regions in 2022 versus 2021, especially in Asia and Latin America. This was driven by more challenging hedges for countries such as Vietnam, the Dominican Republic and Jamaica. At the same time, the Difficulty of Hedge for Asia remained subdued since transactions in Indonesia, India and the Philippines—which have relatively more accessible currencies in the market—accounted for a significant share (around 40%) of total volume in the region.

In Sub-Saharan Africa, hedges for Botswana, Burkina Faso, Cameroon, Senegal, Mali and Togo particularly increased the Difficulty of Hedge. Around 28% of total volume in the region went to countries with more developed markets (Kenya, Ghana, Nigeria, South Africa, Uganda and Zambia), bringing down the score.

Transactions for Europe and Central Asia continue to have a high average Difficulty of Hedge due to the combination of challenging currencies, relatively large transaction volumes, and longer tenors.

TCX IMPACT REPORT 2022

Hedging Volume 2022 (USD Millions)

De-risking Development Finance

#### **INDICATOR 3**

#### Indirect development impact of hedged transactions

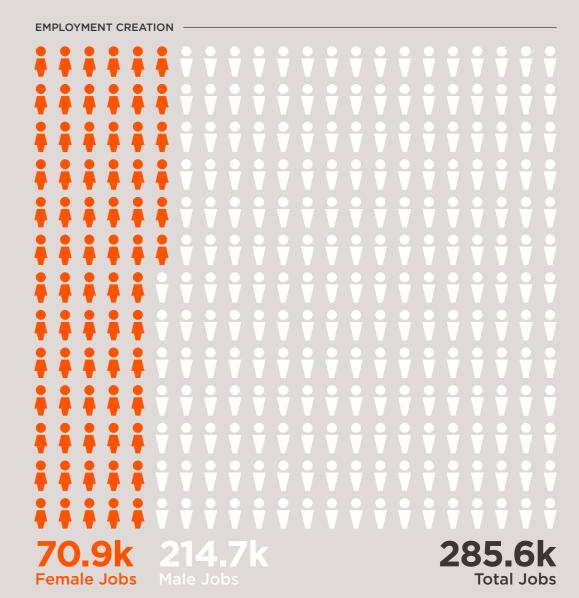
TCX estimates the anticipated development impact of loans that are hedged. The impact is ultimately attributable to the lenders who measure and report on the projects in line with their own ESG policies. In essence, TCX contributes to the financial resilience of the borrower and project as we remove the consequences of currency volatility.

TCX uses the **Joint Impact Model (JIM)**<sup>5</sup> to estimate the anticipated development impact in a consistent and comparable way across all lenders that we work with. The model estimates the indirect impact of a portfolio of investments in developing countries in a single year, using input data such as the sector, country, and investment amount. The full methodology can be found <a href="here">here</a>. The JIM is developed by Steward Redqueen in coordination with the BII, FMO, BIO, Proparco, AfDB, and FinDev Canada.

TCX applies the JIM to estimate, on an ex-ante basis, the anticipated impact of the USD 1.38 billion of financing flows for which we provided hedging solutions in 2022.

Note that the results are calculated using economic modelling and do not represent actual figures. They are estimates and should be interpreted as such.

### Indirect anticipated development impact of loans hedged by TCX 2022<sup>6</sup>



VALUE ADDED

**\$392.3M** Profit

**\$147.9**M Taxes

**\$368.8M** Wages

6 Due to outlying results, figures for Madagascar and Tanzania were re-estimated by calculating the Africa average plus two standards deviations.

5 www.jointimpactmodel.org



### How local currency financing helps expand access to energy in Sierra Leone



As a small country with a relatively difficult market, Sierra Leone lacked investments to improve access to energy across the country, especially in rural areas. This changed in 2016 when Easy Solar was set up and started offering solar solutions, such as lanterns and larger standalone solar systems, to businesses and households across the country. With assets in local currency and debt offered in US dollars (USD), severe exposure to currency risk was looming around the corner. But by making prudent borrowing choices and hedging against this risk, Easy Solar built its resilience and has grown a financially sustainable venture despite sharp depreciations of the local currency, the Leone. Today, the company brings energy access to over a million people in Sierra Leone and has created over a thousand direct jobs.

Sierra Leone has a relatively small population but a very large share of Sierra Leoneans still lives without access to reliable energy. Easy Solar identified this critical gap in the market as both a business opportunity and a chance to make a significant social impact. At the same time, they realized that many of their potential customers lacked access to capital to purchase high-quality solar products. Easy Solar thus started providing financing options to their customers which enabled them to purchase solar products while repaying over time. In a country where mobile money is not widespread, the company also established an extensive agent network for the collection of physical cash repayments, with transactions conducted In the local currency (the Leone).

A big challenge for operating in countries such as Sierra Leone is currency fluctuation. Like Easy Solar, companies often purchase their goods in USD and sell them at a price in local currency. The result is a balance sheet with receivables in local currency but liabilities in USD. Leaving this currency mismatch unhedged introduces unpredictability and can have severe financial implications should the local currency depreciate. In that case, companies have to bring more local currency to the table to service USD loan repayments.

Easy Solar did not want to gamble on the movements of the Leone and put all of their hard work on the line. When presented their first loan options in 2016, they picked the local currency financing package without hesitation. Even though it visually carried a higher nominal interest rate than the USD loan, Easy Solar understood that it brings the advantage of not carrying any currency risk. The fact that they were conscious of this and took practical steps to avoid currency risk exposure helped them attract investors early on.

As Easy Solar grew, however, it needed to tap into other sources of financing. It turned to crowdfunding platforms, despite their limitations—they only offered loans in USD. Easy Solar took on the currency risk but focused on finding a way to replace the USD crowdfunding loans later on. When Easy Solar started talking with Lion's Head in 2021, they wanted to tap into the Energy Inclusion Facility's Off-Grid Energy Access Fund (OGEF) to refinance the loans. This is where TCX stepped in. The Fund hedged a USD 5

million loan to Easy Solar provided by OGEF, indexing the loan to the Leone and essentially turning a USD loan into a local currency one. This approach ensures that currency fluctuations won't affect Easy Solar's loan service repayments.

This turned out to be a lifesaver for Easy Solar. Soon after signing the deal, the Leone started depreciating massively and lost over 60% of its value in 2022 alone. If Easy Solar had not had debt in local currency, they would have either had to raise a lot more equity to compensate for the losses, which is very difficult in the current context, or even shut the company down altogether. If the depreciation trend continues at the current pace, the cheap-looking USD loan would have resulted in increased debt service costs of 180% in Leone terms. Lucky for Easy Solar, by choosing a local currency-denominated loan, the loan obligations are fixed and unaffected by the depreciation of the Leone.

Hedging puts a price on a real risk for distributed energy providers in Sub-Saharan Africa. Easy Solar factored in the price of local currency financing or hedging into their business plan and this has helped them develop a financially sustainable venture. This is important to all borrowers in emerging and frontier markets who generate revenues in local currency but receive funding in hard currency.

Nevertheless, the cost of financing can have a considerable impact on the pricing for end consumers. One of the best ways that donors and development finance lenders can help the renewable energy sector is by subsidizing the costs of local currency financing and hedging. This will be especially impactful for borrowers in smaller, vulnerable countries, such as Sierra Leone. Expanding access to local currency financing or hedging mechanisms will accelerate development impact of the sector.

By hedging USD loans into local currency, Easy Solar can provide more households with access to energy without having to bear currency risk. Today, the company has created around a thousand direct jobs and has reached more than a million people, bringing some form of access to energy to about 15% of the population.

This impact story was developed based on an interview with Alexandre Tourre, CEO of Easy Solar.

Alexandre Tourrel

"The distributed energy sector needs to stop hoping for currency stability and start pricing in the cost of local currency finance into this model. Ignoring this issue means that the conversations we're having about affordability and subsidies as a sector, with donors and governments, are fundamentally flawed.

Subsidizing the costs of local currency swaps and financing remains one of the best, yet least used, ways to support the rapid and sustainable growth of the sector in difficult markets in Sub-Saharan Africa. It can be a real game changer."



CEO, EASY SOLAR

Supporting Capital Market Development

By hedging development finance loans, TCX takes on its balance sheet the risk of a wide variety of currencies and manages the exposure for the duration of the loans. Over the years, we learned that there is growing interest from private investors in frontier currency risk and return, predominantly coming from pension funds, family offices and other smaller asset managers. Given credit risk concerns, these investors currently refrain from buying local currency assets in the domestic markets. TCX fills this market gap in a unique way by transferring some of its own currency risk exposure. We do this primarily by hedging local currency bonds issued by triple A-rated development finance institutions—a 'market creation' activity in support of local capital market development (see box 3). The other method we use is by direct risk transfers to commercial parties.

Up until 2022, TCX hedged a total volume of close to USD 1.8 billion equivalent in frontier currency bonds issued by the Fund's AAA and AA-rated development finance shareholders, such as IFC. EBRD and FMO.

2017

2018

#### An innovative package deal: frontier currency risk and AAA credit risk

400

20

TCX mobilizes private investor interest for frontier currencies by structuring and hedging off-shore local currency bonds issued by its triple-A rated shareholders. These bonds are linked to frontier currencies and settled in USD or EUR. We most often identify the buyers, connect them with the issuer and hedge the issuer's local currency bond into regular USD or EUR funding. The investor gets frontier currency exposure and corresponding yields but triple-A credit risk exposure, the issuer obtains funding at attractive costs, and TCX offsets some of its risk in specific currencies, allowing it to de-risk more loans with a similar capital base. Importantly, these type of bond issuances contribute to local capital market development and the creation of a fixed income local currency curve.

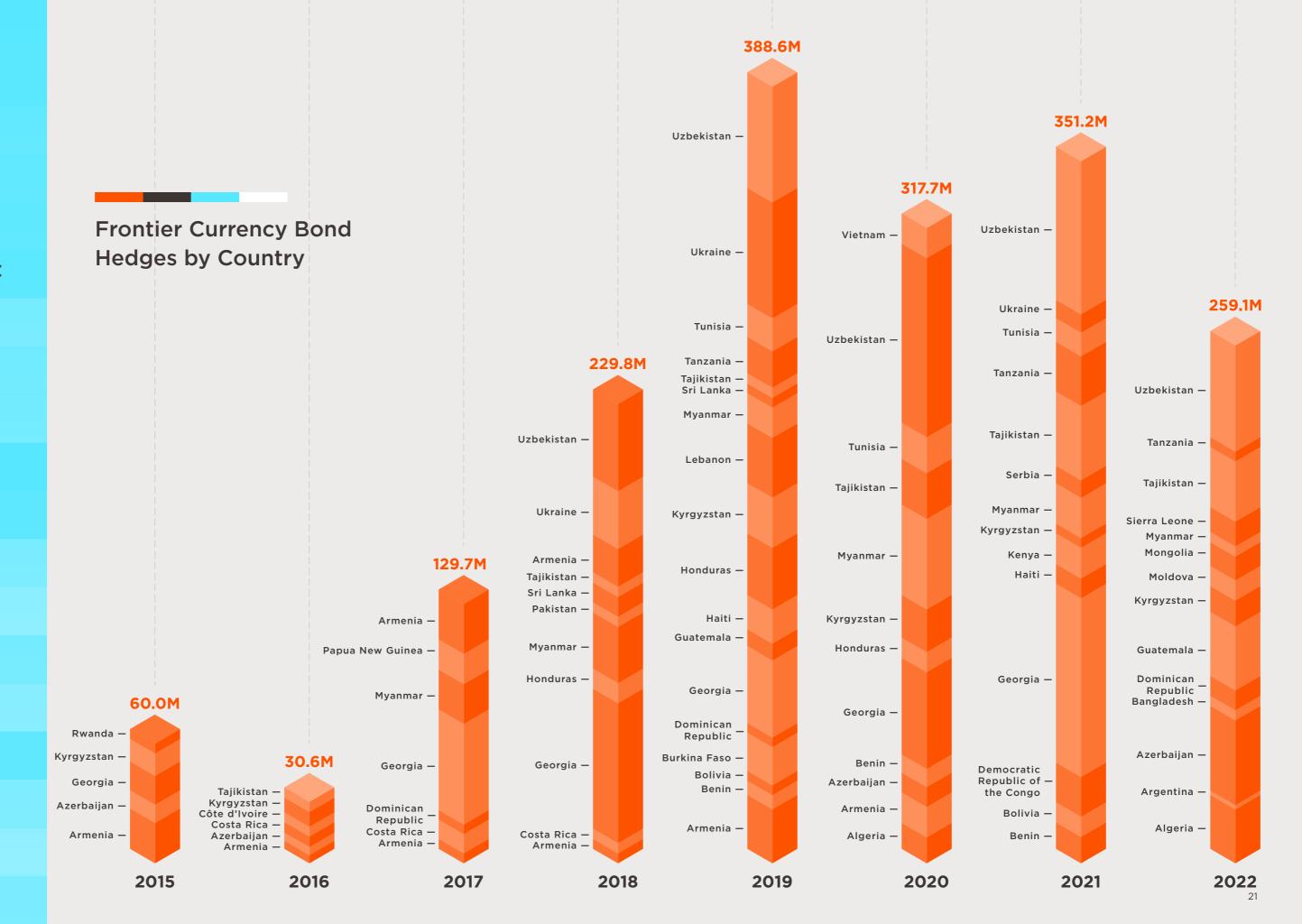
Frontier Currency Bond Hedges by Volume (USD Millions)

2016

TCX IMPACT REPORT 2022

2019 2020 2021

Supporting Capital Market Development



14%
Least Developed
Countries

54%

Lower Middle
Income Countries

32%
Upper Middle

22

### PILLAR 2

Supporting Capital Market Development

#### **INDICATOR 1**

#### 2022 hedging volumes of currency risk on-selling

In 2022, TCX transferred USD 568 million of currency risk from its balance sheet to capital market investors. Over USD 259 million of this was sold by means of hedging local currency bond issuances of development finance institutions. The economic tumult induced by the Ukraine war reduced TCX's ability to offset currency risk in some countries, leading to a smaller volume of risk transfers in 2022 versus the year prior. Still, the market returned to expected levels in late 2022. In fact, early 2023, TCX reached a milestone by hedging the 200th bond issuance since 2013, for a total volume of over USD 2 billion equivalent.

The data reported in this section refers to all risk on-selling activities of TCX in 2022 for a total of USD 568 million.

50% was in European/Central Asian currencies, mostly in the currencies of Uzbekistan, Georgia and Azerbaijan. This region has provided the most opportunities for TCX to support market creation, in a large part because of the fact that this is also the region where we hedged most lending in 2022.

Compared to 7% the year prior, TCX grew its activities in the Middle East/ North Africa to 19%. Contributing to this are the hedges of two off-shore local currency bonds issued by two of TCX's shareholders in Algerian dinar. In Latin America, we transferred over USD 75 million equivalent in risk in the currencies of Guatemala, Dominican Republic, Argentina, Peru, and Honduras to commercial investors. Activities in Sub-Saharan Africa declined from 26% in 2021 to 12% in 2022. Noteworthy is a transaction in Sierra Leone, where TCX hedged an indexed bond issued in the Sierra Leonean leone (USD 7.5 million equivalent) by FMO—the first-ever in the market.. Prior to the transaction, TCX had hedged loans for renewable energy investments in Sierra Leone (see case study on page 18), taking on the currency risk on its books. By then hedging the local currency bond, TCX was able to reduce its exposure to Sierra Leone risk, allowing the Fund to support more local currency lending in leone to energy clients. The bond helps to mobilize international investors into fragile markets such as Sierra Leone, which is important to reduce the reliance of local borrowers on the USD. Please read more about the bond issuance in the press release.

TCX contributed the most to market development activities in lower-middle income countries. This was driven by risk off-setting in the currencies of Uzbekistan (USD 116 million equivalent), followed by Algeria and Tunisia. In the least developed countries, TCX transferred close to USD 80 million in risk, including through hedges of indexed bond issuances in the currencies of Tanzania, Sierra Leone, Benin, Bangladesh, and Myanmar.

Asia 6% 2022 Hedging Volume by Region

Europe / Central Asia 50%

Latin America 139

Middle East / North Africa 19%

TCX IMPACT REPORT 2022
Sub-Saharan Africa 12%

Supporting Capital Market Development



Difficulty of Hedge: 2022 2021

#### INDICATOR 2

#### 2022 hedging volumes of currency risk on-selling

Similar to pillar 1 activities, TCX measures the additionality of its market development transactions through the "Difficulty of Hedge" score.

The average difficulty of hedge for new market development transactions decreased slightly from 7.8 in 2021 to 7.6 in 2022. Most notably, risk transfers in the currencies of Sierra Leone, Benin and Tanzania drove an increase of the score for Sub-Saharan Africa versus 2021. The score for Europe/Central Asia remained relatively stable, mostly driven by risk transfers in the currencies of Uzbekistan, Georgia, and Azerbaijan. Scores for the other regions decreased versus the year prior due to a pickup in volumes in currencies and tenors that are relatively less challenging.

USD 259 million out of the total USD 568 million in market development transactions originated by hedging off-shore local currency bond issuances. These hedges have, on average, higher additionality compared to direct risk transfers because of the typical longer tenors for bond issuances.

TCX IMPACT REPORT 2022

Hedging Volume 2022 (USD Millions)



#### A one-on-one with the Debt Management Office of Georgia

Local currency depreciations versus the US dollar (USD) have given rise to severe sovereign debt sustainability issues, particularly for the least developed countries that rely heavily on external debt in USD. Sovereign debt managements offices (DMOs) face the consequences of currency risk when they suddenly have to pay more of their local currency to service this debt. Unfortunately, the results of a recent IMF survey show that many DMOs in developing countries lack the capacity to quantify and manage currency risk in their debt portfolios. Technical assistance (TA) is fundamental to overcome this gap and help sovereigns make well-considered decisions in their borrowing choices.

TCX signed a Memorandum of Understanding with the Ministry of Finance of Georgia in 2022 to help build their capacities to properly manage currency risk. Georgia participates in the Fund's first pilot TA program that commenced in May 2023. TCX's Sophie Peeters spoke with Mirza Gelashvili, Deputy Minister of Finance, about the TA program and how it helps the DMO in their journey towards decreasing exposure to currency risk.

### Why is it important to you to reduce currency risk from Georgia's debt portfolio?

Currency risk is a factor that we cannot control. It is exogenous and gives unnecessary and unwelcome volatility in our fiscal policy, government budget and debt management. A depreciating currency puts additional pressure on our debt service, accelerates external shocks and has an overall negative effect on the efficiency of our debt management. During the pandemic, for example, the Georgian lari depreciated and it had a classic accelerator effect on the rest of the economy, impacting government yields which is the benchmark for the private sector in the country. By reducing our exposure to currency risk, our fiscal policy will be more predictable and manageable.

### How does the government address the consequences of currency risk on budgets and capital market development?

In practice, we put reserves aside to accommodate fluctuations in debt service costs. We basically just reserve more money and hope for the best when it comes to exchange rate movements. This is complicated and makes it impossible to efficiently manage Georgia's budgets and fiscal policy. Hedging currency risk from our external borrowings would remove this problem. To the Ministry of Finance, currency risk is not just an operational risk management problem, it's a macroeconomic problem.

### How does the TA program help with your strategy to decrease currency risk exposure?

When we started the process of identifying risks for the DMO, we found that our high levels of dollarization is the biggest risk. At the same time, our general risk management is not developed enough. We need more resources and capacity to identify risk and make quantitative-based decisions in our debt management process, from issuing debt to managing the portfolio. Many donors are providing training, including the IMF, but it is more focused on the macro part of debt management and debt sustainability analysis. TCX is filling a gap because their TA is focused on the practical and operational process of handling currency risk in debt management. It is targeted and flexible, customized to the needs of our DMO.

# What can the international development finance community do to encourage low and lower-middle income countries to borrow responsibly and limit currency risk exposure?

A country typically ends up with high currency risk exposure in debt portfolios at the development stage, when the country's savings are limited and needs more international resources. The easiest way is to attract USD development financing at very low, concessional rates, but DMO capacities are not good enough to assess all the different dimensions that come with it. When Georgia started borrowing from international financial institutions (IFIs), there was no electricity, poor infrastructure, etc. so they played an important role to get to where the country is today. We are privileged to think about operational risk management issues now. However, I do believe that IFIs and donors should help build the capacities of DMOs from the early stages of development financing and help them analyze and understand all the risks associated with external borrowings. Even in the weakest, underdeveloped capital markets there is some room for hedging possibilities, thanks to TCX.



#### What would you advise other DMOs?

I would advise them to identify options to balance their exposure to currency risk, preferably from the early stage of their development, and proactively bring this up with IFIs. Right now, many are spending significant amounts of their budgets on USD debt service. I understand that it is not possible to depend on local financing and savings alone, but they should explore possibilities to make use of the concessional IFI financing and hedge the exposure to currency risk. It will likely not be possible to hedge the whole debt portfolio but some of it is definitely a possibility.

We welcome inquiries from donors, lenders and DMOs regarding technical assistance. Please contact Harald Hirschhofer for questions.

Advocating for Local Currency Finance

2022 was a year with significant momentum for TCX's advocacy efforts. Severe debt sustainability issues in low-income countries have increased the world's attention for the dangers posed by currency risk. In the context of high-level policy discussions related to climate finance and, more generally, SDG finance, currency risk has become an increasingly prevalent topic. We continuously speak with public policy makers, think-tanks, donor governments, NGOs and Development Finance Institutions (DFIs) bilaterally, but also in preparation for international events, such as for the G20 Summit, the Bridgetown Initiative, and the Summit for a New Global Financing Pact.

TCX is a strong advocate for expanding access to local currency and hedging mechanisms in development finance. Fundamentally, we believe that borrowers in emerging and frontier markets should not be the ones taking on exposure to currency risk as they are the least resilient to bear it. Multilateral and bilateral DFIs are much better positioned to manage this risk by collaborating with TCX, as it falls within their mandate to encourage sustainable economic growth.

### Our advocacy is based on clear policy proposals underpinned by TCX's 15 years of experience in currency risk management:

- DFIs should always offer borrowers—both public and private sector— a choice to borrow in their local currency or in indexed local currency.

  This requires a strong mandate from the government owners and senior management of DFIs. International best practice is the inclusion of a 'conversion clause', allowing the borrower to convert a hard currency loan into an (indexed) local currency loan. This supports active risk management by the borrower.
- Donors should encourage prudent, sustainable borrowing. Borrowers tend to make myopic decisions and accept long-term currency risk to reduce upfront interest rate costs. They need stronger incentives to make prudent and sustainable borrowing decisions. Donors can consider redeploying grants from subsidizing the credit margin of hard currency loans to reducing the costs of local currency loans.
- Borrowers, especially sovereign debt management offices, should build internal capacity to be able to assess and manage currency risk. Donors, policy setters and DFIs have a critical role to play here by expanding the scope of ongoing technical assistance and establishing guidance about best practices in the area of currency risk management.

TCX believes in the long-term benefits of creating currency risk markets where currency risk is efficiently managed and with significant private sector mobilization.

7 Indexed local currency, or synthetic local currency, is hedged hard currency financing. This means that borrowers receive hard currency but all of the loan repayments are indexed to the local currency, making repayments predictable and unimpacted by fluctuations in the exchange rate.

**2022 ADVOCACY HIGHLIGHTS** 

dialogue: media and publications

Raising awareness and contributing to the public policy

TCX authored standalone reports and numerous op-eds and articles in English, Dutch and French that were published by local and global news outlets, such as the Financial Times. These are written with the goal to promote thought leadership around local currency finance

across sectors and regions, and to encourage policy action.

Advocating for Local Currency Finance





**Soft Loans Have Dire** 

**Countries (in Dutch)** 

FINANCIEEL DAGBLAD

(part I)

FINANCIAL TIMES

Consequences for African

It's The Currency, Stupid



fd.







April 2022 October 2022 **TCX: Protecting the Most** How To Build a Resilient **Local Currency Lending** is a Double Win: More **Vulnerable From Currency Housing Finance Ecosystem** Sustainability and Lower Risk **Through Local Currency Financing Costs** Financing IMPACT INVESTOR **Energy transition: 3 Development Banks Should** Four Ways to Make **Reform Their Lending** questions to Mohan **Development Finance** Practices Vivekanandan and Isabelle **Fairer and More Effective** Lessedjina (in French) OECD DEVELOPMENT MATTERS INTER PRESS SERVICE FORBES AFRICA It's The Currency, Stupid **Frontier Currency Fixed Green Energy Projects** Income: A Developing in Africa (part II) **Asset Class** FINANCIAL TIMES CMD PORTAL

**Advocating for Local Currency Finance** 

In 2022, TCX attracted a significant number of new followers on LinkedIn. We use this platform to broaden our reach and share relevant news articles and publications, conferences we attend and countries we visit, and to highlight noteworthy hedge transactions.

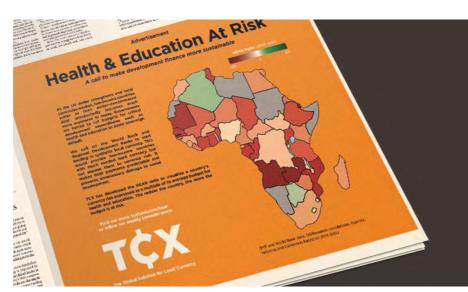




#### Making currency risk tangible: the Health and Education at Risk (HEAR) ratio

As the USD strengthens and local currencies weaken, low-income countries suffer as their dollar-denominated debt unexpectedly becomes much more expensive to repay. Governments are forced to cut budgets for critical development expenditures to avoid sovereign default. Yet, the impact of currency risk often remains an abstract concept to borrowers and international development professionals.

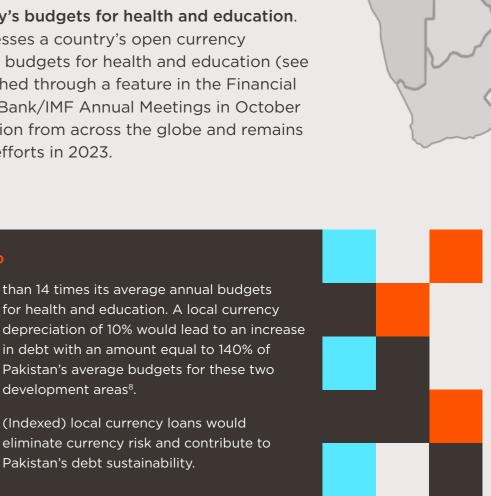
For that reason, TCX developed the HEAR ratio to illustrate the effect of a currency depreciation on a country's budgets for health and education. More specifically, a HEAR ratio expresses a country's open currency exposure as a multiple of its average budgets for health and education (see example below). The ratio was launched through a feature in the Financial Times on the occasion of the World Bank/IMF Annual Meetings in October 2022. It has gotten significant attention from across the globe and remains a powerful tool for TCX's advocacy efforts in 2023.



The Pakistani rupee lost over 21% of its value against the USD in 2022. While the country needs to recover from floods and deal with the effects of climate change, the procyclical nature of their hard currency debt evokes another crisis—a debt crisis. Every dollar that is to be repaid requires 35% more rupees.

With a ratio of -14.1, we estimate that Pakistan's open currency exposure is more for health and education. A local currency depreciation of 10% would lead to an increase in debt with an amount equal to 140% of Pakistan's average budgets for these two development areas8.

(Indexed) local currency loans would eliminate currency risk and contribute to Pakistan's debt sustainability.



8 Please refer to the webpage for more information about the methodology and sources.

**Advocating for Local Currency Finance** 

#### **Knowledge sharing** Conferences, trainings and webinars

Throughout the year, TCX organizes webinars for DFIs to share lessons learned about country-specific macro developments, opportunities for local currency finance, and trends to watch. We also provide in-person technical trainings around the mechanics of hedging for borrowers, mostly for local banks, and for lenders. Every two years, we organize the Local Currency Lab where we welcome impact investors and DFIs for a day of deep-dives into local currency-related topics.

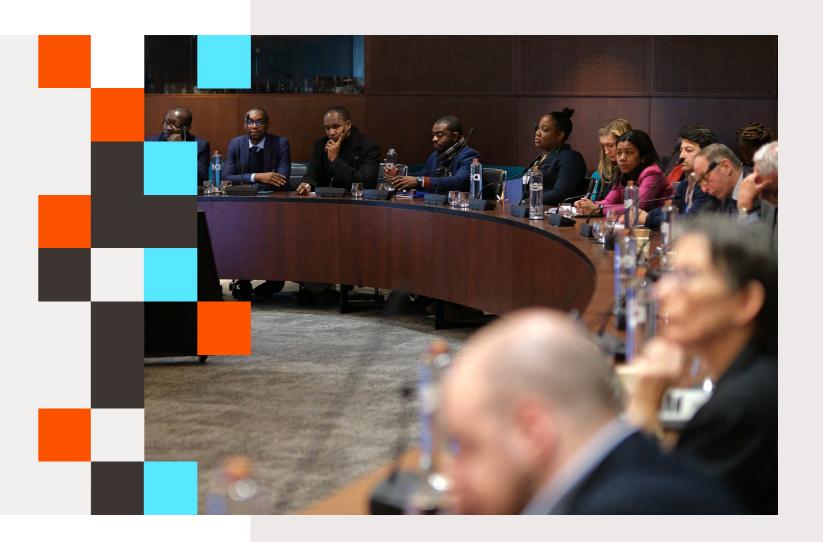
It is crucial for TCX to be a trusted partner for DFIs, DMOs, and policy setters when it comes to expanding (indexed) local currency financing for sovereign borrowers. To that end, we organized, in collaboration with the OECD, a conference around building financial resilience of low-income countries in December 2022. This was the first time that TCX organized a highlevel, policy-focused event focused on sovereigns in developing markets. In attendance were policy setters, such as the European Commission and the IMF, as well as DMOs, lenders and research organizations.







TCX co-organized a joint event with the Development Bank of Southern Africa (DBSA) and other partners at the UN General Assembly promoting sustainable financing in the energy sector, as well as an event for the UN Office of the Special Advisor on Africa advocating about the importance of local currency for debt sustainability in Africa.



Advocating for Local Currency Finance

TCX supports the IFC-Milken Institute Capital Markets Program and the IFC-Europlace-Dauphine Executive Masters in Capital Markets for Central Bank and Ministry officials from across developing countries. The goal of these programs is to equip the next generation of leaders with the skills and practical experience they need to create well-functioning domestic capital markets and increase access to long-term local currency financing. In 2022, we presented to two cohorts how currency risk in development finance affects debt sustainability and how innovative solutions such as cross-currency swaps protect against it.

### Building partnerships with academia and research/policy institutions

TCX collaborates with public policy fora, academia, and research institutions on policy exchanges and supports independent research. For example, in 2022, we initiated and supported a survey from the IMF for over 100 DMOs to get a better understanding of their currency risk management capabilities and awareness.

TCX's Othman Boukrami and Julian Carvajal presented to the 2022 cohort of the Capital Markets Program ran by IFC, Paris Europlace and Université Paris Dauphine in Paris, November 2022.



TCX's Ruurd Brouwer presented to the Fall cohort of the IFC and Milken Institute Capital Markets Program at the George Washington University in Washington, DC, October 2022.



Advocating for Local Currency Finance

#### Enhancing frontier currency market transparency

TCX shares with its DFI shareholders updates on local currency markets and pricing, such as the *Monthly Pricing Newsletter* and daily frontier market news updates.

The Frontier Index, which TCX developed in 2021, is a tool through which we increase transparency around the performance of frontier currency fixed income instruments and thereby support the growth of local capital markets. The index tracks the performance of offshore frontier currency-linked bonds issued by multilateral DFIs and offers information on these instruments as an asset class. The bonds, hedged by TCX, provide an accessible road to frontier currency exposure combined with the issuer's triple-A credit rating. At the end of 2022, the index covers 71 bonds in 21 frontier currencies.

#### INDICATOR 1

#### Number of currencies in portfolio

As at 2022 end, TCX's outstanding loan hedging portfolio constituted 54 different currencies from 59 different countries.

Since inception, the Fund has hedged in 65 different currencies in 75 different countries. In 2022, we hedged loans in 43 different currencies.

Oltimately, TCX's advocacy activities aim to increase the overall use of local currency in development finance, especially in sectors and countries where this is hardly the case—but often much needed. In the long term, the impact from our advocacy will be reflected in the impact indicators as measured by pillars 1 and 2. While TCX cannot quantify the immediate effects of advocacy efforts, we use the indicators below as proxies.

#### INDICATOR 2

### Number of currencies with no market data and for which a pricing model has been developed

By the end of 2022, TCX had developed 49 country models, 25 of which were active for pricing purposes. In 2022, models were developed for the currencies of Iraq, Tunisia and Jordan.

For those currencies where there is no market data available, TCX uses a model-based approach to determine pricing: the Forecasting and Policy Analysis System (FPAS). The FPAS is designed to use economic data in support of forward-looking monetary policy formulation. Together with OG Research, a Czech-based research consultancy specializing in yield curves for developing markets, TCX developed a module that utilizes FPAS to inform its pricing according to (macro) risks present in a given jurisdiction, even in the most frontier economies. TCX commissions OG Research to develop an FPAS for a country when we see demand for it. The number of currencies that TCX can price based on FPAS serves as an impact indicator for TCX's hedging capabilities in the most frontier markets.

11.

**PERFORMANCE** 

TCX IMPACT REPORT 2022 2020 2020

### FEATURE De-risking the green transport sector in Colombia Colombia to be in the line of the property of the

Colombia is taking steps to decarbonize its economy and has committed to achieving net zero emissions by 2050. As the second largest emitting sector in the country, decarbonizing the transport sector is fundamental and requires vast amounts of financing—often provided in US dollars (USD) by external creditors. With sharp movements in the local currency, the Colombian peso, it is pivotal to protect local borrowers from currency risk embedded in most climate-related financing. This builds financial sustainability and resilience on Colombia's way to net zero.

Colombia faces rising long-term financing demands for development purposes that are too large and expensive to be met by the government and local banks. Where the country has a relatively well-developed capital market for short-term financing, borrowers in need of long-term and sizeable debt financing turn to international investors.

Colombian borrowers are exposed to currency risk when there is a currency mismatch between the costs (financing in hard currency) and revenues (in pesos). This means that more pesos are needed to service USD debt when the peso depreciates against the USD. As a result, borrowers are confronted with a debt burden that is unpredictable and volatile. This can seriously impact their financial resilience and the financial sustainability of the development project.

The peso fell over 20% against the USD in 20229, making it one of the world's sharpest depreciations for the year.

9 www.reuters.com/article/colombia-economy-idUSL1N33J1BT

**Local Currency Finance** 

for Sustainable Energy

Until local capital markets are fully developed to provide vast amounts of capital in local currency, the derivatives markets are fundamental to protect against currency risk. TCX works with development financiers to de-risk loans to Colombian borrowers for tenors and structures not offered by commercial hedge providers (see below right).

An example is TCX's role in removing currency risk from a loan to Finanzauto, a non-banking financial institution in Colombia's car lending sector that aims to promote the transition to an energy-efficient fleet in Colombia. The company finances vehicles to self-employed workers and micro- and small business owners with limited access to traditional financing. Finanzauto earns revenues in Colombian pesos and would be exposed to currency risk if it were to receive financing from international investors in USD. In October 2022, and then in June 2023, TCX and the Global Climate Partnership Fund (GCPF), managed by responsAbility Investments AG, collaborated to hedge USD 20 million of currency risk for the USD 20 million senior loan to the company. Not only was TCX able to provide a swap with a tenor of 7 years, we also facilitated Finanzauto's request for a swap structure linked to the term Interbank Rate (IBR) but at a price comparable to the overnight IBR.

"The collaboration with TCX allows GCPF to deploy funding towards climate change mitigation efforts in a nation committed to reaching net zero emissions by 2050.

This financing bears significant potential to make a lasting impact, targeting Colombia's second largest source of CO2 emissions—the transportation sector."

**DAVID DIAZ FORMIDONI** - responsability Investments

TCX took the currency risk of the peso on its own balance sheet and, throughout the lifetime of the hedge, compensates GCPF for the additional debt service in pesos when the currency depreciates. Without our involvement, Finanzauto would have had to bear these costs itself. The hedge protects the company from unpredictable loan repayments as a result of fluctuations in the peso and improves the financial sustainability of the loan.

Please read the press release here.





Julian Carvajal
VP OF TRADING, LATIN AMERICA

"TCX is able to take on this currency risk because of our very diversified portfolio of currency exposures. We have also been able to sell some of the peso exposure to the international capital markets, mobilizing private investor interest for the currency. This allows us to take on more exposure to the peso and protect more Colombian borrowers.

A Colombian national myself, I am particularly excited about the scalability of innovative products, such as inflationlinked swaps. This is a natural fit for long-term green infrastructure projects, given that their revenues tend to be linked to consumer price inflation".

#### TCX's additionality in Colombia

Colombia's derivatives market currently offers sufficient liquidity to consistently trade fixed rate cross-currency swaps for up to 15 years and floating rate swaps up to 7 years, however liquidity varies depending on market circumstances. This is especially challenging for infrastructure financing that requires hedges with longer tenors. This is where TCX comes in and plays a highly additional role in Colombia.

Another area where TCX is additional to this market is when it comes to the local currency interest rate benchmark used. Most liquidity in the derivatives market in Colombia is concentrated on the overnight IBR, which is the market standard for banks. However, it is more complicated for their borrowers to operationally implement. Borrowers prefer the term IBR, which is less liquid but gives them more certainty and predictability in terms of interest payments. Where banks usually cannot facilitate hedges using this rate, TCX has the flexibility to adapt to the needs of the borrowers and extend the tradability of less liquid indices for longer tenors.



# Voices and Perspectives

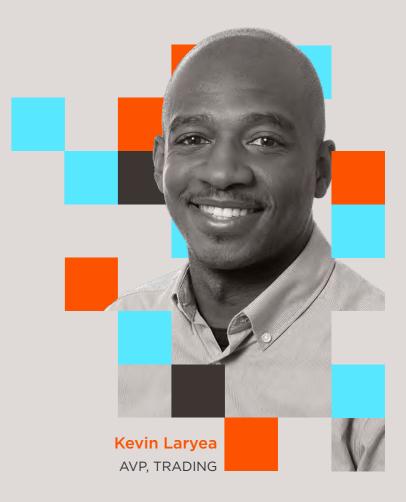
### What does the future of local currency finance hold?

TCX is a growing development finance institution based in Amsterdam, The Netherlands. We have 35 staff members from 24 different nationalities and, together, we de-risk billions of development finance flows. Eight colleagues share their views on the future of local currency finance.



"Local currency is the cornerstone of development finance. When we talk about development, we talk about serving the clients in the most vulnerable economies. Historically and more so recently, we have seen that defaults due to currency depreciation are in fact not only a risk in theory but the reality. Therefore, local currency lending is synonymous with responsible and impactful lending. However, fostering local currency funding requires collaborative action and it is a journey that we are taking with our partners to create financial stability and resilient growth. I believe the future of local currency is the future of development finance."

"African thought leaders and policymakers are increasingly realizing the drawbacks of dollar and euro dominance. Given slow but steadily increasing financial integration on the continent, I believe that, in the coming years, we will see a significant increase in the proportion of financing and trade in local (and/or regional) currencies. This transformation would provide multiple direct and indirect benefits to more than 1 billion people."



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"TCX has a catalytic effect in frontier FX markets. Our hedging activities have led to several commercial banks opening trading books in currencies where TCX had been the sole market maker previously. This means that more liquidity is available to provide local currency financing. It also drives bid-offer spreads tighter, which leads to more attractive local currency financing rates for borrowers. As a trader, I expect this effect and our ability to mobilize private sector interest will continue to grow."

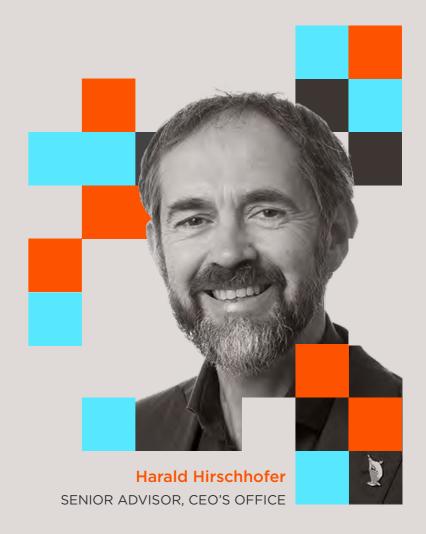




Nelly Lehn
ANALYST, TRADING

"Especially in heavily dollar-financed sectors such as renewable energy, I believe that improved access to local currency financing can really make a difference. Solutions to currency risk exist, and it is up to the development finance community to make them suitable and affordable even for the small-scale developer of solar home systems. Only in this way, we can stimulate investments, innovation and, ultimately, impact."

"The volume of currency risk will significantly increase as we finance a just transition to net zero. Managing these volumes will require a rapid expansion of currency risk markets. TCX will play a critical role in facilitating this growth, especially in the smaller low-income countries."



TCX IMPACT REPORT 2022 36



"I see a future where access to local currency financing becomes the norm. This can be achieved through the development of onshore markets where local financial institutions are able to service the required needs of businesses and projects in the country. When local borrowers are not exposed to FX risk, it can improve their creditworthiness which could eventually lead to overall economic development."

"Local currency financing and market development will pave the way to unlocking economic sovereignty and resilience, strengthening sustainable local ecosystems against external shocks and driving inclusive, responsible growth."





**Fizo Haddad**ANALYST, RESEARCH

"Looking towards the future of emerging and frontier markets, local currency lending stands at the heart of debt sustainability, whether on a micro or macroeconomic level, and particularly for sovereigns. Not only does this approach open access to local markets, it is also instrumental in boosting financial resilience in frontier markets. FX risk and currency mismatches have led to unsustainable debt levels in recent years. It's clear that a shift to local currency financing isn't merely procedural; it's a significant leap toward reinforcing economic sustainability in these markets."

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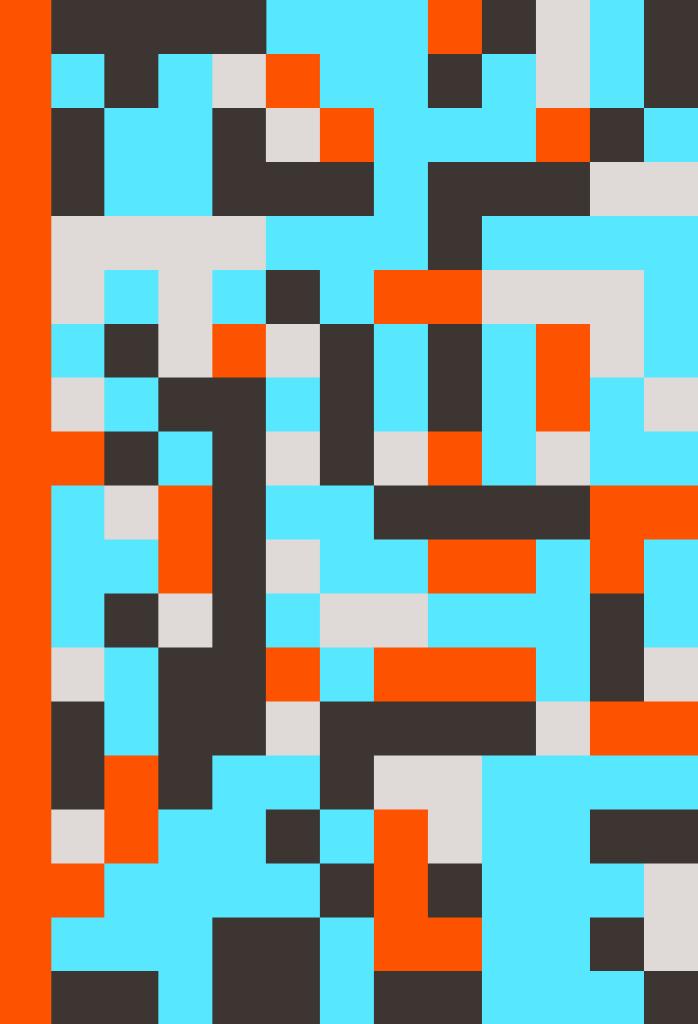
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