



## **ANNUAL REPORT**

**The Currency Exchange Fund N.V.**  
The Netherlands

**Year ended 31 December 2022**

Version : 2.1  
Date: 24 April 2023



## Contents

<b>GENERAL INFORMATION .....</b>	<b>1</b>
<b>LETTER FROM THE SUPERVISORY BOARD .....</b>	<b>2</b>
<b>LETTER FROM THE MANAGING BOARD .....</b>	<b>4</b>
<b>GOVERNANCE AND OWNERSHIP .....</b>	<b>18</b>
<b>IN CONTROL STATEMENT .....</b>	<b>23</b>
<b>STATEMENT OF THE DEPOSITARY .....</b>	<b>26</b>
<b>MEMBERS OF THE SUPERVISORY BOARD .....</b>	<b>27</b>
<b>MEMBERS OF THE MANAGING BOARD .....</b>	<b>29</b>
<b>MEMBERS OF THE PRICING COMMITTEE .....</b>	<b>30</b>
<b>FINANCIAL STATEMENTS .....</b>	<b>32</b>
Statement of financial position .....	32
Statement of comprehensive income .....	33
Statement of cash flows .....	34
Statement of changes in net assets attributable to holders of redeemable shares Class A.....	35
Notes to the Financial Statements .....	36
Significant accounting policies, estimates and judgments .....	67
<b>OTHER INFORMATION.....</b>	<b>75</b>
Profit appropriation .....	75
<b>INDEPENDENT AUDITOR'S REPORT .....</b>	<b>76</b>

## GENERAL INFORMATION

<b><i>Supervisory Board</i></b>	<b><i>Managing Board and Fund Manager</i></b>
<p>Mrs. Lakshmi Shyam-Sunder (Chair)  Mr. Marcus Fedder (Vice-Chair)  Mr. Aigboje Aig-Imoukhuede  Mr. Tim Armbruster  Ms. Sarah Russell</p>	<p>TCX Investment Management Company B.V.  Mauritskade 63  1092 AD Amsterdam  The Netherlands</p>
<b><i>Depository</i></b>	<b><i>Custodians and Banks</i></b>
<p>Bank of New York Mellon S.A./N.V.  Tribes SOM2 Building  Claude Debussylaan 7  1082 MC Amsterdam  The Netherlands</p>	<p>Bank of New York Mellon S.A/N.V.  Citibank NA</p>
<b><i>Risk Monitor</i></b>	<b><i>Administrator &amp; Valuer</i></b>
<p>Cardano Risk Management B.V.  Weena 690, 21<sup>st</sup> floor  3012 CN Rotterdam  The Netherlands</p>	<p>DLM Finance B.V.  Mauritskade 64  1092 AD Amsterdam  The Netherlands</p>
<b><i>Independent Financial Auditor</i></b>	<b><i>Independent Operational Auditor</i></b>
<p>PricewaterhouseCoopers Accountants N.V.  Fascinatio Boulevard 350  3065 WB Rotterdam  The Netherlands</p>	<p>Solutional Netherlands B.V.  Arentsburghlaan 3  2275 TT Voorburg  The Netherlands</p>
<b><i>Legal and Netherlands tax advisors</i></b>	<b><i>General Information</i></b>
<p>Jones Day  Concertgebouwplein 20,  1071LN Amsterdam  The Netherlands</p> <p>Simmons &amp; Simmons LLP  Claude Debussylaan 247  1082MC Amsterdam  The Netherlands</p>	<p><u>Office Address</u>  Mauritskade 63  1092 AD Amsterdam  The Netherlands</p> <p><u>Amsterdam Chamber of Commerce Registration</u>  3427 7912</p> <p><u><a href="http://www.tcxfund.com">www.tcxfund.com</a></u>  <u><a href="mailto:info@tcxfund.com">info@tcxfund.com</a></u></p>



## LETTER FROM THE SUPERVISORY BOARD

Dear Reader,

Over the last year, the financial resilience of borrowers in the developing world was once again put to the test. Geo-political events such as the war in Ukraine, rising US interest rates, heightened inflation levels, and global uncertainty have severely pressured debt sustainability. Currencies of many developing countries suffered the largest losses against the US dollar since the onset of the COVID-19 pandemic, driving public debt levels and obstructing development progress. Needless to say, the topic of currency risk and how to protect against it has become increasingly important. TCX's solution to currency risk has become more relevant than ever.

For TCX, 2022 marked another test of the financial sustainability of the Fund's business model. We were pleased to see that, despite the macro-economic environment, TCX helped manage the currency risk for the highest volume of development finance loans and equity investments in its 15 years of existence, while realizing a modest profit of close to USD 9 million. This speaks to the essential purpose of TCX, especially at times of volatility, to absorb shocks and losses that recipients of cross-border investments in the emerging and frontier markets would otherwise bear.

In fact, 65% of the investments that TCX provided hedges for in 2022 went to the least developed and lower-income countries. While volumes in Sub-Saharan Africa decreased versus 2021, TCX remained particularly active in the region, hedging USD 382 million. Interestingly, TCX's business volumes in Asia and Latin America more than doubled the prior year. The microfinance and SME finance sectors remain the dominant beneficiaries, however, TCX also provided hedges for flows in other sectors, such as energy and infrastructure.

While TCX took on USD 1.38 billion across 43 currencies on its books in 2022, the Fund managed to offset a record 60% of this volume in the capital markets. This high share was the result of a relatively high concentration in currencies hedged, requiring more risk offsetting activities. The way this is done — through local currency bond issuances by some of TCX's triple-A rated shareholders — is quite remarkable and innovative. It not only frees up capacity for TCX to do more in certain currencies and with the same capital base, but it also contributes to local capital market development and increasing investor appetite in exotic currencies.

Following the approval to internalize the risk management functions currently performed by Cardano Risk Management, TCX made significant progress on this project in 2022, despite start up delays resulting from the departure of the Fund's previous Chief Risk Officer (CRO). The progress includes the internalization of operational controls, significant steps in the internalization of market risk measurement and reporting, and we welcomed Mrs. Carien Dam as the new CRO. This project will last through 2023.

Advocacy for currency risk protection and scaling up (synthetic) local currency financing was also core to TCX's activities in 2022. To many development finance professionals, the concept of currency risk remains a rather abstract concept. That is why, through a feature in the Financial Times in October 2022, TCX launched the *Health and Education At Risk* (HEAR) ratio. It expresses the effect of currency depreciations on government budgets for critical development sectors: health and education. The campaign has proven to be an effective way to communicate about currency risk to high-level policy makers and sovereign borrowers in particular.

As the Fund celebrated its 15<sup>th</sup> anniversary in 2022, the Management Board presented the strategy for the next 5 years. TCX will focus on increasing its impact and stepping up opportunities in climate finance. The Fund will also explore servicing public entities and contributing to building financial resilience of sovereign borrowers. TCX already dipped its toes in this sector when it hedged a loan from EBRD to the Republic of Uzbekistan in 2022. The shareholders approved the 2022-2026 strategy in May 2022.



On the investor side, we were pleased to welcome Proparco, on behalf of the French government, as an investor in TCX's Convertible Subordinated Debt. Furthermore, in the final days of 2022 and early in 2023, the European Commission announced their EUR 405+ million allocation to TCX under the EFSD+ program, as a budget to scale up and make currency risk protection more affordable in the most challenging markets. Although no commitment letters or agreements have till now been signed in relation to this budget allocation, this is a tremendous vote of confidence for TCX and we look forward to seeing the Fund contribute to the Commission's policy objective of increasing local currency funding in development finance.

On the governance side, we were happy that Mr. Tim Armbruster joined the Supervisory Board, whilst Ms. Lakshmi Shyam-Sunder replaced Mr. Bernd Loewen as Chair of the Supervisory Board. The Supervisory Board also dedicated time to reviewing the governance and mandate of the Pricing Committee. This led to setting fixed terms for the (re-)appointment of Pricing Committee members and the conclusion that the committee's name should be changed to "Valuation Committee", to reflect better the fact that the committee approves the benchmark curves that underpin the Fund's valuations. The name change will be proposed at the May 2023 AGM.

In conclusion, TCX is well positioned to operate in another year that will undoubtedly be characterized by uncertainty. We wish to thank the Fund Manager, the Pricing Committee and TCX's partners, including DLM Finance, Cardano Risk Management, and OG Research, for their outstanding work and support in 2022.

Amsterdam, 24 April 2023

**The Supervisory Board of The Currency Exchange Fund N.V.**

Mrs. Lakshmi Shyam-Sunder (Chair)  
Mr. Aigboje Aig-Imoukhuede  
Mr. Marcus Fedder  
Ms. Sarah Russell  
Mr. Tim Armbruster

## LETTER FROM THE MANAGING BOARD

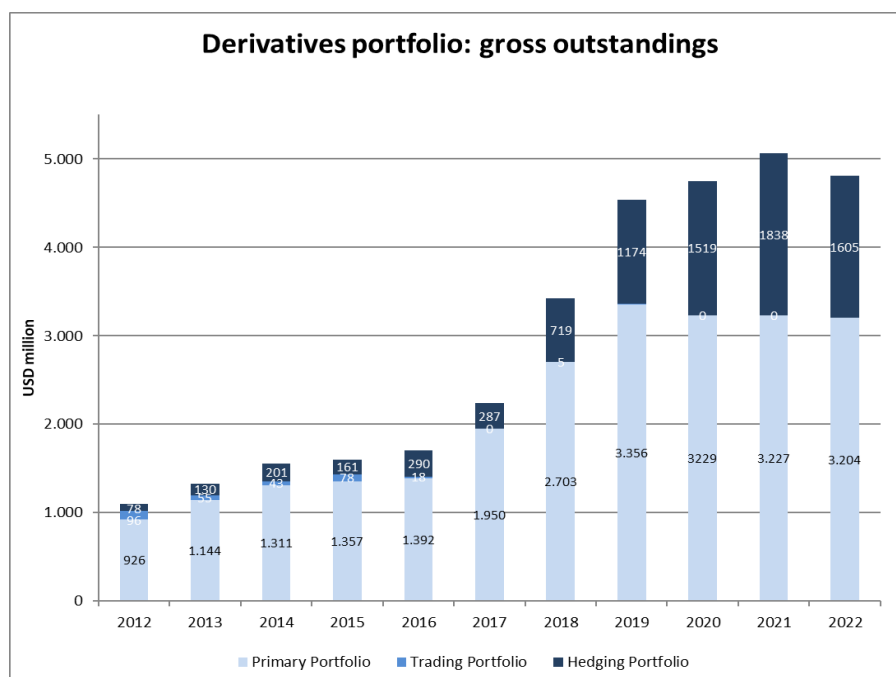
### RESULTS 2022

#### Portfolio size: gross outstandings

Reflecting the difficult market conditions that prevailed through 2022 due to the direct and indirect effects of the COVID crisis, the Ukraine-Russia war, and other factors globally, TCX's gross derivatives outstandings (*total of its long and short positions*) decreased 5% in 2022, from USD 5.1 billion at year-end 2021 to USD 4.8 billion at year-end 2022:

Investment type (USD millions)	Long Positions		Short Positions		Gross outstandings		Net Exposure (Long-Short)	
	2022	2021	2022	2021	2022	2021	2022	2021
Primary book	3.185	3.180	19	47	3.204	3.227	3.166	3.133
Trading book	0	0	0	0	0	0	0	0
Hedging book (LCY:USD)	16	36	1.175	1.257	1.191	1.293	-1.159	-1.221
<b>Total LCY portfolio</b>	<b>3.201</b>	<b>3.216</b>	<b>1.194</b>	<b>1.304</b>	<b>4.394</b>	<b>4.520</b>	<b>2.007</b>	<b>1.912</b>
Hedging book (EUR:USD)	389	515	25	30	414	545	364	484
<b>Total TCX portfolio</b>	<b>3.590</b>	<b>3.730</b>	<b>1.219</b>	<b>1.334</b>	<b>4.808</b>	<b>5.065</b>	<b>2.371</b>	<b>2.396</b>

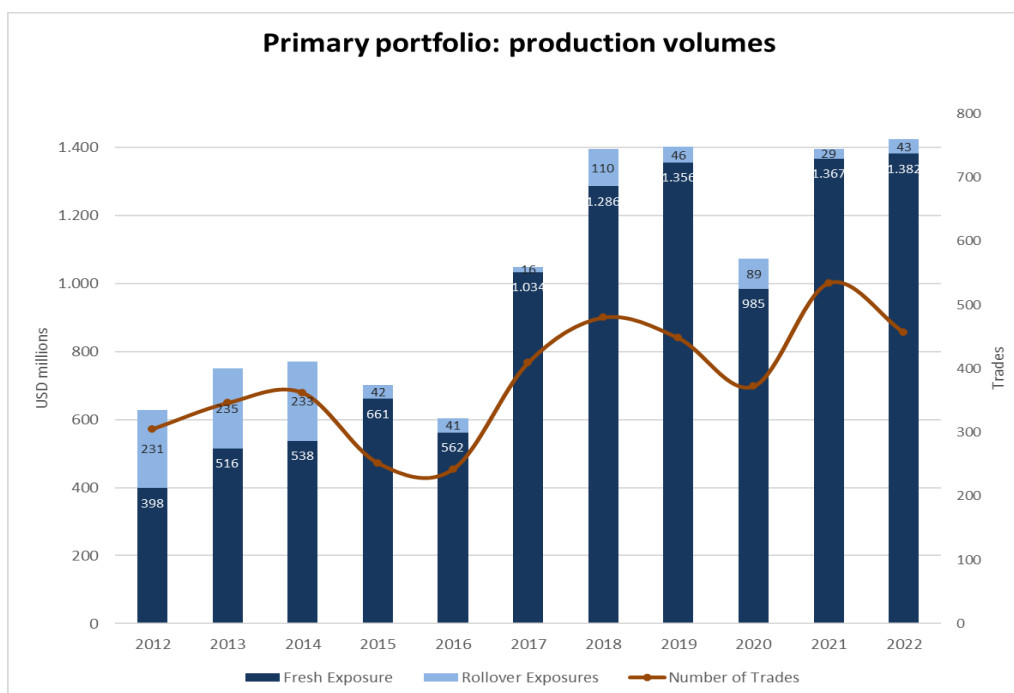
Excluding the EUR:USD Hedging book whose purpose is to manage part of the EUR risks that arise on around a third of the Primary book, the portfolio outstandings decreased 3% to USD 4.4 billion. This local currency portfolio was spread across 1,385 trades in 55 local currencies (2021: 1,356 trades and 55 currencies), including USD 3.2 billion in Primary Investments and USD 1.2 billion in Hedging Investments.<sup>1</sup> The graph below shows the historical trend:



<sup>1</sup> Primary Investments are medium- to long-term local currency swaps and forwards transacted with TCX investors and select third-parties in relation to real underlying economic activities (speculative positions are not allowed). These investments consist, for the most part, of long local currency positions that hedge local currency loans to local borrowers, though short positions are possible as well (to hedge the FX risks, for example, of offshore entities that earn hard currencies but enter into long-dated contracts to pay for local goods and services in local currency). For diversification and concentration/risk management purposes, TCX also invests in derivatives with investment banks and professional counterparties. Where the purpose is portfolio diversification, the trades are classified as Trading Investments. Where the purpose is managing concentrations and mismatches in the Primary Investments portfolio, the trades are classified as Hedging Investments. The latter include the short local currency trades that TCX closes in relation to local currency bonds issued by TCX's investors to institutional and other investors, which serve to stimulate the development of local capital markets.

## Primary book

The Primary production increased 1% from USD 1.37 billion in 2021 to USD 1.38 billion in 2022, the most ever in TCX's history:



This Primary production was spread across 43 currencies in 428 transactions. Especially noticeable was the production in Asia and Latin America, which more than doubled compared to 2021:

Primary portfolio: production volumes by region (USD mln)			
Region	2022	2021	Change in %
Europe / Central Asia	382	584	-35%
Sub-Saharan Africa	337	386	-13%
Latin America	303	158	92%
Asia	213	173	23%
Middle East North Africa	146	65	124%

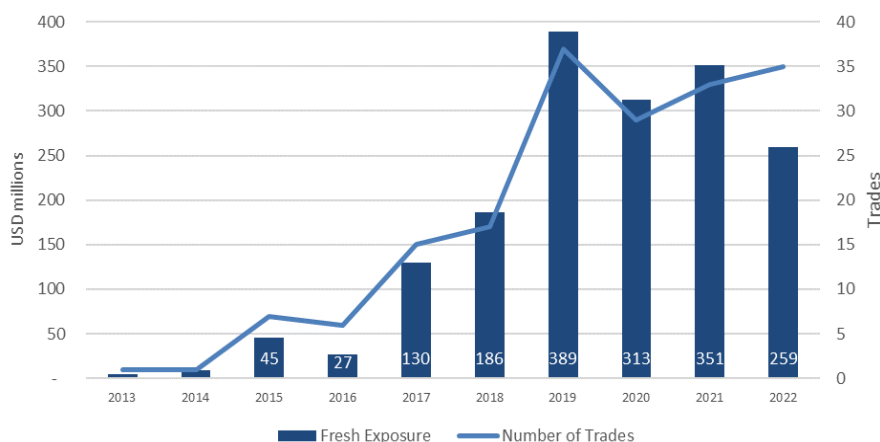
Despite the increase in Primary production, the Primary portfolio outstandings did not grow during 2022 and ended the year at USD 3.20 billion vs. USD 3.23 billion in 2021. This is explained by the fact that the new production was entirely offset by portfolio reductions due to scheduled maturities and trade unwinds.

## Hedging book

The local currency Hedging book outstandings decreased 8% in 2022, reaching USD 1.2 billion or 37% of the Primary book outstandings (2021: 40%). Given the difficult market conditions that prevailed through the year, maintaining this level of the Hedging book is considered satisfactory.

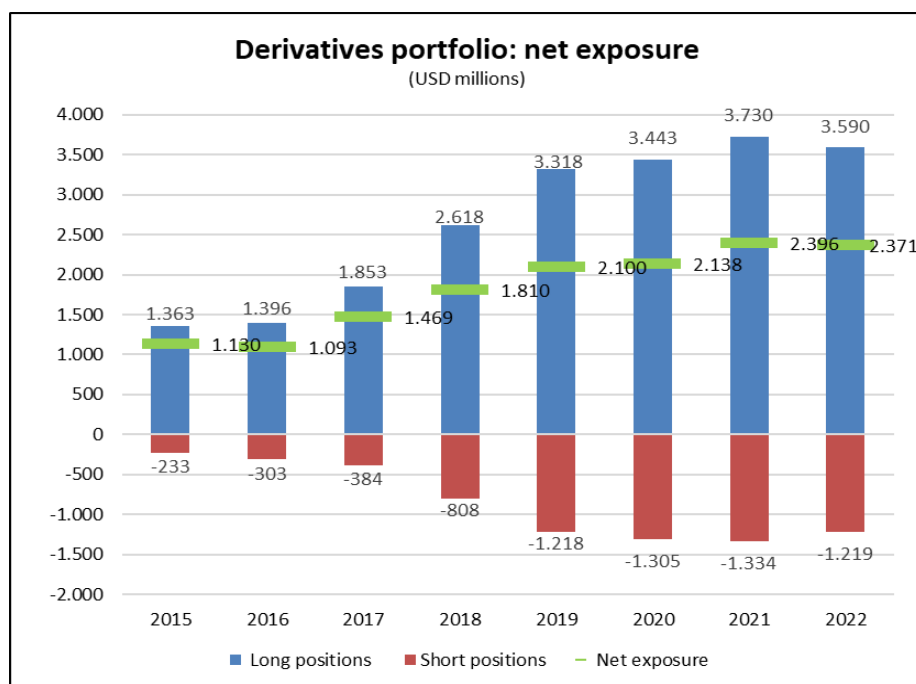
In total, USD 824 million in local currency Hedges were closed during the year, amounting to 60% of the Primary production. This includes USD 259 million related to bond issuances by TCX's investors, a 26% decrease relative to 2021 due to the difficult market circumstances. These capital market development transactions - which TCX actively stimulates to reduce concentrations, release capital, and increase the capacity for closing fresh Primary transaction - were spread across 14 currencies in 35 transactions:

LCY bonds: production volumes



## Portfolio size: net exposures

TCX's net derivatives exposure (*its long positions minus its short positions*) decreased 1% year-on-year, reaching USD 2.37 billion at year-end 2022. This decrease was driven by a 4% decrease in the notional size of the long book, and a 9% decrease in the notional size of the short book:

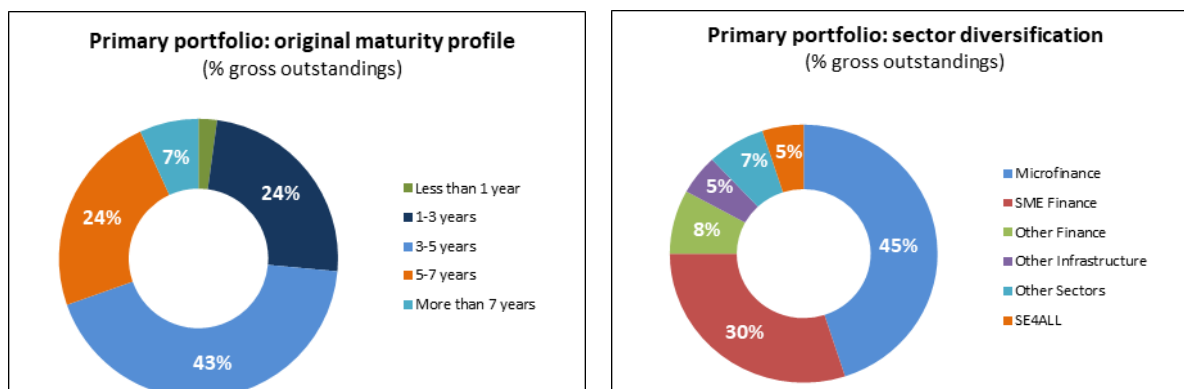


Included in the short book are the derivatives related to the bond issuances by TCX's investors and other parties. This portfolio decreased from USD 843 million in 80 transactions in 2021, to USD 718 million in 82 transactions in 2022 (-15% by amount and +2,5% by number of transactions).



## Portfolio profile

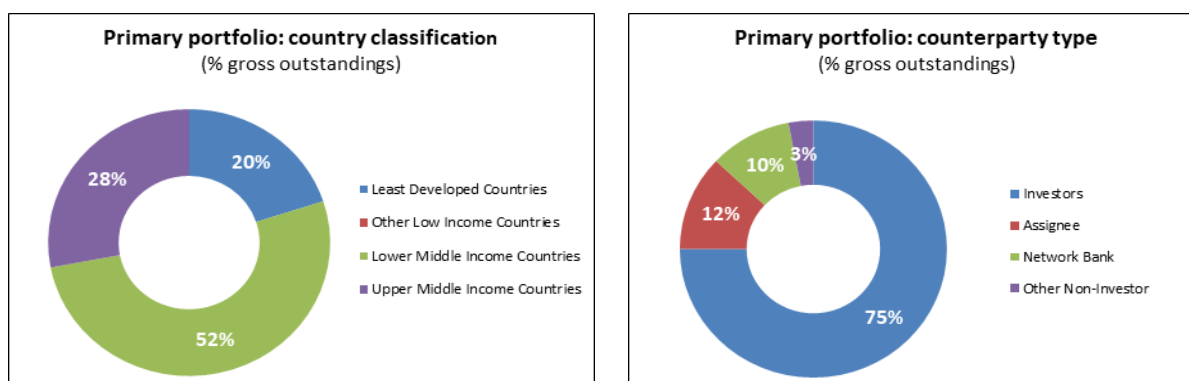
In 2022, as shown below, the maturity profile of the Primary portfolio remained relatively stable, with 74% of the gross outstandings having an original maturity of 3 or more years (2021: 72%). At the same time, in the sector diversification, the SME sector remained at 30%, while the microfinance sector decreased to 45% in 2022 vs. 46% in 2021. The other sectors increased to 25% in 2022 vs. 24% in 2021:



Within the 'other' category, the share of the non-financial segments (SE4ALL, infrastructure, etc.)<sup>2</sup> increased to 17% of the portfolio, with a small decrease in the number of deals outstanding:

Primary portfolio						
	SE4ALL		Other infrastructure		Other sectors	
	2022	2021	2022	2021	2022	2021
Gross outstandings (USD mln)	152	132	156	236	230	145
% of portfolio	5%	4%	5%	7%	7%	5%
Number of deals outstanding	40	46	16	22	41	38

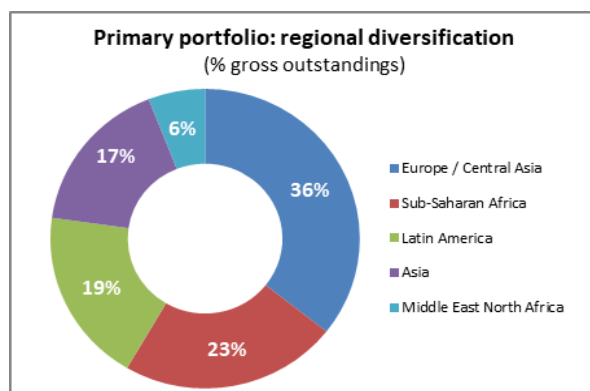
In terms of Development Assistance Committee (DAC) country classification, the proportion of the Primary Investments portfolio allocated to the least developed and lower income countries decreased slightly from 74% of the portfolio in 2021, to 72% in 2022:



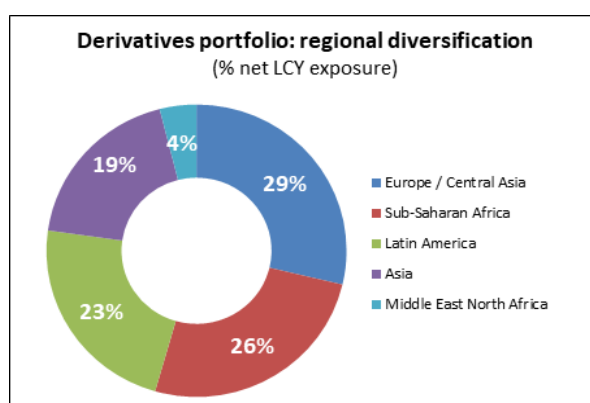
Per type of counterparty, 87% of the Primary portfolio is investor-related. The balance is sourced from international banks and other parties. This deal-flow diversifies the currency mix of the portfolio and enhances TCX's development impact, notably by contributing to achieving specific development objectives targeted by the Subordinated Convertible Debt investors (e.g., Sub-Saharan Africa, SE4ALL, etc.).

<sup>2</sup> SE4ALL = Sustainable Energy For All

In 2022, the regional mix of the Primary portfolio outstandings saw Sub-Saharan Africa's share increase to 23% (2021: 21%), Latin America to 19% (2021: 16%) and Asia to 17% (2021: 15%). This result came at the expense of Europe/Central Asia shares which decreased to 36% (2021: 42%) while the Middle East North Africa region remained 6 %.



Looking at the regional mix of the net exposures in the total local currency derivatives portfolio (which is the basis for setting the regional currency limits), Sub-Saharan Africa shares increased to 26% (2021: 22%), Latin America to 23% (2021: 21%) and Asia to 19% (2021: 15%) whereas Europe/Central Asia shares decreased to 29% (2021: 38%) and Middle East North Africa remained unchanged at 4% (2021: 4%).



## Financial results

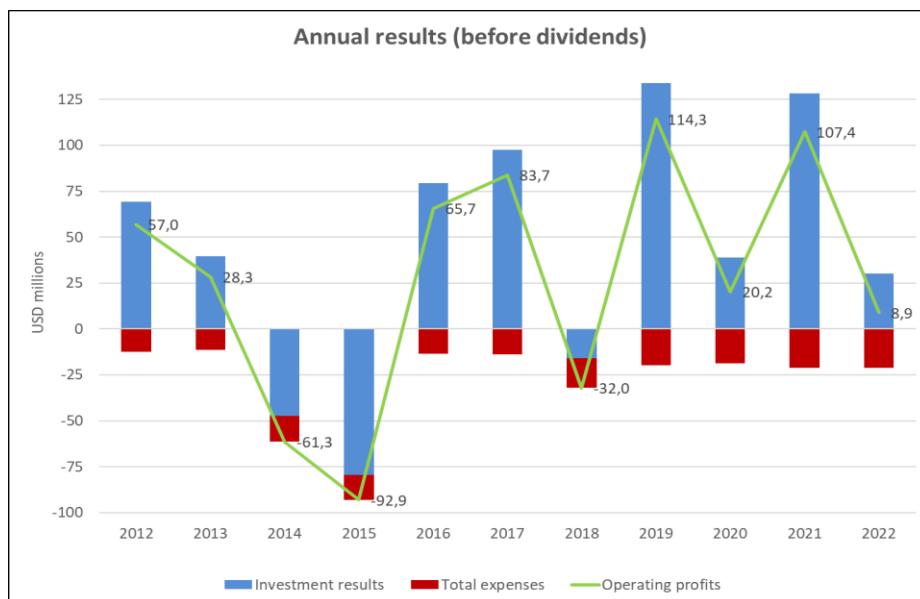
The net result for 2022 was a profit of USD 8.9 million, including an investment gain of USD 30 million (after FX translation effects) and USD 21 million in operational expenses and financial charges.

- The primary driver of the investment gain of USD 30 million was the positive interest carry in TCX's derivatives book. This was partially offset by net losses due to FX and interest rate (curve) movements.
- The operational expenses<sup>3</sup> increased from USD 14.7 million (0.23% of Assets Under Management<sup>4</sup>) in 2021, to USD 14.8 million in 2022 (0.24% of AUMs).

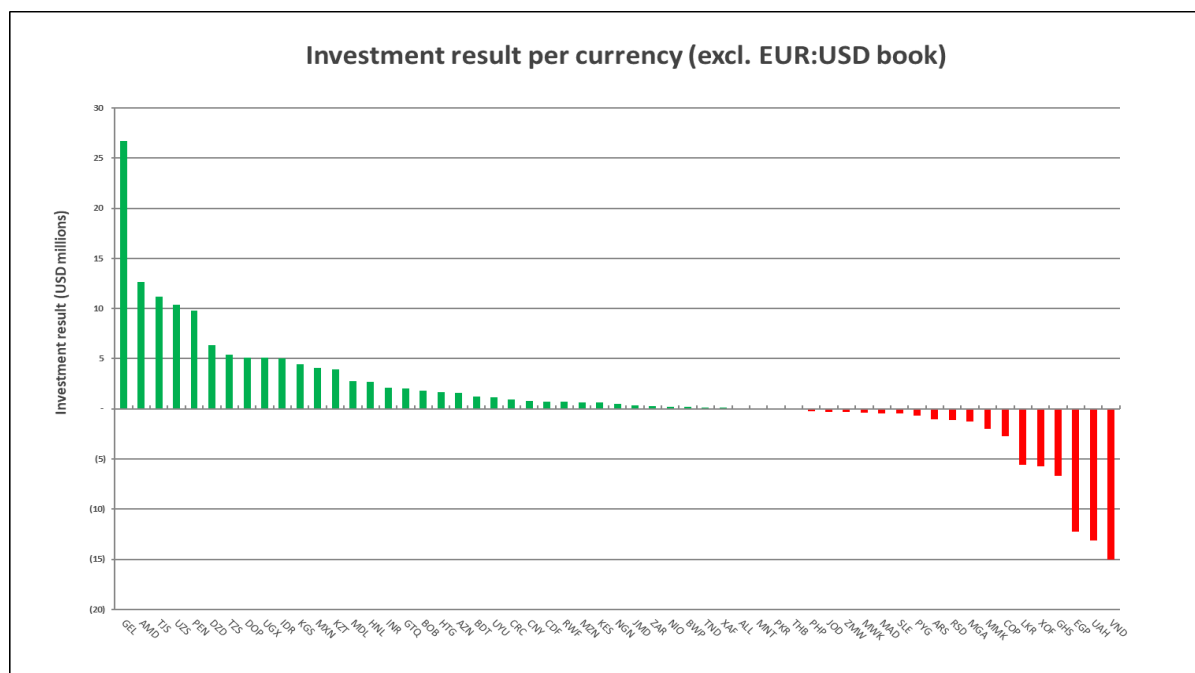
<sup>3</sup> Includes the management and performance fees paid to the Fund Manager, plus TCX's internal costs.

<sup>4</sup> The AUMs are as defined under the Alternative Investment Fund Management Directive and are essentially equal to the fair market value of TCX's non-derivative assets plus the gross notional size of the derivatives portfolio. The AUMs at 31 December 2022 totaled USD 6.2 billion (2021: USD 6.3 billion).

- The financial charges consisted primarily of USD 6 million in amounts due on the Subordinated Convertible Debt holders (2021: USD 5.6 million).

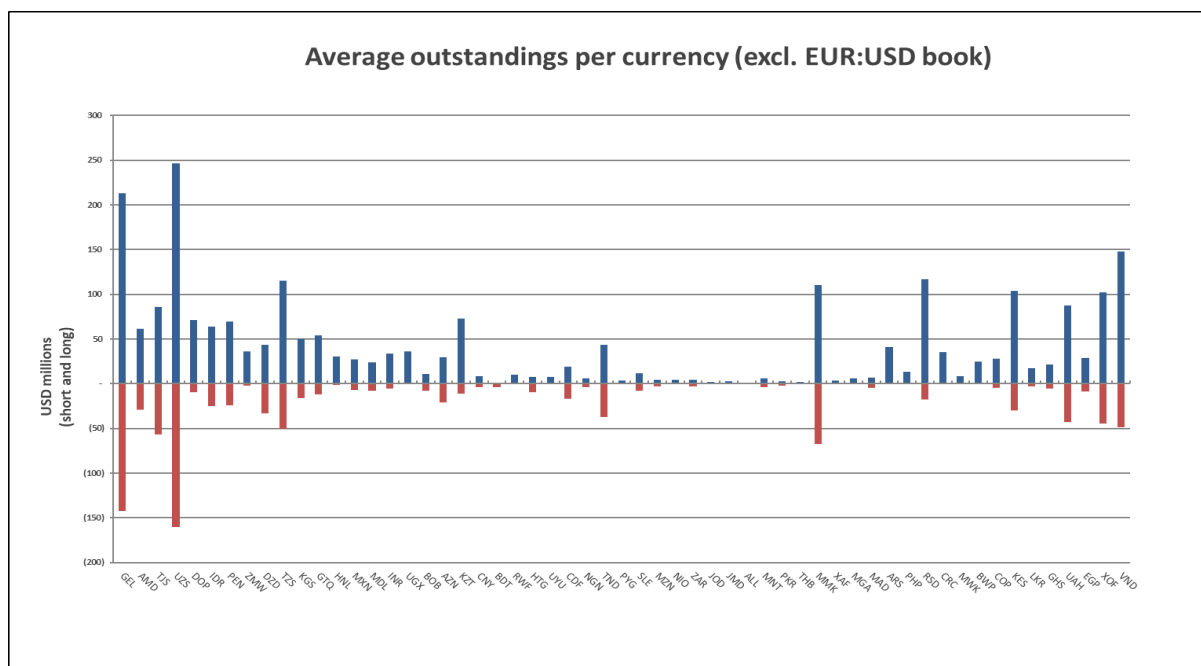


- The net gains<sup>5</sup> and average long and short outstandings per currency were as follows:

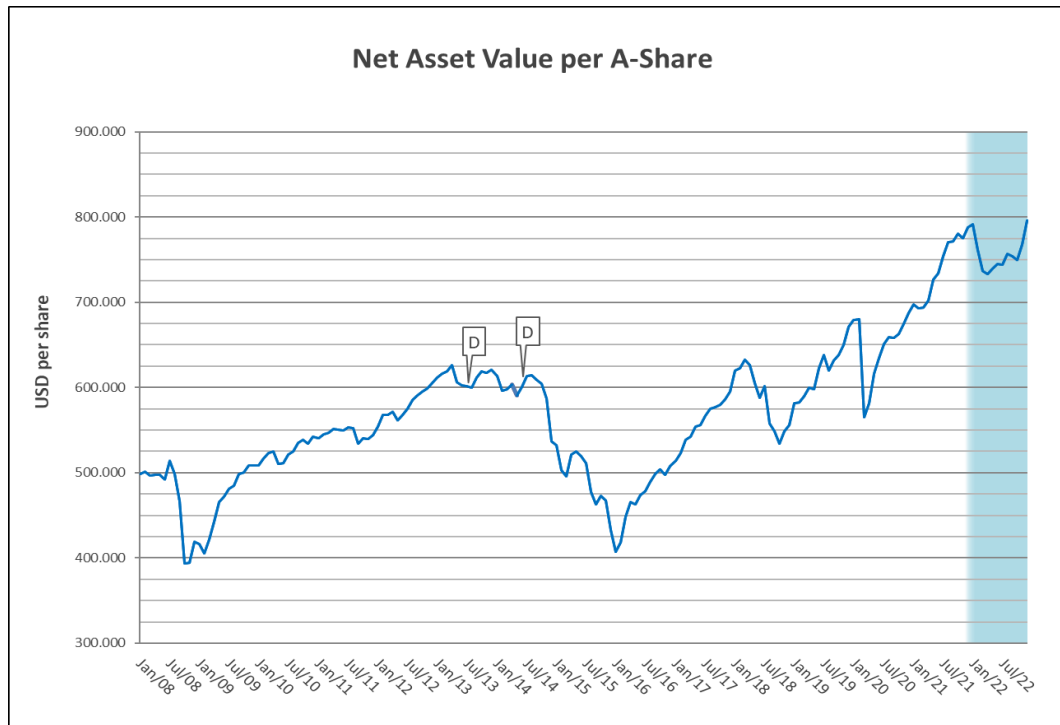


<sup>5</sup> The results shown are the totals of the (realized and unrealized) results on the deals hedging specific currencies. The result therefore also includes the result on the deals' hard-currency leg, for example when the hard-currency interest rates change or when the EUR/USD moves. In Georgian Lari, a significant portion of the trades is versus the EUR, so the depreciation of the EUR vs USD contributed to the GEL result shown.

See Note 21 for details on the realized and unrealized results on the derivatives portfolio.



Reflecting the year's net result, the Net Asset Value per share grew by 1% year-on-year, from USD 787,503 per share at year-end 2021 to USD 795,998 per share at year-end 2022:

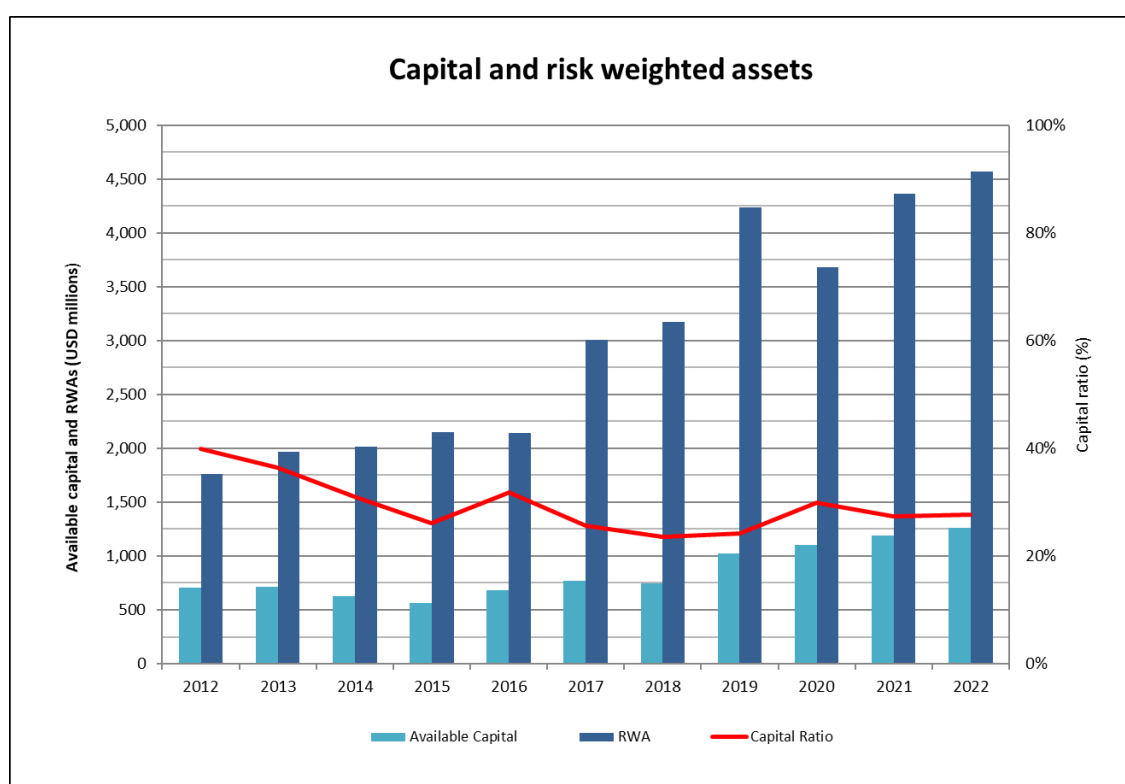


## Capital management

The available capital grew 6%, from USD 1.19 billion at year-end 2021 to USD 1.27 billion at year-end 2022, an increase of USD 80 million. This increase was primarily driven by:

- the year's retained earnings (USD 8.9 million), plus
- EUR 2.5 million in funded Subordinated Convertible Debt issued in September 2022 to France's *Promotion et Participation pour la Coopération Economique* (PROPARCO, with funds provided by the *Agence Française de Développement*); and
- EUR 65 million in unfunded Subordinated Convertible Debt issued in November 2022 to KfW on behalf of the European Commission.<sup>6</sup>

The capital ratio (available capital to risk weighted assets) increased to 27.7% at year-end 2022, compared to 27.4% in 2021. This increase was caused by the faster growth of the available capital (+6% to USD 1.27 billion) compared to the risk weighted assets (+5% to USD 4.6 billion).



Market risks (FX and interest rate risks) accounted for 92.8% of risk weighted assets at year-end 2022 (2021: 92.9%), operational risks 5% (2021: 5%), and credit risks 3% (2021: 2%).

## Credit ratings

In April 2022, Standard & Poor's re-confirmed TCX's credit rating as "single-A with a stable outlook".

In July 2022, Moody's re-confirmed TCX's credit rating as "A1 with a stable outlook".

<sup>6</sup> Final tranche of the 15-year EUR 145 million EC Capacity Facility. For additional information, see Note 19 to the Financial Statements.

## RECENT DEVELOPMENTS

### **Internalization of the risk management functions outsourced to Cardano Risk Management B.V.**

At the May 2021 Annual General Meeting of TCX, the Fund's shareholders approved a proposal to internalize the functions performed by Cardano Risk Management B.V. since the Fund's launch in 2007. These outsourced functions include quantifying, monitoring, and reporting the Fund's risk exposures and capital ratios, and providing trading, valuation, and operational control services to the Fund. The proposal to internalize these functions was rooted in the view that TCX is a risk management business that has become complex and sizeable enough to justify the transformation in the interest of TCX's investors.

This risk internalization project - which began in 2021 and will last through 2023 – primarily involves the following changes to the existing set-up:

- Expanding the Fund Manager's risk management team to include enterprise, market, counterparty, and operational risk management experts.  
In this context, we note the appointment of Mrs. Carien Dam as CRO and Managing Board member on 9 January 2023, replacing the previous CRO who resigned effective 10 June 2022. In the interim period, Mr. Brice Ropion, COO, assumed the CRO role.
- Acquiring and implementing a risk system that interfaces with the back-office and front-office systems.  
The system selected is MSCI's RiskMetrics. It is presently being run in parallel with the systems of Cardano Risk Management B.V.
- Internalizing within the Fund Manager the risk measurement, reporting, monitoring, and control activities performed by Cardano Risk Management B.V.  
These activities will be internalized in 2023 on completion of the parallel runs and once the risk management team is fully in place.
- Internalizing within the Fund Manager and the Fund's Administrator and Valuer (DLM Finance B.V.) the trading, valuation and operational controls performed by Cardano Risk Management.  
The operational controls were internalized during 2022. The trading and valuation controls will be internalized in 2023.

In addition, work is ongoing to implement an Enterprise Risk Management (ERM) framework for managing the risks TCX faces. This longer-term 'risk optimization' project will last through 2023/2024.

An inevitable outcome of the above is that gradual changes are being made to the Fund's processes and controls, whose adequacy and effectiveness will require retesting over time. However, the changes will adhere to the existing risk management principles, notably the separation of (i) the business, risk, and oversight functions; (ii) the system and model development, validation, and 'promotion to production' functions; and (iii) the user access and data entry, verification, approval, and reconciliation functions. Accordingly, we do not expect that the changes will increase TCX's risk profile, and rather expect that TCX will benefit significantly from internalizing and optimizing the risk management function as proposed.

### **Launch of the HEAR ratio**

In October 2022, TCX launched the *Health & Education at Risk* (HEAR) ratio, which expresses a country's open currency exposure (translated into local currency) as a multiple of its average budgets for health and education. The ratio thus enables a direct assessment of the adverse impact of a local currency depreciation on those budgets (e.g., if the multiple is 7 times, a 1% depreciation of the local currency against the US dollar would consume the equivalent of 7% of the health and education budgets).

Such conclusions drive TCX's belief that borrowing countries should always be given a choice to borrow in (synthetic) local currency, as this results in more predictable interest and debt (re)payments. However, the current common practice of borrowing in hard currency while not hedging currency risk often leads to ballooning levels of sovereign debt. This could have serious consequences for government expenditures on healthcare and education, amongst other crucial sectors for development.



For additional information on the HEAR ratio, please see TCX's website at [www.tcxfund.com/hear/](http://www.tcxfund.com/hear/)

### **European Commission increases financial support to TCX**

In December 2022, the European Fund for Sustainable Development Fund Plus (EFSD+) allocated a budget of EUR 325.75 million in financial guarantees in support of TCX, as part of the European Commission's efforts to de-risk and leverage private investments in emerging and developing markets and thus attract more private sector investments to these markets. This budget allocation was increased to EUR 405.75 million in January 2023, reflecting the EC's determination to increase the share of (synthetic) local currency funding in development finance.

To date, no commitment letters or agreements have been signed with TCX in relation to these allocations. Nonetheless, TCX has started work with KfW, FMO, and EDFI Management Company as implementing partners to use the allocations to boost its funded and unfunded capital base and make currency risk protection more affordable in the markets it serves, especially for financings to reduce energy poverty. In addition, there will be a capacity building component focused on currency risk management for sovereign debt management. Combined with the existing EU Market Creation Facility of EUR 165 million (EUR 145 million in the EC Capacity Facility and EUR 20 million in the EC Pricing Facility), this could ultimately bring the European Commission's support of TCX to more than EUR 570 million, subject to agreeing all necessary documentation with the implementing partners and the EC.

## **ONGOING CHALLENGES**

### **Impact of recent crises and going-concern representation**

Although the Managing Board expects that difficult financial market conditions will prevail through 2023 due to the direct and indirect effects of the Covid, Ukraine, and other crises, and there exists significant uncertainties concerning our assessment of their impact on TCX, we have at this time no material uncertainties concerning TCX's ability to continue as a going-concern entity.

This conclusion is based on the Fund's strong capitalization and liquidity and the continuing absence of material operational issues. We appreciate as always that global economic and geo-political pressures may escalate from the current tense situation and cause extreme volatility and sustained losses for TCX. At the same time, we note the following:

- The Fund is deliberately structured and capitalized to withstand 'tail-risk' scenarios, with a Liquidation Trigger set at 14% of Risk Weighted Assets, a redemption gate set at 18%, and remedial management action starting at 20%. In contrast, the capital ratio at year-end 2022 was 27.7% of RWAs. At this level of capital, TCX could today sustain a loss of USD 625 million (13.7% of RWAs) before causing a Liquidation Trigger Event. This amount is 6.7 times the worst annual result ever experienced by TCX (USD 93 million in 2015), 2.8 times the "12-month diversified risk" (or potential future annual loss) estimate reported at year-end 2022 (USD 220 million), and 1.04 times the extreme loss we might experience in a "twice Lehman 2008" scenario (USD 600 million based on last year's ICAAP report). These multiples demonstrate that entering 2023, our capital position is robust and capable of supporting substantial future volatility and growth at the same time.
- In addition, we note that TCX had ample liquidity at year-end 2022, with USD 1.2 billion (75% of assets) held in the form cash, cash-equivalents, and marketable securities to cover future expenses, settlement payments, and collateral needs.

### **Business development issues**

As we have in previous years, we re-iterate here some of the key business development issues we face when trying to expand TCX's portfolio and development impact:

- The choice for local currency funding to match assets earning local currency is often based on short-term financial considerations ("how much will it cost me now?") rather than forward-looking risk management ("how much more could I lose later?"). As a result, many end-clients mistakenly perceive



as attractive the low interest rates prevailing in hard currencies and continue to borrow in these currencies instead of local currencies. This often acts as a damper on TCX's growth.

- In many economic sectors, TCX faces long-standing structural impediments to realizing its development impact. An example is the energy sector where most of the underlying commercial contracts are denominated in US dollars and the risk is off-loaded to the end-clients. Another example is the infrastructure sector, due to the large amounts and long tenors required. Penetrating these sectors requires patient work to explain to the lenders, borrowers, regulators, and governments involved that local currency arrangements may be better suited.
- As a market risk vehicle, TCX is not in a position to absorb a significant amount of the credit and country risks that inevitably arise when investing in emerging and frontier markets. The Fund is dependent, therefore, on the ability and willingness of strong parties to face these risks, either as counterparties to TCX or as guarantors of its exposures.
- As the Fund increasingly operates as a warehouse of local currency risks (by on-selling to the market the exposures that it onboards when hedging the loan books of its counterparties), TCX becomes more dependent on the market's appetite for frontier currency risk. In the past, we have seen that periods of risk adversity towards frontier markets can reduce TCX's ability to offset the Fund's long positions. In these circumstances, the Fund's capital usage intensifies and its growth buffer shrinks. This reinforces the need to retain capital instead of paying dividends and to attract fresh capital to fuel the Fund's growth, in a context where the demand for TCX's product grows daily and capital raising transactions have long lead-times.
- TCX's Primary portfolio occasionally achieves peaks in individual and regional currency concentrations due to high demand in specific currencies. Notwithstanding the Fund Manager's efforts to place some exposures with market participants, the opportunities to offset these positions can be limited at times, due to market circumstances and TCX's mandate to be "additional" to the market. Under these circumstances, rationing the available capacity could be required.

As demonstrated since 2007, we believe that TCX has in place the strategies, policies, processes, resources and relationships necessary to overcome these challenges, and look forward to building on the momentum and successes of the past.

Amsterdam, 24 April 2023

**The Managing Board of TCX Investment Management Company B.V.**

Ruurd Brouwer, Chief Executive Officer  
Othman Boukrami, Co-Chief Investment Officer  
Carien Dam, Chief Risk Officer  
Bert van Lier, Co-Chief Investment Officer  
Brice Ropion, Chief Operating Officer





## BUSINESS OVERVIEW

### BUSINESS RATIONALE

Long-term finance in emerging markets is often provided by development banks and other international investors who naturally lend in hard currency. The local borrower, earning local currency, has limited scope to absorb a currency mismatch between income and liabilities, and thus should borrow in local currency. The international investor, however, can usually only provide local currency if it can itself be hedged.

In established markets hedging solutions are readily available, but this is rarely the case in frontier markets. Hedging products are typically provided by banks acting as intermediaries, ultimately placing the risk back into the local capital markets. In frontier markets, however, the ability to absorb these risks is limited. Thus, the intermediary model breaks down.

TCX's unique value proposition is its ability to retain, on its own balance sheet, the currency risks that arise from the hedges it provides to market participants. To operate successfully, TCX does not need a functioning local market. Its risk model is based on the portfolio diversification effect of spreading and absorbing currency risks across all regions. On average, the higher interest rates prevailing in frontier markets more than compensate for the devaluing trend of these currencies, which allows TCX to be modestly profitable over the longer term.

### BUSINESS PRINCIPLES

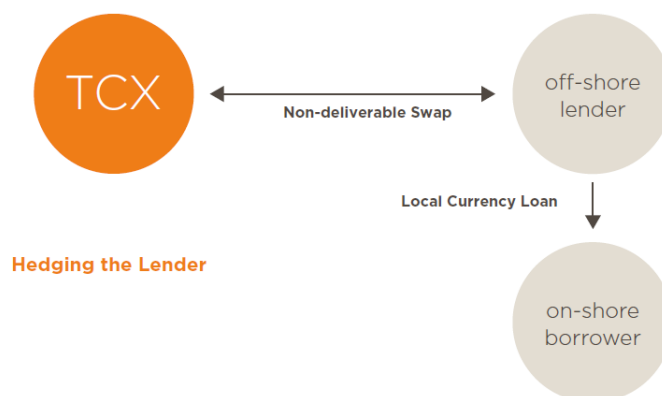
- **Focused products:** TCX only invests in market risk management products such as currency swaps and forwards. It does not provide funding.
- **Unique risk management structure:** TCX assumes outright currency risks in highly illiquid markets, managing risk through portfolio diversification across all regions and DAC countries in the emerging and frontier markets.
- **Alignment with shareholders:** By working with its shareholders, TCX has origination access to their combined client networks and deal-flow. TCX tailors its investments for these institutions.
- **Risk-reflective pricing:** TCX invests in products that are priced in accordance with prevailing market rates and established methodologies.
- **Additionality:** TCX only invests where its counterparties have no adequately priced commercial alternatives.
- **Non-speculation:** TCX only onboards currency exposures that arise from actual underlying obligations.

### PRODUCTS

TCX uses a limited set of derivative products and delivery channels to achieve its mission. This allows it to remain focused on its primary objective, which is the facilitation of long-term local currency finance in frontier markets in close alignment with its shareholders.

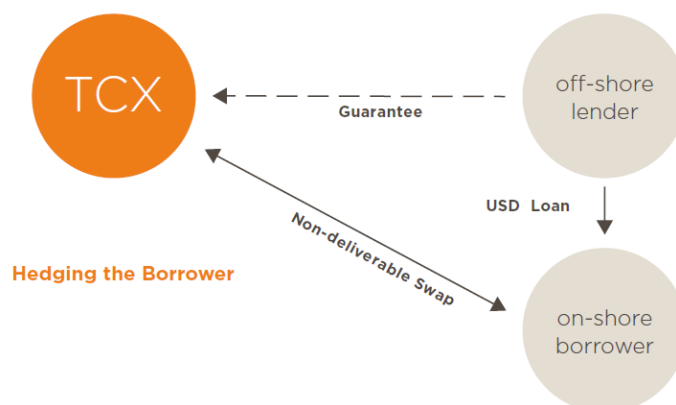
TCX's main investment product is a non-deliverable cross-currency swap, usually matched to the cash-flow of a local currency loan provided by one of its shareholders. The swap ensures that the lender's income is guaranteed in USD or EUR whilst the borrower's obligations are in local currency. A simpler investment product that can achieve similar results is the FX forward, also one of TCX's products.

The cross-currency swap may be provided either to the lender or to the borrower. Hedging the lender results in the investment structure presented in the figure below. The lender provides a local currency loan to the domestic borrower and hedges the associated currency exposure with TCX, so that the combined deal is an asset in the lender's functional currency e.g. the USD.



This structure is relatively straightforward from several perspectives. The client interface (and counterparty credit risk management) remains concentrated with the lender and the hedge is not exposed to domestic legal, regulatory or tax constraints.

The hedge may also be provided to the borrower, resulting in the structure presented below. The lender provides a USD loan to the local borrower, who hedges the resulting obligation with TCX. The hedge transforms its hard currency obligation into a local currency liability.



The direct swap to the local entity allows a greater flexibility in the application of the hedge, since it is decoupled from the loan. The timing, size and tenor of the transaction may be specified to suit the client's needs, as may the details of the hedge terms (the client could decide, for instance, not to include the loan margin in the hedge). The direct swap structure does however require TCX to onboard the local client, address the resulting counterparty risks (via guarantees or other means), and satisfy itself that the local legal, regulatory and tax environment support the required transaction terms. For these reasons, TCX generally prefers dealing directly with lenders.

Please refer to TCX's website, [www.tcxfund.com](http://www.tcxfund.com), for more details on TCX's investment products and the requirements to trade.



## DEVELOPMENT IMPACT AND SFDR DISCLOSURE

TCX's website showcases the Fund's development impact through content that includes a "Theory of Change" and an interactive dashboard that provides monthly updates on TCX's efforts to de-risk and stimulate the growth of the emerging and frontier markets it serves. The updates include, inter-alia, data on TCX's research activities, the size of the portfolio, its breakdown per currency and sector, and whether the trades relate to loans or bond issuances.

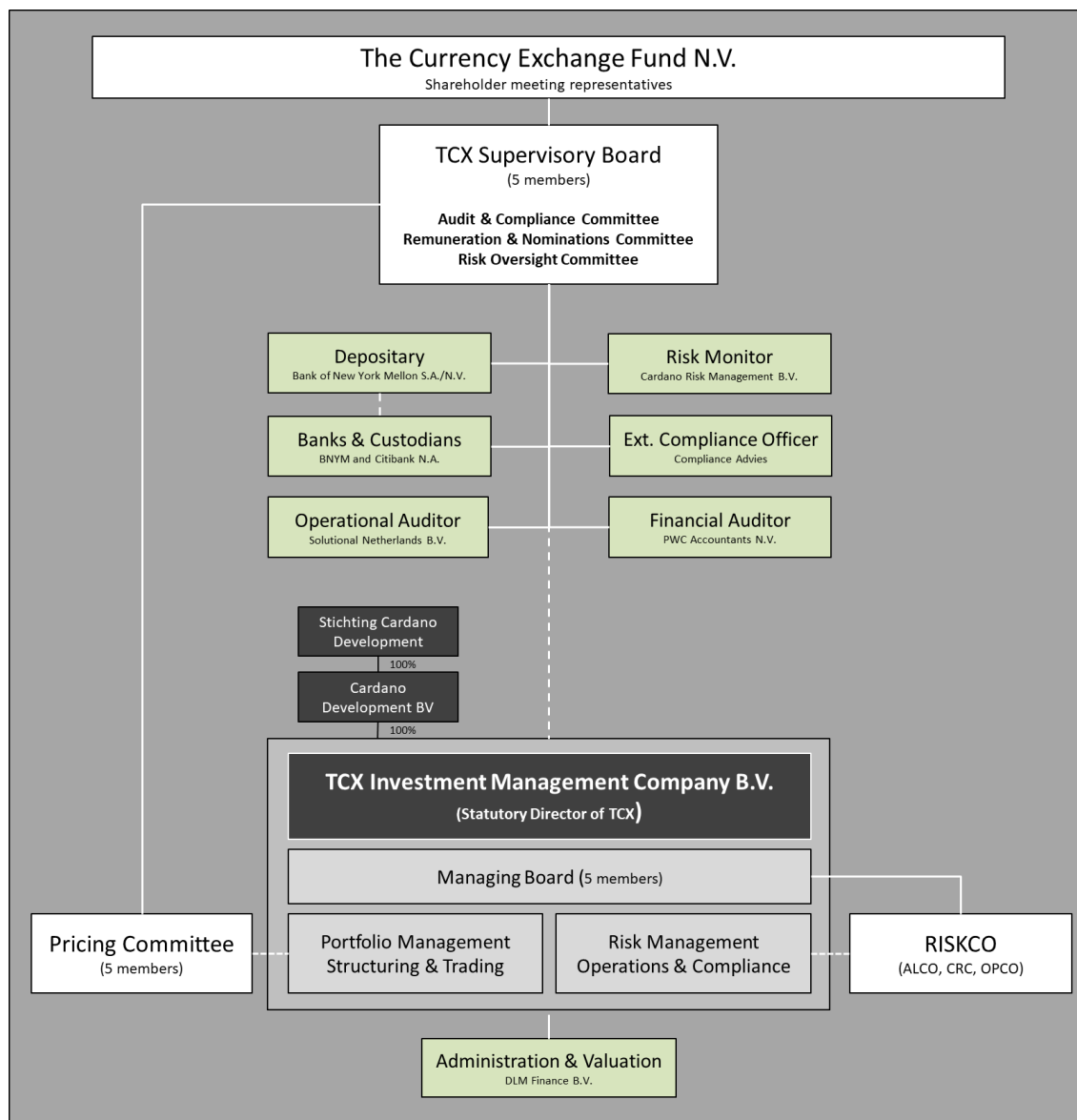
Also included is TCX's Impact Report, an annual publication that supplements the data in the dashboard with estimates of the Fund's environmental and social ("E&S") impact on (i) male and female jobs created, (ii) value added in the form of incremental salaries, profits and taxes, and (iii) gigawatts of energy generated and kilotons of green-house gas emissions avoided. These estimates are produced using a Joint Impact Model developed by Steward Redqueen, a specialized consultancy that works across the globe advising organizations on impact and sustainability. This model was developed in close collaboration with several development finance institutions, including several TCX investors.

Notwithstanding the availability of the above, it is important to note in the context of Regulation (EU) 2019/2088 of the European Parliament and the Council (the Sustainable Finance Disclosure Regulation or "SFDR"), that the returns on TCX's portfolio are a function of global FX and interest rate movements, not E&S factors. In addition, as a financial services provider that is often several layers removed from the parties that ultimately benefit from the hedges it provides, TCX is not in position to compile auditable data on the E&S impact of the lending activities that underlie its derivatives business. Accordingly, we stress here that the E&S measures in the Impact Report do not enter into TCX's investment decision-making processes as ex-ante inputs to try and achieve specific E&S targets. They are ex-post estimates provided for information purposes only.

TCX thus classifies as an 'Article 6' financial product under the SFDR, meaning that the investments underlying TCX as a financial product do not take into account the EU criteria for environmentally sustainable economic activities.

For additional information and a more detailed SFDR disclosure, please see <https://www.tcxfund.com/our-impact/>.

## GOVERNANCE AND OWNERSHIP



## FUND MANAGEMENT

TCX Investment Management Company B.V. (TIM) is TCX's exclusive Fund Manager and the sole member of the Fund's statutory Managing Board. As such, it is responsible for the commercial, operational, compliance and risk management of the Fund, with Mr. Ruurd Brouwer as its Chief Executive Officer, Mr. Othman Boukrami and Mr. Bert van Lier as its Chief Investment Officers<sup>7</sup>, Mrs. Carien Dam as its Chief Risk Officer (effective 9 January 2023), and Mr. Brice Ropion as its Chief Operating Officer and head of its finance and compliance functions. These five individuals comprise TIM's Managing Board.

<sup>7</sup> TIM has appointed two Chief Investment Officers jointly responsible for portfolio management to support a growing portfolio with more hedging and pricing decisions. Mr. Boukrami is also Head of Trading and Mr. van Lier is also Head of Structuring.



TIM is 100% owned by Cardano Development B.V., which itself is 100% owned by Stichting Cardano Development, a stand-alone tax-exempt not-for-profit foundation that has no ultimate beneficial owner under the relevant laws of The Netherlands.

TIM employed 35 staff members at year-end 2022 (2021:31). Details on the team's remuneration may be found in Note 9 of the Financial Statements.

TIM is supported by several parties in the management of the Fund. These parties include:

- The Fund's Administrator and Valuer, DLM Finance B.V., a company established and owned by former TIM employees, responsible for booking, settling, valuing, and reporting the Fund's positions, and preparing the Fund's accounts and NAV statements;
- The Fund's Risk Monitor, Cardano Risk Management B.V., a 100% subsidiary of Cardano Holding Ltd.,<sup>8</sup> responsible for quantifying, monitoring, and reporting the Fund's risk exposures and capital ratios, and providing pricing, valuation and risk advisory and control services to the Fund;
- Bank of New York Mellon N.V., the Fund's Global Custodian and Depositary. As Depositary, BNYM is responsible for monitoring the Fund's share transactions, safekeeping its assets, reconciling its cash flows, and confirming that its valuation policies and processes are being properly adhered to; and
- Compliance Advies Financiële Ondernemingen, the Fund's External Compliance Officer, responsible for supporting TIM's Internal Compliance Officer on regulatory matters, and for performing an independent whistle-blowing role on code of conduct and conflict of interest incidents.

TIM's remuneration for its services to TCX is in two-parts:

- A monthly management fee whereby TIM recovers 100% of the costs of running TIM and TCX, subject to remaining within an annual budget that is pre-approved each year by the TCX Supervisory Board.
- An annual performance that depends on scores given by the TCX Supervisory on targets that are pre-agreed each year with TCX's Investors. In 2022 and 2021, the main targets were Corporate Management Quality (40%), Developmental Impact and Market Creation (40%), and Long Term Return (20%). For 2022, the resulting Performance Factor was 1.19 on a scale of 0 to 1.6 (2021: 1.44), as decided by the Supervisory Board on 15 February 2023. This variable Performance Factor directly affects the size of the bonus pool payable to TIM's employees (which is tied to the salary mass), and the profits accruing to TIM (which are tied to a fixed USD amount that is indexed to US inflation).

The above entails that a Performance Factor equal to zero would result in zero performance fees being paid to TIM and zero profits for TIM. This fee structure combines with the fact that TCX is TIM's sole permitted client to ensure that TIM's interest are always aligned with those of TCX's Investors.

TIM is a licensed Alternative Investment Fund Manager ("AIFM") that is subject to Directive 2011/61/EU (the Alternative Investment Fund Managers Directive or "AIFMD") as implemented in the Dutch Financial Markets Supervision Act (*Wet op het financieel toezicht* or "Wft"). The license has no time limits and is restricted to managing TCX only, for the benefit of professional investors only. The supervisory authorities are the Financial Markets Authority of The Netherlands with respect to TIM's conduct of business, and the Central Bank of The Netherlands with respect to the prudential rules that apply to TIM as an AIFM.<sup>9</sup>

## RISK MANAGEMENT

For integrated risk management purposes, TIM's Managing Board appoints each year the members of three committees that together constitute the **Risk Management Committee** of the Fund (a.k.a **RISCKO**). These

<sup>8</sup> Cardano Holding Ltd. and Cardano Risk Management B.V. are unrelated in terms of ownership to Stichting Cardano Development and Cardano Development B.V. (TIM's owner). The common use of the name "Cardano" relates to the fact that Cardano Development B.V. was owned by Cardano Holdings B.V. until 2013, at which time the company was acquired by Stichting Cardano Development, a stand-alone foundation created for that purpose. As a consequence of the acquisition, there remains a financial relationship between Cardano Holding Ltd. (as lender) and Stichting Cardano Development (as borrower).

<sup>9</sup> There are no prudential or regulatory capital rules that apply to TCX as an AIF.

committees are the Asset & Liability Management Committee (ALCO), the Counterparty Risk Management Committee (CRC), and the Operations Committee (OPCO).

RISKO manages, monitors and reports on all risk issues impacting TCX, and either sets or proposes (to the TCX Supervisory Board) policies and guidelines in the areas of balance-sheet management, capital allocation, financial performance, and operational risk and control. It also decides on all counterparty risk matters, including KYC/AMLTF and credit decisions.

Apart from members of the Managing Board and TIM staff members, RISKO's voting members include representatives of the Risk Monitor and the Administrator, plus an independent member. During 2022, the independent risk management professional received an annual remuneration of EUR 22,000 (excluding VAT). Other members were not separately remunerated for their services on RISKO.

### **Internalization of the functions outsourced to Cardano Risk Management B.V.**

At the May 2021 Annual General Meeting of TCX, the Fund's shareholders approved a proposal to internalize within TIM the functions performed by Cardano Risk Management B.V. since the Fund's launch in 2007. The proposal was rooted in the view that TCX is a risk management business that has become complex and sizeable enough to justify taking this step in the interest of TCX's investors. The project - whose deliveries accelerated in 2022 - will last through 2023 to ensure a smooth transition. For additional information, please see page 12 of this Annual Report.

## **SUPERVISORY BOARD**

The Fund's management is supervised by the TCX Supervisory Board, which is responsible for oversight and governance of the Fund's policies and strategy.<sup>10</sup>

Supervisory Board members are appointed by the General Meeting by simple majority vote for a renewable period of 4 years and receive an annual remuneration of EUR 30,000 (excluding VAT), except for the Chair who receives EUR 40,000 (excluding VAT).

Of the five current members, two are related to substantial investors in the Fund, including the Chair. The three other members are independent.

Supervisory Board meetings are attended by the members in person or by phone, and by the Managing Board and the Risk Monitor. Each meeting covers, inter-alia, a business and risk performance update regarding the Fund's portfolio. The Supervisory Board also debates and provides management guidance on all material issues regarding the Fund's business strategy, policies, product and market development, compliance, and governance. All matters presented to the Fund's investors are pre-discussed and approved by the Supervisory Board.

The Supervisory Board has appointed three sub-committees to help it discharge its oversight functions: a Risk Oversight Committee, an Audit & Compliance Committee, and a Remunerations & Nominations Committee. These committees operate pursuant to terms of reference determined by the Supervisory Board and the Fund's code of conduct, in line with the rules and regulations of the Dutch corporate governance code. The Supervisory Board meets regularly with these committees and uses a standardized agenda that allows the committee members to bring matters within their remit to the immediate attention of the Supervisory Board, without holding separate meetings.

- The **Risk Oversight Committee** assists the Supervisory Board in fulfilling its oversight responsibility towards TCX's investors and other stakeholders in relation to (a) the management of the market and counterparty risks that TCX is or may be exposed to, (b) the adequacy of TCX's capital and liquidity, and (c) the related agreements and policy frameworks. Members of the Risk Oversight Committee are not separately remunerated for their work on the committee.

---

<sup>10</sup> Given the powers of the TCX Supervisory Board as desired by TCX's investors, the Financial Markets Authority of The Netherlands holds the TCX Supervisory Board jointly and severally responsible with the TIM Managing Board for regulatory compliance by the Fund Manager.

- The **Audit & Compliance Committee** assists the Supervisory Board in fulfilling its oversight responsibility towards TCX's investor and other stakeholders in relation to (a) audit matters, including (i) the design and effectiveness of the Fund's internal control framework, (ii) the Fund's valuation policy, (iii) the relevance, completeness, accuracy and integrity of the Fund's financial statements, (iv) the management of the operational risks that the Fund is or may be exposed to, (v) the Fund's annual cost budgets, (vi) the selection, evaluation and continuation of the Fund's operational and financial auditors, and (b) compliance matters, including (i) the Fund and the Fund Manager's compliance with the laws and regulations that apply to them, (ii) the design and effectiveness of the Fund's compliance organization, policies, processes and controls; and (iii) the management of compliance incidents (except for people-related compliance incidents, since these fall within the remit of the Remuneration & Nominations Committee). Members of the Audit & Compliance Committee are not separately remunerated for their work on the committee.
- The **Remuneration & Nominations Committee** assists the Supervisory Board in fulfilling its oversight responsibility towards TCX's investors and other stakeholders in relation to (a) the selection of candidate Supervisory Board members to be proposed to the General Meeting, (b) the Fund's veto right concerning the selection of the Fund Manager's directors, (c) the selection, evaluation, and continuation of the External Compliance Officer, (d) the management of people-related whistle-blowing events, conflicts of interests, and breaches of the code of conduct, (e) the annual process of setting targets for the Fund Manager and appraising the Fund Manager's performance against these targets, and (f) the remuneration policy of the Fund Manager. Members of the Remuneration Committee are not separately remunerated for their work on the committee.

The Supervisory Board also appoints and oversees a Pricing Committee:

- The **Pricing Committee** is a unique feature of the TCX governance model, consisting of 5 independent professionals chosen for their expertise in emerging and frontier markets. The committee's purpose is to (a) decide on the 'benchmark' curves to be used by the Fund Manager for pricing and valuing TCX's derivative transactions (by approving (i) the source of the curves to be used as a basis and (ii) the NDF spreads for currencies where TCX is a 'price-maker'), (b) advise the Fund Manager on global macro-economic trends and risk issues, including the stress scenarios for the annual ICAAP review, and (c) advise the Supervisory Board on relevant topics on an ad-hoc basis (at the discretion of either party). All members are remunerated by way of an annual lump sum of EUR 30,000 (excluding VAT), except for the Chairman who receives EUR 45,000 (excluding VAT).<sup>11</sup>

Membership of the various committees is provided at the end of this Annual Report.

<sup>11</sup> To be clear, this means that the PC does not engage in the following activities: (i) setting the actual pricing on individual trades (since the Fund Manager has discretion to vary the pricing in response to portfolio, market, and risk conditions and to add credit, capital, and other charges or discounts, subject to other approvals), and (ii) imposing conditions or restrictions on e.g., the notional amounts or tenors that may be traded in specific currencies (since these are portfolio/risk management matters where the Fund Manager has end-responsibility).





## INVESTORS

### IMPORTANT NOTICE UNDER THE LAWS OF THE EU

Interests in TCX can only be acquired by entities who qualify as Professional Investors within the meaning of article 4:1 of Directive 2011/61/EU (the Alternative Investment Fund Managers Directive), as implemented in the Financial Markets Supervision Act (*Wet op het financieel toezicht*) of The Netherlands.

### IMPORTANT NOTICE UNDER THE LAWS OF THE USA

Interests in TCX have not been and will not be registered under the U.S. Securities Act of 1933, as amended, and can only be acquired by persons outside of the United States and may not be offered or sold in the United States or to or for the benefit of U.S. persons.

#### The Currency Exchange Fund N.V.

December 31, 2022

	Name of Investor	Country of Registration	Institution Type	Issuance Date	A-Shares held	As % of Shares held	Issuance Value (USD)	As % of Total Capital
1	Kreditanstalt für Wiederaufbau (KfW)	Germany	DFI	Multiple2	188	17,85%	101.586.820	10,1%
2	European Bank for Reconstruction and Development (EBRD)	UK	MDB	Multiple1	188	17,85%	100.759.918	10,0%
3	Nederlandse Financieringsmaatschappij voor Ontwikkelingslanden N.V. (FMO)	Netherlands	DFI	Multiple3	188	17,85%	99.757.432	9,9%
4	The European Investment Bank (EIB)	Luxembourg	MDB	Multiple4	120	11,40%	61.956.722	6,1%
5	International Finance Corporation (IFC)	USA	MDB	Multiple8	101	9,59%	64.305.828	6,4%
6	Agence Francaise de Developpement (AFD)	France	DFI	28/Nov/07	80	7,60%	40.592.702	4,0%
7	Development Bank of Southern Africa Ltd. (DBSA)	South Africa	DFI	01/Oct/07	40	3,80%	20.000.000	2,0%
8	OIKOCREDIT (Ecumenical Development Cooperative Society U.A.)	Netherlands	Impact Investor	Multiple5	27	2,56%	15.539.091	1,5%
9	Belgian Investment Company for Developing Countries SA/NV (BIO)	Belgium	DFI	01/Oct/07	20	1,90%	10.000.000	1,0%
10	Promotion et Participation pour la Cooperation Economique (PROPARCO)	France	DFI	Multiple7	17	1,61%	9.679.382	1,0%
11	ASN Microkredietpool	Netherlands	Impact Investor	29/Nov/19	15	1,42%	9.567.691	0,9%
12	MFJ Solutions LLC	USA	Impact Investor	26/Jun/09	14	1,33%	7.596.148	0,8%
13	European Fund for Southeast Europe (EFSE)	Luxembourg	Impact Investor	23/Jan/08	10	0,95%	5.048.299	0,5%
14	Compania Espanola de Financiacion del Desarrollo S.A. (COFIDES)	Spain	DFI	01/Oct/07	10	0,95%	5.000.000	0,5%
15	OPEC Fund for International Development (OFID)	Austria	DFI	08/Jul/08	10	0,95%	4.945.084	0,5%
16	EMF Microfinance Fund AGmK	Liechtenstein	Impact Investor	02/Jul/20	8	0,76%	4.931.815	0,5%
17	Blue Orchard Microfinance Fund (BOMF)	Luxembourg	Impact Investor	Multiple6	8	0,76%	4.914.799	0,5%
18	Stichting Oxfam Novb	Netherlands	Impact Investor	23/Jan/08	5	0,47%	2.524.149	0,3%
19	Grameen Credit Agricole Microfinance Foundation (GCAMF)	Luxembourg	Impact Investor	26/Aug/10	4	0,38%	2.395.146	0,2%
<b>Total Shareholders Equity Paid in</b>					<b>1.053</b>	<b>100,0%</b>	<b>571.101.025</b>	<b>56,7%</b>
<b>Subordinated Convertible Loans Disbursed (tier 1 capital)</b>								
20	Netherlands Minister for Development Cooperation (USD instrument)	Netherlands	Sovereign	17/Dec/07	EUR 50.000.000		70.617.623	7,0%
21	KfW on behalf of the German Government (BMZ) (USD instrument)	Germany	Sovereign	09/Oct/09	EUR 40.000.000		58.155.830	5,8%
	KfW on behalf of the German Government (BMZ) (USD instrument)	Germany	Sovereign	27/Dec/17	EUR 22.500.000		26.728.875	2,7%
	KfW on behalf of the German Government (BMZ) (USD instrument)	Germany	Sovereign	19/Dec/18	EUR 5.000.000		5.662.200	0,6%
22	KfW on behalf of the German Government (BMU) (USD instrument)	Germany	Sovereign	29/Dec/15	EUR 30.000.000		32.765.460	3,3%
	KfW on behalf of the German Government (BMU) (USD instrument)	Germany	Sovereign	19/Dec/18	EUR 20.000.000		22.648.000	2,2%
23	UK Foreign, Commonwealth & Development Office (FCDO) (GBP instrument)	UK	Sovereign	29/Mar/19	GBP 31.000.000		40.285.900	4,0%
24	Swiss State Secretariat for Economic Affairs (USD instrument)	Switzerland	Sovereign	Multiple9	USD 11.000.000		11.000.000	1,1%
	Promotion et Participation pour la Cooperation Economique (PROPARCO)	France	DFI	30/Nov/22	EUR 2.500.000		2.591.000	0,3%
<b>Total Subordinated Convertible Debt</b>							<b>270.454.888</b>	<b>26,8%</b>
<b>First Loss Loan Disbursed (tier 1 capital)</b>								
	Netherlands Minister for Development Cooperation (USD instrument)	Netherlands	Sovereign	42.725			10.900.830	1,1%
<b>Total Disbursed Capital</b>							<b>852.456.743</b>	<b>85%</b>
<b>25 KfW o.b.o. the EC (committed, undisbursed) (EUR instrument)</b>					<b>44147</b>	<b>EUR 145000000</b>	<b>155.296.134</b>	<b>15%</b>
<b>Total Disbursed &amp; Undisbursed/Committed Capital</b>							<b>1.007.752.876</b>	<b>100%</b>





## IN CONTROL STATEMENT

The Managing Board of TCX Investment Management Company B.V. (TIM or the Fund Manager) confirms that, as sole member of the Statutory Managing Board of The Currency Exchange Fund N.V. (TCX or the Fund), it is responsible for the risk management, internal control, integrity, and compliance systems of the Fund.

The Fund and TIM have entered into a long-term services agreement with each other and a number of operational partners to appropriately manage the Fund's systems and risks. These partners notably include Cardano Risk Management B.V. regarding risk measurement, monitoring, and reporting, DLM Finance B.V. regarding back office, valuation, accounting, and administration services, and Compliance Advies Financiële Ondernemingen regarding compliance matters. Together with TIM, these unrelated parties form the TCX Operational Group.

All material processes relating to TCX's operational management, including responsibilities assigned within the TCX Operational Group in each step of TCX's management processes and the risk assessment thereof, are described in the TCX Operational Guidelines. All of the Fund's operational processes are designed for compliance with the AIFMD and other applicable laws and regulations. These guidelines are reviewed annually at least, each review possibly resulting in amendments signed off by all members of the TCX Operational Group. All service agreements with members of the TCX Operational Group require compliance with these guidelines. Each member of the TCX Operational Group provides us with an annual statement of compliance and control concerning TCX's operations during the previous financial year.

TCX's operations are managed on the basis of strict segregation of duties, with the various members of the TCX Operational Group assuming specific responsibilities at various stages in the processes. As a result, TCX's processes have an elaborate system of built-in operational checks. All material data entry is subject to a minimum 4-eyes principle, either system-enforced or by means of written confirmations of required checks. The segregation of responsibilities is achieved, at its highest level, through independent reporting by the Fund Manager, Risk Monitor and External Compliance Officer to the TCX Supervisory Board.

All of TCX's core processes include periodic controls on the effectiveness of their functioning and compliance with agreed procedures. The reporting on these matters includes operational risk assessments submitted to RISKCO (quarterly) and the Supervisory Board (annually), and semi-annual compliance reports submitted to the Managing and Supervisory Boards. In 2022, no report identified the occurrence of an incident, control issue, or concern of any material nature.

There is also the independent annual operational audit, completed on 22 December 2022 by Solutional Netherlands B.V., the Fund's operational auditor. The scope of the operational audit was to report on the design and effectiveness of all material controls identified in the Operational Guidelines, including those related to payments, reconciliations, valuations, revenue recognition, and the preparation of its financial statements. The result was an unqualified audit opinion on the Fund's ISAE 3402 Type II report, which confirmed that the control framework of the Fund is designed appropriately and is operating effectively in all material aspects.

TCX performs regular risk assessments with input from all TCX Operational Group members. The main high-level risk issues affecting TCX are as follows:

- **Market risk:** TCX's business model, based on continued enforcement of currency risk diversification, requires good market information, careful balancing of exposures, and robust administrative systems. Inappropriate market risk management could lead, among other consequences, to mispricing of trades and misjudgment of the Fund's NAV. Among other means, TCX manages these risks through the involvement of an independent Pricing Committee, pricing and limit checks at the point of trading, and monthly valuation (or "plausibility") checks between the back-office and risk management. Risk management monitors the resulting market risk exposures on an ongoing basis, with weekly reporting by the Risk Monitor to the Fund Manager, monthly reporting to RISKCO, and periodic reporting to the Supervisory Board.
- **Credit risk:** TCX's business model requires active management of the counterparty credit risks that inevitably arise from its investment activities. TCX manages these risks through suitable client selection

criteria and by submitting regular credit reviews to RISKCO, imposing minimum credit rating standards, setting maximum credit limits, and using collateral, guarantees and/or hedges to minimize or reduce the exposure under these limits. Reporting frequency by the Risk Monitor is weekly to the Fund Manager, monthly to RISKCO, and periodically to the TCX Supervisory Board.

- **Operational risk, including fraud risk:** TCX is managed by a group of companies that rely on each other's compliance with pre-agreed procedures that are designed to mitigate all material operational risks, including the risks of payment and revenue recognition fraud, and of management over-ride of the Fund's controls (notably with respect to valuing the Fund's positions and preparing its financial statements). Material risks are that responsibilities are inappropriately allocated or misunderstood, that individuals collude to commit fraud or are subject to undue (external or management) influence, that the incentive and reward system encourages risk-taking, and that processes have been poorly designed and gaps exist in the control framework.

The risk above are mitigated through preparing periodic operational and fraud risk assessments; actioning plans to mitigate the risks; role segregation within and between the teams involved in the processes; minimum 4-eyes procedures on all core processes, preferably system-enforced; call-back procedures; setting payment limits and disabling payments to parties that have not been pre-authorized (system-enforced); mandatory incident and "near-miss" reporting; ensuring that control staff do not have commercial or financial targets; ensuring that all staff have qualitative (behavioral) targets; using targets pre-agreed with the Investors and scored by the TCX Supervisory Board to determine the size of TIM's bonus pool and profits; incorporating 'malus' and bonus deferral and 'claw-back' provisions in the staff's employment contracts; providing independent whistle-blowing channels; and promulgating and enforcing a Code of Conduct that includes integrity, compliance, and anti-bribery and corruption components.

- **Business continuity and IT (security) risks:** TCX is reliant on several IT systems run by the TCX Operational Group on both internal and cloud-based platforms, notably its back-office management systems, its risk monitoring systems, and its intranet and website. Mismanagement of IT risks could lead to business continuity and security issues, including system downtime, unauthorized access to the systems, data leakages, and data losses. Each member of the TCX Operational Group therefore has in place proven technical capabilities and tested disaster recovery plans to ensure the continuity and security of the Fund's business-critical systems and data sets.
- **Reputational risk:** TCX's business model gives rise to client, supplier, adviser, and employee acceptance issues that require careful attention to ensure that the Fund's reputation as a quality provider of financial services remains intact at all times. TCX manages these issues through know-your-client, anti-money laundering, and environmental & sustainability policies and procedures. Compliance with these procedures is reported on a quarterly basis to the TCX Supervisory Board.
- **Regulatory risk:** TCX operates in an environment that has become increasingly regulated since the 2008 financial crisis, in Europe, the United States, and elsewhere. These regulations have an impact at market, entity, and product levels, and their breadth, depth, and evolving nature pose an ongoing challenge for TCX. TCX manages these regulatory compliance risks by acquiring the necessary subject-matter expertise from legal, financial, and other advisers in support of its Internal Compliance Officer, who is responsible for the periodic review of all key agreements, policies, and processes to ensure full compliance at all times, with regular updates to RISKCO and the TCX Supervisory Board.

During 2022, TCX experienced no credit loss, no NAV valuation incidents, no compliance incidents, and no material operational incidents.

In conclusion, we therefore confirm:

- that TCX has designed an adequate set of documented management controls that are appropriate to its business;
- that, based on the periodic checks that have been performed and reported on by the TCX Operational Group, and based on our direct observations of processes on an on-going basis, it is our belief that these controls exist and have functioned effectively during the financial year ending 31 December 2022;



- that no material issues or incidents have occurred in the financial year ending 31 December 2022;
- that no activities have been reported to us that are in conflict with the TCX Code of Conduct (as adopted in the Operational guidelines and TIM's HR Manual); and
- that we do not expect to significantly adjust the basis of TCX's set-up in 2023, except in so far as it relates to internalization of the risk management function, as outlined on page 12 of this Annual Report.

#### **Impact of recent crises**

At this time, we do not see any need to adjust our policies, processes, systems, limits, and controls to cope with the direct and indirect consequences of the Covid and Ukraine crises.

Amsterdam, 24 April 2023

#### **The Managing Board of TCX Investment Management Company B.V.**

Ruurd Brouwer, Chief Executive Officer  
Othman Boukrami, Co-Chief Investment Officer  
Carlen Dam, Chief Risk Officer  
Bert van Lier, Co-Chief Investment Officer  
Brice Ropion, Chief Operating Officer



## STATEMENT OF THE DEPOSITARY

Amsterdam, February 21, 2023

### Considering that:

- The Bank of New York Mellon SA/NV, Amsterdam branch (“the depositary”) is appointed to act as depositary of The Currency Exchange Fund NV (“the fund”) in accordance with section 21(1) of the Alternative Investment Fund Managers Directive (2011/61/EU) (the “AIFM Directive”);
- Such appointment and the mutual rights and obligations of the fund manager and the depositary of the fund have been agreed upon in the depositary agreement dated the 21<sup>st</sup> of December 2015 between such parties, including the schedules to that agreement (the “depositary agreement”);
- The depositary issues this statement exclusively to the fund manager in relation to the activities of the fund manager and relates to the period 1<sup>st</sup> of January 2022 up to and including 31<sup>st</sup> of December 2022, (“the period”).

### Responsibilities of the Depositary

The depositary acts as a depositary within the meaning of the AIFM Directive and provide its services in accordance with the AIFM Directive, the EU implementing regulation, applicable Dutch laws and regulations and the policy rules issued by the European Securities and Markets Authority and the Dutch Financial Markets Authority (the “regulations”). The responsibilities of the depositary have been described in the agreement and include, in addition to the safekeeping, recordkeeping and ownership verification tasks (as defined in article 21(8) AIFM Directive), several monitoring and oversight tasks (as defined in article 21(7) and 21(9) AIFM Directive):

- Monitoring of the fund’s cash flows, including identification of significant and inconsistent cash flows and reconciliation of the cash flows with the fund’s administration;
- Ensuring that the sale, issue, re-purchase, redemption, cancellation and valuation of units or shares of the fund are carried out in accordance with the applicable national law and the fund documentation;
- Ensuring that in transactions involving the fund’s assets any consideration is remitted to the fund within the usual time limits;
- Validating if the fund is managed in compliance with the investment restrictions and leverage limits as defined in the fund documentation.

### Statement of the Depositary

The depositary has carried out such activities during the period as considered necessary to fulfil its responsibilities as depositary of the fund. The depositary is of the opinion that, based on the information made available and the explanations provided by the fund manager, in all material respects, the fund manager has carried out its activities which are in scope of the monitoring and oversight duties of the depositary, in accordance with the regulations and the fund documentation.

### Miscellaneous

This statement does not create, and is not intended to create, any right for a person or an entity that is not a party to the depositary agreement.

### Signed: Ton Tol

Head of Netherlands Trust and Depositary Services  
The Bank of New York Mellon SA/NV, Amsterdam branch

## MEMBERS OF THE SUPERVISORY BOARD

The appointment of Supervisory Board members is subject to the approval of the General Meeting and of the Financial Markets Authority of the Netherlands. The Supervisory Board presently consists of the following individuals:

### **Mrs. Lakshmi Shyam-Sunder, Chair**

Lakshmi Shyam-Sunder is Vice President and Chief Risk Officer of the World Bank Group, a position she has held since 2014. She was previously Chief Financial Officer and Director, Finance and Risk, at the Multilateral Investment Guarantee Agency (MIGA), the political and credit enhancement arm of the World Bank Group. Prior to joining MIGA in 2011, she held a variety of positions at the International Finance Corporation, including Director for Corporate Risk. She was co-founder of the Multilateral Banks' Global Emerging Markets (GEMS) Risk Data consortium. Before joining the World Bank Group, she was a faculty member of the MIT Sloan School of Management, where she had previously obtained a PhD in Finance. She also served on the faculty of the Tuck School of Business Administration. She has consulted for a wide range of institutions in the USA and in emerging markets, and has been on the board and finance and risk committees of several institutions in these markets. She joined the TCX Supervisory Board in May 2015 and has been serving as Chair since May 2022.

### **Mr. Marcus Fedder, Vice-Chair**

Marcus Fedder is a finance professional with more than 30 years of experience in development finance, capital markets and derivatives. He is a member of the Supervisory Board of Channel Holdings Ltd. and served until 2020 as a Director and Chair of the Audit Committee of the International Finance Facility for Immunization. He has been involved with microfinance since 2009, including co-founding a MIV, and currently serves on the investment committee of Alterfin, an impact investor. Prior to this, he built a 20-year career in international banking and development finance, including appointments as Vice Chair of Toronto Dominion Securities with responsibility for all businesses in Europe and Asia-Pacific, and Treasurer of the European Bank for Reconstruction and Development (EBRD). He also worked at the World Bank advising governments and central banks on debt and asset and liability management, and at CIBC and Deutsche Bank in interest rate and currency derivatives. He holds a PhD in Politics from the Freie Universitaet Berlin and post graduate degrees in international relations from Cambridge and the London School of Economics. He joined the TCX Supervisory Board in January 2017 and has been serving as Vice-Chair since May 2022.

### **Mr. Aigboje Aig-Imoukhuede**

Aigboje Aig-Imoukhuede is Chair of Coronation Capital Ltd., an Africa-focused equity and proprietary investment firm that he founded in 2014 and operates out of Nigeria and Mauritius. Between 2002 and 2013, he was Group Managing Director and CEO of Access Bank Plc., responsible for transforming the bank into a top-5 leadership position in Nigeria, with assets of USD 12 billion and 350 branches employing 20,000 staff in 9 countries. Prior to this he was an Executive Director at Guaranty Trust Bank Plc. (1991-2002). His achievements include chairing presidential and banking industry committees in Nigeria and co-founding FMDQ, an OTC exchange that specializes in fixed income securities and derivatives. His awards include Commander of the Order of the Niger, Ernst & Young Entrepreneur of the Year (West Africa), and African Banker Magazine's "African Banker of the Year". He is a past President of the Nigeria Stock Exchange and an impact philanthropist. He holds law degrees from the University of Benin and the Nigerian Law School, and an EMBA jointly awarded by the London School of Economics & NYU. He joined the TCX Supervisory Board in December 2015.

## **Mr. Tim Armbruster**

Tim Armbruster is the Senior Vice President and Group Treasurer of KfW since March 2020. He began his professional career in 1996 followed by various positions in markets and treasury departments in Germany, Ireland, the US and Luxemburg. Before he joined KfW Group, he was Treasurer of the Federal Government's Winddown Institution (FMS-WM Group) and Aareal Bank AG. He served as a Member of the Supervisory Board and Deputy Chair of FMS Wertmanagement Service GmbH (2012-2019). He joined the TCX Supervisory Board in May 2022

## **Ms. Sarah Russell**

Sarah Russell joined the TCX Supervisory Board in November 2019. Prior to that Ms. Russell was CEO of Aegon Asset Management Holdings N.V. (2010-2019), and a member of the Management Board of Aegon N.V. (2016-2019). Before joining Aegon, she built a 14-year career at ABN AMRO Bank, culminating in her appointment as Senior Executive Vice President and CEO of ABN AMRO Asset Management Holdings N.V., a position that she held from 2006 to 2008. Among her other roles at ABN AMRO Bank she served as Managing Director and CFO of the Wholesale Clients Business Unit (2004-2005) and Global Head of Financial Markets Research and Financial Markets Infrastructure Support (2002-2004). In her non-executive capacity, Ms. Russell was a member of the Board of Directors of Nordea Bank Abp (2010-2022) with memberships held in its Audit Committee (with a Chair position from 2017 to March 2021) and the Board Remuneration and People Committee and she was a member of the Supervisory Board of Ostrum Asset Management S.A. (2019-2022). Ms. Russell is currently a member of the Supervisory Board of APG Group N.V. (since 2021) and member of the Audit and Risk Committee, as well as Vice-Chair of the Supervisory Board of APG Asset Management N.V. (since 2021), Chair of the Remuneration and Nomination Committee, and member of the Finance Committee. In 2022 she became member of the Supervisory Board of ABN AMRO N.V., as well as Chair of its Audit Committee. Previously, she has served as Vice-Chair of the Supervisory Board of La Banque Postale Asset Management S.A. (2015-2019) and as a member of the Supervisory Board of Nederlandse Investeringsinstelling N.V. (2015-2019). Ms. Russell holds a master's of Applied Finance from Macquarie University in Sydney, Australia, and is a Fellow of the Australian Institute of Company Directors.

## **Expiry dates of the mandates of the members of the Supervisory Board**

Mrs. Shyam-Sunder	May 2023 (end of second term + 1 year extension approved at the May 2022 AGM)
Mr. Aig-Imoukhuede	May 2024 (end of second term)
Ms. Russell	May 2024 (renewable for a second term)
Mr. Fedder	May 2025 (end of second term)
Mr. Tim Armbruster	May 2026 (renewable for a second term)

## **Members of the sub-committees of the Supervisory Board**

- **Audit & Compliance Committee**  
Ms. Sarah Russell (Chair)  
Mr. Marcus Fedder
- **Remuneration & Nominations Committee**  
Ms. Sarah Russell (Chair)  
Mrs. Lakshmi Shyam-Sunder
- **Risk Oversight Committee**  
Mr. Marcus Fedder (Chair)  
Mr. Aigboje Aig-Imoukhuede  
Mr. Tim Armbruster





## MEMBERS OF THE MANAGING BOARD

The Fund's sole director and managing board member is its Fund Manager, TCX Investment Management Company B.V. ("TIM"). TIM has its own Managing Board, consisting of five statutory directors. Their appointment is subject to the approval of the TCX Supervisory Board and the Financial Markets Authority of the Netherlands. The current directors are:

### **Mr. Ruurd Brouwer, Chief Executive Officer**

Ruurd Brouwer joined TIM in 2014 and has overall responsibility for the management of the Fund, including its growth strategy, capital structure, and investor relations. Prior to joining TIM, he worked for 16 years at FMO, the Dutch development bank, in various positions including Director of Investment & Mission Review (and Chair of FMO's Credit Committee), Director of Financial Institutions, and Director of Africa & Government Funds. Prior to FMO he was a Policy Official at the Dutch Ministry of Foreign Affairs. He has been active as a supervisory board member and investment committee member of financial institutions and investment funds focused on Africa, and as a guest lecturer at the Erasmus School of Economics and The Hague University of Applied Sciences, teaching on financial stability, banking, risk management, and developing economies. He holds a master's in International Finance from the University of Amsterdam.

### **Mr. Othman Boukrami, co-Chief Investment Officer (Head of Trading)**

Othman Boukrami joined TIM in 2009. His responsibilities include managing TCX's derivatives pricing and trading activities, and the Fund's portfolio and liquidity. Prior to joining TIM he worked for four years at the African Development Bank, first as a Senior Risk Officer and then as a Senior Investment Officer. He was previously a Senior Treasury Dealer at Citigroup. He holds a bachelor's in Economics & Finance from the École Supérieure de Commerce in Algiers, a master's in Banking & Finance from the University of Lyon, a master's in International Securities, Investment & Banking from the University of Reading, and a PhD in Finance from the University of Lyon.

### **Mrs. Carien Dam, Chief Risk Officer**

Carien Dam joined TIM in 2023 as Chief Risk Officer. Before joining TIM she worked for nearly 15 years in Rabobank, with her last position being the Global Head of Risk Management Financial Markets (since 2013). She started her career in 1994 in ABN AMRO Bank working in various roles, including market risk management and asset and liability management. Between 2001 and 2003 she worked for FMO as Head of Risk Management, and from 2003 till 2005 she was Deputy General Manager for ProCreditBank Bosnia & Hercegovina. Carien holds a master's in Econometrics from the Erasmus University in Rotterdam.

### **Mr. Bert van Lier, co-Chief Investment Officer (Head of Structuring)**

Bert van Lier joined TIM in 2008 and is responsible for TCX's commercial activities, including origination, structuring, and portfolio management and strategy. Prior to joining TIM, he built a varied 18-year career at ING Bank, including 5 years as Managing Director responsible for Structured Product Sales in The Netherlands, and Global Equity Derivative Sales. He holds an MBA from Tilburg University and an Executive Master of Finance and Control from VU University Amsterdam.

### **Mr. Brice Ropion, Chief Operating Officer**

Brice Ropion joined TIM in 2010 and is responsible for TCX's non-commercial activities, including regulatory compliance, fund operations and valuation, financial administration, accounting and reporting, and audit and control. Prior to joining TIM, he built a 20-year career at ABN AMRO Bank, including 8 years in portfolio and risk management functions with a focus on financial institutions, and 12 years in commercial and branch management functions in the bank's international division. He holds a master's in International Affairs from George Washington University, and a bachelor's in Economics and Political Science from Cornell University.

## MEMBERS OF THE PRICING COMMITTEE

The members of the Pricing Committee are appointed by the TCX Supervisory Board. The current members are as follows:

### **Mr. Nikolaus Siegfried, Chair**

Nikolaus Siegfried has been a partner at SlowerCapital in Tübingen, Germany, since 2013. SlowerCapital specializes on economies of frontier markets, including country risk, banking sector and financial market development. Nikolaus also advises clients on private equity and loan deals in these markets. Before setting up SlowerCapital, Nikolaus was Associate Director at LandesBank Berlin (2010-2013), consultant at Artemis Investment Management (2009-2010), Assistant Portfolio Manager/Economist at Thames River Capital LLP (2005-2009), Economist at the European Central Bank (2002-2005), and Research Associate at Merrill Lynch (2001). Nikolaus holds a PhD in Economics from the University of Hamburg and a master's in Middle-East Studies from the Free University, Berlin. He joined the TCX Pricing Committee in September 2010 and was appointed Chairman in December 2017.

### **Mr. Sebastian Espinosa**

Sebastian Espinosa is the Managing Director of White Oak Advisory Limited, a firm he co-founded in 2009. White Oak Advisory is one of the world's leading providers of financial advice on matters relating to sovereign debt and public finances, and its team has advised on many of the sovereign debt workouts to take place in the emerging markets over the last 20 years. Its clients include governments, central banks, state-owned enterprises, and financial institutions active in the sovereign debt markets. Prior to this, he was Managing Director of Houlihan Lokey in London, a firm specialized in providing financial advice on sovereign debt restructuring, liability management, and other debt and funding-related matters. From 2000 to 2005, he was a Director in the Sovereign Advisory unit of UBS Investment Bank in London. His earlier career was spent as an Associate Director in the Sovereign Ratings team of Fitch IBCA Ltd. and as an Economist in The Economist Intelligence Unit Ltd (EIU). He holds a M.Phil in Development Studies and a BA in Philosophy with Politics from the University of Sussex. He joined the TCX Pricing Committee in February 2018.

### **Mr. Peter Redward**

Peter Redward started Redward Associates Ltd. in September 2011. Based on Singapore, Redward Associates provides independent research on economic and financial market developments in the Asia-Pacific region. Their clients include a range of investment managers – both leveraged and unleveraged – sovereign wealth funds and banks, located in major global financial centers. Prior to this, he was managing director, head of EM Asia Research at Barclays Capital (2006-2011), portfolio manager at Citadel Investment Group (2005-2006), director, head of EM Currency Research at Deutsche Bank AG (1998-2005), and senior research officer at the Reserve Bank of New Zealand (1995-1998). He holds a master's in Economics from the University of Auckland, and joined the Pricing Committee in September 2016. He joined the TCX Pricing Committee in September 2016.

### **Mr. Louis Sabatino**

Louis Sabatino is a former Director and Head of Africa Debt Capital Markets for WestLB. Operating out of Johannesburg, he spent 14 years at WestLB, tasked with developing a non-South African trading and capital markets presence in Africa, including creating and managing active trading books in bonds, money market and derivatives in 12 currencies, and trading local treasury debt and hard currency trade debt, Eurobonds and distressed debt in 20 other African countries. Prior to this, he headed the Africa desk and the FX Treasury at Standard Merchant Bank. On leaving WestLB, he became a consultant to Exotix Partners LLP in Johannesburg, to help them implement a local currency fixed income trading capability across the Sub Saharan African domestic capital markets. Currently self-employed, he serves as a non-executive director and investment committee member of Africa GFI Fund Advisors in Mauritius, a fund focused on the African local markets, and on the investment committee of Frontier Clearing Management B.V., a fund that issues credit support guarantees in support of inter-bank trading activities in the emerging markets. He joined the Pricing Committee in October 2013.



## **Mr. Vincenzo Zinni**

Vincenzo Zinni started his banking career in 1997 when he joined the Emerging Markets research team at Credit Suisse First Boston (CSFB) and helped build an econometric model able to predict emerging markets currency crises. He then moved into the Global Strategy team where he worked with Jonathan Wilmot and contributed to the development of the Risk Appetite Index and the World Wealth Index. Both indexes were widely used in CSFB and the industry for positioning and investment purposes. In 2000, he moved to CSFB's Emerging Markets Sales and Distribution team where he held various positions. In 2006, he was promoted to Head of EMEA Emerging Markets Sales, a position he held until 2009 when he was promoted to run the CEEMEA Sales and Coverage team, a position he held until 2014 when he left Credit Suisse. In March 2015, he joined the Noble Group, where he is the Head of Asia Treasury and Trade Finance and held positions in London and eventually moved to Singapore to run the group. In July 2017 Vincenzo left Noble Group and moved back to the UK and set up his own Advisory business focusing on the Commodity Markets. Vincenzo has been actively involved in Empower, an emerging markets charity. He holds a master's in Economics from CORIPE in Turin, and a Degree in Economics and Banking from the University of Siena. He joined the Pricing Committee in June 2014.

## **Expiry dates of the mandates of the members of the Pricing Committee**

Mr. Sabatino	December 2023 (renewable in 3-year increments up to 2028)
Mr. Zinni	December 2023 (renewable in 3-year increments up to 2029)
Mr. Redward	December 2024 (renewable in 3-year increments up to 2031)
Mr. Espinosa	December 2024 (renewable in 3-year increments up to 2033)
Mr. Siegfried	December 2025 (not renewable)



## FINANCIAL STATEMENTS

### Statement of financial position

(As of 31 December)

(All amounts in thousands USD)	Notes	2022	2021
<b>Assets</b>			
Cash and cash equivalents	5	46,845	128,053
Financial assets at fair value through profit or loss	6	1,298,967	1,167,951
Cash collateral given	7	197,820	116,012
Receivables EC Pricing Facility	20	5,137	1,459
Other receivables	8	790	367
<b>Total assets</b>		<b>1,549,559</b>	<b>1,413,842</b>
<b>Liabilities</b>			
Cash collateral received	7	58,077	34,721
Financial liabilities at fair value through profit or loss	11	353,945	248,587
Accrued expenses and other payables	12	9,195	8,572
Deferred EC Pricing Facility Income	20	4,539	1,314
Subsidies granted by third parties	14	2,279	5,333
Deferred LIFT subsidy income	15	4,760	5,642
Subordinated convertible debt	16	183,777	186,238
Grants linked to the subordinated convertible debt	16	83,900	83,294
First loss loan	17	9,135	8,546
Grants linked to the First loss loan	17	1,766	2,355
<b>Total liabilities (excluding Class A shares)</b>		<b>711,373</b>	<b>584,602</b>
<b>Net assets attributable to holders of redeemable shares Class A</b>	18	<b>838,186</b>	<b>829,240</b>
<b>Total liabilities</b>		<b>1,549,559</b>	<b>1,414,142</b>

*The accompanying notes are an integral part of these financial statements*



## Statement of comprehensive income

(For the year ended 31 December)

(All amounts in thousands USD)	Notes	2022	2021
<b>Investment result</b>			
Net result on financial instruments at fair value through profit or loss	21	19,638	125,603
Interest income	23	9,942	4,218
Realized LIFT subsidy income	15	3,936	3,206
Realized EC Pricing Facility income	20	452	146
		<u>33,968</u>	<u>133,173</u>
<b>Other results</b>			
Distributions to the Donors	13	(5,970)	(5,587)
Foreign currency translation	22	(3,909)	(4,802)
Interest expense		-	(228)
		<u>(9,879)</u>	<u>(10,617)</u>
<b>Operational expenses</b>			
Management fee	9	(9,962)	(8,638)
Performance fee	9	(1,738)	(2,350)
Governance expenses	9	(333)	(465)
Risk monitoring fee	10	(1,132)	(1,403)
Audit fees	10	(495)	(481)
Depositary fees	10	(206)	(209)
Other general expenses	24	(1,277)	(1,657)
		<u>(15,143)</u>	<u>(15,203)</u>
<b>Operating income</b>		<b>8,946</b>	<b>107,353</b>
Distribution to holders of redeemable shares Class A	18	-	-
<b>Change in net assets resulting from operations attributable to holders of redeemable shares Class A</b>		<b>8,946</b>	<b>107,353</b>

*The accompanying notes are an integral part of these financial statements*



## Statement of cash flows

(For the year ended 31 December)

(All amounts in thousands USD)	Notes	2022	2021
<b>Cash flow from operating activities</b>			
Net receipts from Primary, Trading and Hedging financial instruments at FVtPL		101,253	85,532
Net payment for Debt instruments at FVtPL		(107,273)	22,244
Interest received		9,428	4,498
Risk monitoring fee paid		(1,132)	(1,403)
Management fee paid		(10,078)	(8,707)
Performance fee paid		(2,118)	(1,758)
Audit fees paid		(395)	(448)
Governance expenses paid		(333)	(465)
Depositary fees paid		(206)	(209)
Cash collateral (paid)/received		(58,452)	16,591
Transfers of Donor Assets		(4,950)	(4,495)
Other general expenses paid		(1,188)	(1,670)
<b>Net cash flow generated from (used in) operating activities</b>		<b>(75,444)</b>	<b>109,710</b>
<b>Cash flow from financing activities</b>			
Proceeds from issued redeemable shares Class A		-	20,119
Payments for redemption of redeemable shares Class A		-	(93,770)
Proceeds from Subordinated Convertible Debt	16	2,591	10,000
Repayments of subordinated loan		-	(5,553)
<b>Net cash flow generated from (used in) financing activities</b>		<b>2,591</b>	<b>(69,204)</b>
<b>Net cash flow generated during the year</b>		<b>(72,853)</b>	<b>40,506</b>
Cash and cash equivalents at the beginning of the year		128,053	92,722
Foreign currency translation of cash positions		(8,355)	(5,175)
<b>Cash and cash equivalents at end of period</b>	<b>5</b>	<b>46,845</b>	<b>128,053</b>
<b>Analysis of cash and cash equivalents</b>			
Cash at Citibank		16,746	49,614
Cash at BNY Mellon		2,036	12,447
Money Market funds		28,063	65,992
<b>Cash and cash equivalents at end of period</b>	<b>5</b>	<b>46,845</b>	<b>128,053</b>

*The accompanying notes are an integral part of these financial statements*



## Statement of changes in net assets attributable to holders of redeemable shares Class A

The movements in shares Class A are as follows:

(For the year ended 31 December)

(All amounts in thousands USD)

	Amounts		Number of shares	
	2022	2021	2022	2021
Net assets at beginning of year	829,240	795,538	1,053	1,157
Issuance of shares	-	20,119	-	29
Repurchase of shares	-	(93,770)	-	(133)
Net change from transactions with shareholders	-	(73,651)	-	(104)
Change in net assets from operations	8,946	107,353		
<b>Net assets at end of the year Class A</b>	<b>838,186</b>	<b>829,240</b>	<b>1,053</b>	<b>1,053</b>

*The accompanying notes are an integral part of these financial statements*

## Notes to the Financial Statements

### 1. General information

The Currency Exchange Fund N.V. ("TCX" or "the Fund") is a public limited liability company incorporated and existing under the laws of The Netherlands, Chamber of Commerce number 34277912. The Fund was established in September 2007 and started commercial operations in January 2008.

The Fund's objective is to invest, along commercially sound principles, in long-term emerging-market currency and interest rate derivatives, with the purpose of developing local currency funding options, predominantly for its investors and their clients. TCX's counterparties utilize the products offered in the mitigation of currency and interest rate mismatches.

### 2. Events after the reporting period

- On 9 January 2023, The Fund Manager with the concurrence of the TCX Supervisory Board appointed Mrs. Carien Dam as CRO and Managing Board member, replacing the previous CRO who resigned effective 10 June 2022. In the interim period, the CRO role was performed by Mr. Brice Ropion, COO.
- On 15 February 2023, based on the targets approved by TCX's Investors at the May 2022 AGM, the TCX Supervisory Board scored the Fund Manager 1.19 on a scale of 0 to 1.6 for its performance in 2022 (2021: 1.44). Consequently, the performance fee to be paid by TCX to the Fund Manager in respect of 2022 totals USD 1,79 million compared to USD 1.70 million accrued in the year-end accounts. For additional information, see Note 9.

### 3. Statement of compliance

The financial statements of the Fund have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU), Part 9 of Book 2 of The Netherlands Civil Code and the Dutch Act on Financial Supervision. Refer to Note 31 and 32 for a further explanation of significant accounting policies, estimates and judgments.

The financial statements were authorized for issue by the Managing Board on 24 April 2023.

### 4. Financial risk management

#### Investment objective

The Fund is an innovative and unique capital markets development initiative, focusing entirely on long-term local currency and interest rate derivatives in frontier and emerging market currencies. It presents a compelling investment opportunity for parties with a keen interest in the sustainable development of capital markets in developing countries. By investing in currency and interest rate derivatives, the Fund facilitates the provision of local currency funding to borrowers in developing countries.

Classical providers of currency and interest rate hedging in international financial markets typically operate on a matched book principle, which generally limits them to offering products for which there is a matched and liquid demand and supply. This model breaks down in most developing countries, where demand for long-term local currency exposure is illiquid or even inexistent. As a result, these products are not offered or are offered at pre-emptively high rates.

TCX is based on a fundamentally different concept, which is to assume unmatched exposures mitigated through portfolio diversification on a global scale, rather than by matching supply and demand on a

currency by currency basis. This allows TCX to absorb currency and interest rate risks in highly illiquid currencies and maturities regardless of external demand.

Given that the key to this strategy is a wide diversification of risks, there are compelling mutual benefits for investors to pool their local currency activities and exposures, thereby achieving a more complete risk spreading and efficiencies of scale and scope.

## **Investment policy**

TCX focuses exclusively on cross-currency interest rate swaps and forwards, risk-managed through internal portfolio diversification and hedging.

The Fund's transactions are mostly invested through or with its investors, which have established local networks in emerging markets. TCX has agreed preferential access to its transaction capacity with its investors, but it may also trade with non-investor counterparties, notably the clients and assignees of the investors.

## **Investment process**

Sound capital and risk management is essential to TCX, for it is the rationale behind its business model and critical to maintaining its credit rating. TCX has an S&P credit rating of A and a Moody's credit rating of A1, both with a stable outlook. These ratings are underpinned by a sizeable capital pool and strict limits on the type and amount of risks that the Fund is allowed to take on. Together with the Cardano Risk Management B.V., the Fund's external Risk Monitor, TCX Investment Management Company B.V. ("TIM") monitors the portfolio on a daily basis, and produces weekly reports to confirm the Fund's compliance with agreed risk limits and capital ratios.

To calculate the capital requirements, TCX uses models inspired by the Basel regulatory capital framework for banks, adjusted for the activities and business of TCX (no specific regulatory capital regime applies to TCX). This customized framework is detailed in the Fund's Risk Charter. The calculation methods generally follow the Basel internal model approach, unless lack of market data prevents this or unless specific reasons exist to depart from this model due to the nature of TCX's business. Where market data is not available, required capital is calculated based on stress scenarios, in conformity with market practice when dealing with statistical uncertainties.

TCX's primary risk mitigating instrument is exposure diversification, whereby the portfolio is spread over a large number of currencies and interest rates, and strict limits are in place to ensure that the portfolio does not become overly concentrated per counterparty, currency, and region. Other active risk mitigating measures include the (partial) hedging of exposures through the derivative markets.

TCX has two stop-loss triggers: one requiring the Fund Manager to operate more prudently in its assumption of risk and to redress its capital ratios in a going-concern manner, the other triggering cessation of investment activities and ultimately, if desired by the investors, a managed liquidation of the portfolio (the "Liquidation Trigger Event" – see Note 18).

TCX's risk management is based on the Risk Charter approved by the Investors. The Risk Charter contains, amongst others:

- a description of the risks TCX assumes in its business;
- the policies and procedures concerning risk management;
- the applicable limit structure and investment restrictions.

## Risk analysis

The Fund's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. These are discussed below.

### Market risk

The most important risk that TCX is exposed to is market risk, constituting 93% (2021: 93%) of the Fund's Risk Weighted Assets. TCX defines market risk as the risk of fluctuation in the valuation of its financial instruments caused by adverse market movements and market illiquidity.

The Fund's financial instruments consisted of the following groups at year end:

(All amounts in thousands USD)

	2022		2021	
	Fair Value in USD	% of NAV	Fair Value in USD	% of NAV
Cross currency swaps	(191,315)	(22.8)	(121,409)	(14.6)
Forwards	13,323	1.6	16,217	2.0
Commercial papers	771,041	92.0	578,203	69.7
Floating rate notes	176,049	21.0	194,970	23.5
Fixed rate bonds	166,390	19.9	241,686	29.1
Frontier Clearing Fund Junior	9,534	1.1	9,697	1.2
<b>Financial instruments at fair value through profit or loss</b>	<b>945,022</b>	<b>112.8</b>	<b>919,364</b>	<b>110.9</b>
Cash collateral given	197,820	23.6	116,012	14.0
Cash collateral received	(58,077)	(6.9)	(34,721)	(4.2)
Cash and cash equivalents	46,845	5.6	128,053	15.4
Subsidies granted by third-parties	(2,279)	(0.3)	(5,333)	(0.6)
EC Pricing facility income	598	0.1	145	0.0
Deferred LIFT subsidy income	(4,760)	(0.6)	(5,642)	(0.7)
Other	(8,405)	(1.0)	(8,205)	(0.9)
Subordinated convertible debt	(183,777)	(22.4)	(186,238)	(22.6)
Grants linked to the subordinated convertible debt	(83,900)	(9.6)	(83,294)	(10.0)
First loss loan	(10,901)	(1.3)	(10,901)	(1.3)
<b>Net assets attributable to holders of redeemable shares Class A</b>	<b>838,186</b>	<b>100.0</b>	<b>829,240</b>	<b>100.0</b>

TCX is subject to market risk on these financial instruments by taking on interest rate and currency risks in its transactions. This market risk is managed in separated risk books. This methodology allows segregating risk measurement techniques depending on the depth and quality of available market data. The more extensive the available data, the more sophisticated the measurement technique available.



TCX's market risks are managed in four books:

1. currency exchange rate risks;
2. interest rate risk in mature markets;
3. interest rate risks in frontier and emerging markets;
4. spread risk between local benchmark and non-deliverable forward ("NDF") rates.<sup>1</sup>

The book structure is built using well-established transfer pricing techniques. Any TCX transaction can give rise to different entries in each of the four risk books. The different risk books are aggregated into a combined risk model. Whereas sufficient market data is available for currency risks (Book 1) and interest rate risk in mature markets (Book 2) to support statistical methods, historical data for local emerging market interest rates (Book 3) and spread risk between local benchmark and NDF rates (Book 4) are insufficiently available for these methods and therefore these risks are assessed using stress testing.

The risk measurement horizon for all books is one month, and results are annualized using the usual calibration multiples in accordance with the Basel guidelines.

The market risk of TCX is measured and monitored using four major methods:

- Expected Tail Loss ("ETL");
- Value at Risk ("VaR");
- Stress testing;
- Monitoring of exposures against strict concentration limits.

Expected Tail Loss and Value at Risk: The ETL and VaR methods are useful when sufficient observable data is available to estimate extreme events. Both are internationally accepted risk measures that are recognized for reporting market risk to national supervisory authorities and are used for performance measurement and asset-liability management, among other purposes.

ETL and VaR measures incorporate three parameters:

- Confidence level;
- Holding or unwinding period;
- Information period.

The ETL method is applied to TCX's FX risk book (Book 1). For this book, the ETL is based on the average of the 1% worst (tail) events observed over all one-month periods since January 1996. This approach is used because the 99% confidence level lies somewhere between the fourth and fifth worst months, and the intervals between the points in the tail are large enough that intervening points could lead to substantial jumps in the measure. Thus, the averaging method is recommended to stabilize the risk measure while doing justice to the full size of the tail.

The VaR method is applied to TCX's established market interest rate book (Book 2) where historical data is abundant enough to estimate the impact of extreme events through historical simulation using monthly historical price changes since January 1996. This approach yields a distribution of changes in values, with the VaR determined at the 99% confidence level.

---

<sup>1</sup> The NDF spread that TCX applies refers to the spread risk between domestic and international interest rates over the life of the swap. The spread applies because TCX prices its non-deliverable swaps off local onshore benchmarks (e.g. a Treasury bill rate), which do not incorporate the country risk, liquidity risk, and other risk premiums required by offshore investors.

For the purpose of these financial statement disclosures, it is important to note that there are well known limitations to using history based VaR or ETL:

- The data provided reflects positions at year-end that do not necessarily reflect the risk positions held at other moments in time. As disclosed in the chapter “Investment Processes”, the Risk Monitor quantifies and monitors the exposures of the Fund on a daily basis;
- The VaR and ETL are statistical methods based on a distribution from historical observations. Therefore, it is possible that there could be, in some future period, an observation of a higher loss.

**Stress testing:** There is no objective justification to assume that historic returns are exemplary for worst case scenarios in the future, especially in the case of emerging markets where unprecedented events are even more likely. Therefore, stress tests are performed on most relevant variables for the TCX portfolio, notably currency and interest rates. Stress testing involves the modeling of unprecedented events and therefore market movements beyond historically observed shocks. The purpose of stress testing is to create awareness of the consolidated event sensitivity of TCX’s position, and to set limits at portfolio level (stress testing is not meant for limit setting purposes on a book-by-book basis). In the risk management of TCX, three types of stress tests are used:

- Combination of historical stress tests;
- Macroeconomic scenarios (commodity prices, global melt down, etc.);
- Sensitivity analyses.

Stress testing is in particular applied to calculating the value at risk in TCX’s local currency interest rate book (Book 3) and TCX’s use of NDF spreads (Book 4), since historical data is insufficiently available to estimate the value at risk in these books.

At 31 December 2022, taking the foregoing methodologies into account, the Fund had an aggregate value at risk for market related factors (by convention, its market VaR) of USD 97.2 million (2021: USD 92.7 million), consisting of the following:

(All amounts in USD millions)	2022	2021
Foreign currency exchange risk (Book 1)	62.8	61.9
Interest rate risk mature market (Book 2)	7.9	5.7
Interest rate risk emerging markets (Book 3)	26.8	24.7
NDF (Non-Deliverable Forward) spread (Book 4)	2.2	3.1
Adjustment for cross-effects	(2.5)	(2.7)
<b>Total</b>	<b>97.2</b>	<b>92.7</b>

**Currency concentration limits:** a fundamental premise of TCX is that geographic diversification reduces currency and interest rate risks at portfolio level. This diversification effect can only be achieved when TCX avoids over-exposure in any one currency or region. To prevent this, concentration limits are set on the notional of the contracts for each currency, set relative to (a) TCX’s available capital, (b) its total portfolio size, and (c) an absolute number as defined by the size and liquidity of the currency market. The maximum net amount invested in a country or currency is the lesser of:

- 25% of total capital (including share capital and retained earnings); and
- 10% of the aggregate FX exposures in DAC currencies of the (fictitious) portfolio where TCX would have zero growth buffer (i.e., 10% of “potential maximum net portfolio”)

All limits are subject to periodic review.

Deductions from the gross exposure amount (netting)<sup>2</sup> is equal to 100% of the nominal amount of a related hedge<sup>3</sup> if the following conditions are met:

- there are no cross-border risks between the hedged exposure and the hedge;
- the counterparty to the hedge has a minimum rating of BBB and the transaction is appropriately collateralized, taking into account wrong-way risks if any in the determination of key counterparty credit terms such as frequency of valuation, independent amount and minimum transfer amount.

In case a hedging investment does not meet these criteria, no deductions to the exposure amounts are allowed unless approved by RISKCO on a case by case basis. Moreover, TCX's gross currency exposure (before netting deductions) may not exceed 40% of total capital.

Separately, a capital buffer is added to cover the mismatch and replacement risks of hedged portfolios that would otherwise benefit from 100% capital relief.

The application of the currency concentration limit as provided above means that on 31 December 2022 each individual currency has a notional limit of USD 308.6 million (2021: USD 290.9 million). The Fund's largest exposures per currency compared to this limit (net of offsetting hedging transactions) were as follows:

	<b>% of limit 31 December 2022</b>	<b>% of limit 31 December 2021</b>
Vietnamese dong	48.5	23.7
Serbian Dinar	47.6	43.0
Uzbek Sum	46.3	40.0
Tanzanian Shilling	32.4	21.3
Dominican Republic Peso	31.9	25.2

Regional concentration limits: the diversification over the regions is enforced through limits for maximum regional exposures. Regional limits are determined depending on the possibilities to diversify within the region. The table below shows the concentration limits per region calculated based on notional amounts per region divided by the total portfolio notional amount (net of hedging transactions):

	<b>Maximum regional concentrations</b>	<b>Actual concentrations 31 December 2022</b>	<b>Actual concentrations 31 December 2021</b>
Emerging Europe / Central Asia	40%	28%	38%
Sub-Saharan Africa	50%	26%	22%
Latin America	40%	23%	21%
Asia	40%	19%	15%
Middle East / North Africa	30%	4%	4%

<sup>2</sup> The nominal exposure relief of a hedge is applied for the term of the hedged exposure only.

<sup>3</sup> Transactions qualify as a hedge only if they are in the same local currency as the hedged exposure. The use of proxy hedging for concentration or market risk capital relief is explicitly ruled out.

**Hedging:** Hedging is defined as short or long cross-currency derivatives entered into for concentration and balance sheet management purposes. The Fund has the following hedging transactions as of 31 December:

(All amounts in thousands USD)	Fair value 2022	Notional value 2022	Fair value 2021	Notional value 2021
<i>Short USD</i>				
Algerian Dinars	(3,198)	55,608	(2,069)	31,000
Armenian Dram	(4,936)	30,053	181	37,053
Argentine Peso	(161)	2,250	(60)	1,074
Azerbaijani Manat	(1,932)	52,500	(392)	10,000
Bangladesh Taka	1,041	5,000	-	-
Bolivian Boliviano	261	10,000	63	10,000
Chinese Yuan Renminbi	-	-	(632)	5,207
Colombian Peso	69	5,000	427	3,701
Congolese Franc	-	-	(356)	22,000
Dominican Peso	205	10,031	-	-
Egyptian Pound	1,452	8,000	(187)	5,000
Ghanaian Cedi	2,081	5,000	-	-
Georgian Lari	(27,118)	175,817	(6,446)	178,273
Guatemalan Quetzales	879	41,623	-	-
Honduran Lempira	-	-	(324)	6,000
Haitian Gourde	3,144	10,000	1,397	15,000
Indonesian Rupiah	713	28,395	(9)	17,180
Indian Rupee	98	3,916	-	-
Jordanian Dinar	-	-	(48)	927
Kenyan Shilling	1,957	23,546	201	38,746
Kazakhstani Tenge	(365)	8,000	(1,159)	22,000
Kyrgyzstani Som	1,350	27,500	2,330	26,500
Sri Lankan Rupee	-	-	889	5,000
Burmese Kyat	11,726	36,000	15,962	102,890
Malawian Kwacha	60	471	5	471
Mexican Peso	(863)	16,000	(266)	2,000
Moldovan Leu	1,933	10,603	17	603
Mongolian Tughrik	1,173	12,000	-	-
Moroccan Dirham	24	1,018	13	5,072
Mozambican Metical	(222)	2,572	277	4,871
Nigerian Naira	118	2,194	(48)	2,500
Pakistani Rupee	466	3,006	54	3,006
Peruvian Nuevo So	746	39,769	4,649	33,383
Philippine Peso	-	-	(92)	750
Sierra Leonean Leone	4,916	12,500	-	-
Tajikistan Somoni	(5,965)	62,000	1,222	63,389
Tanzanian Shilling	(1,828)	69,300	(3,054)	57,300
Tunisian Dinar	(1,112)	17,874	29	1,719
Ukrainian Hryvnia	4,789	14,252	(708)	66,305
Ugandan Shilling	(51)	3,000	-	-
Uruguayan Peso	-	-	369	17,656
Uzbekistani Som	5,668	191,403	2,398	201,433
Vietnamese Dong	1,075	65,864	(4,614)	58,295
South African Rand	-	-	347	5,219
Zambian Kwacha	94	2,000	(199)	1,509
<i>Long USD</i>				
Euro	1,369	24,967	(419)	30,219

(All amounts in thousands USD)	Fair value 2022	Notional value 2022	Fair value 2021	Notional value 2021
<i>Short EUR</i>				
Colombian Peso	-	-	75	1,609
Indian Rupee	(149)	3,728	(477)	4,170
Indonesian rupiah	(61)	10,978	-	-
Mexican Peso	(40)	933	-	-
Peruvian Nuevo So	(132)	2,271	-	-
Serbian Dinar	1,190	12,403	499	24,571
Thai Baht	-	-	(38)	788
Tunisian Dinar	491	21,420	396	46,681
Ukrainian Hryvnia	(496)	2,570	(1,458)	4,099
US Dollar	-	-	(2)	5,693
West Africa Franc	(8)	56,335	(1,308)	76,113
<i>Long EUR</i>				
Euro	(32,306)	388,995	(15,449)	550,649
<b>Total hedging transactions</b>	<b>(31,662)</b>	<b>1,588,665</b>	<b>(8,014)</b>	<b>1,807,624</b>

The Euro hedge book above has the specific purpose of offsetting one part of the short Euro positions that TCX builds on a portion of its Primary Investments portfolio. The other part of these short Euro positions is covered through the purchase of Euro-denominated Liquidity Investments, which the Fund must report separately. Depending on the movements in the EUR:USD exchange rate, this can lead to recording translation gains or losses on the liquidity portfolio (see Note 22), whereas, economically, TCX's net overall Euro position is deliberately neutral.

## Credit risk

TCX's credit risk exposure originates from its liquidity and derivatives investments. TCX limits the credit risks it incurs by concentrating liquidity investments with the best-rated counterparties, and by using either guarantees from highly-rated institutions or Credit Support Annexes to ISDA Master Agreements (i.e., ISDA CSA agreements). The purpose of ISDA CSA agreements is to trigger periodic collateral transfers based on the fluctuating fair market value of TCX's portfolio with each counterparty.

In general, under the ISDA CSA master netting agreements, the amounts owed by each counterparty on a single day in respect of all transactions outstanding in the same currency are aggregated into a single net amount that is payable by one party to the other. In certain circumstances (for instance, when a credit event such as a default occurs), all outstanding transactions under the agreement are terminated, the termination value is assessed, and only a single net amount is payable in settlement of all transactions.

TCX's credit risk measures make use of internal credit ratings with associated Probabilities of Default (PD). For Loss Given Default (LGD), the decision is based on the country of incorporation of the counterparty and the type of counterparty. The Exposure at Default (EAD) is equal to the current mark-to-market of the trades with the counterparty (net of any collateral held), plus the potential future exposure on the trades, calculated as the 99% VaR for the applicable period of exposure (i.e., the period between collateral calls in the case of collateralized exposures).

An internal rating and associated PD is assigned by RISKCO to each counterparty prior to execution of the first transaction. If and when an external rating of one of the three large global rating agencies is available, this rating is the primary basis for the rating assessment. The PD attached to each rating class is generally based on the empirical default rate of this rating class over the last five years, as published by Standard & Poor's. The ratings-based EAD of the portfolio is shown in the following table:

(All amounts in thousands USD)	Internal Credit rating	EAD 2022	EAD 2021
	AAA	624,217	763,853
	AA	565,308	385,100
	A	60,256	94,613
	BBB	33,179	28,836
	BB	43,696	30,980
	B	1,484	1,116
<b>Total</b>		<b>1,328,140</b>	<b>1,304,498</b>

The Risk Weighted Assets for the credit risk exposures shown above totals USD 118.1 million (2021: USD 91.8 million), after taking into account the applicable PDs and LGDs.

TCX's ISDA agreements do not meet the criteria for offsetting in the statement of financial position. This is because the right to offset is not current but enforceable only on the occurrence of future events such as a default or other credit events. The following table sets out the fair value of recognized financial instruments that are subject to these agreements:

2022					
(All amounts in thousands USD)	Gross Amount	Amounts offset included in fair value	Fair value included in statement of financial position	Related financial instruments not offset <sup>4</sup>	Net Amount
<b>Financial assets</b>					
Cross currency swaps	127,178	-	127,178		
Forwards	48,775	-	48,775		
Total financial assets	175,953	-	175,953	(58,077)	117,876
<b>Financial liabilities</b>					
Cross currency swaps	(318,493)	-	(318,493)		
Forwards	(35,452)	-	(35,452)		
Total financial liabilities	(353,945)	-	(353,945)	197,820	(156,125)
<b>Total</b>	<b>(177,992)</b>	<b>-</b>	<b>(177,992)</b>	<b>139,743</b>	<b>(38,249)</b>

<sup>4</sup> Consists of collateral received or paid

2021

(All amounts in thousands USD)	Gross Amount	Amounts offset included in fair value	Fair value included in statement of financial position	Related financial instruments not offset <sup>5</sup>	Net Amount
<b>Financial assets</b>					
Cross currency swaps	104,907	-	104,907		
Forwards	38,488	-	38,488		
Total financial assets	143,395	-	143,395	(34,721)	108,674
<b>Financial liabilities</b>					
Cross currency swaps	(226,316)	-	(226,316)		
Forwards	(22,271)	-	(22,271)		
Total financial liabilities	(248,587)	-	(248,587)	116,012	(132,575)
<b>Total</b>	<b>(105,192)</b>	<b>-</b>	<b>(105,192)</b>	<b>81,291</b>	<b>(23,901)</b>

## Liquidity risk

### Investments

Liquidity risks include the risk that TCX cannot fulfil its obligations in a timely fashion due to cross-border transfer timing constraints. To minimize the risk of underfunding in any single currency, TCX maintains minimum liquidity levels to cover future payment obligations in any currency that is not classified as freely convertible. These limits are determined by RISKCO, depending on the currency's convertibility risks. As per 31 December 2022, no traded currency other than the Euro is approved as freely convertible.

To protect TCX from liquidity risk, the single day liquidity gap for each currency may not be larger than half the average spot FX daily trading volume (determined by the Risk Monitor using the average over the past year). To monitor the liquidity risk, a gap analysis is performed monthly that provides an overview of all expected cash flows of all transactions. This includes coupon receipts on bonds, periodic interest exchange on swaps, principal (re)payments on cross-currency swaps and settlements on currency swaps.

Liquidity limits for non-freely convertible currencies are set for a business-as-usual scenario and for a stress scenario. In the business-as-usual scenario, no negative gap is allowed for the first week and the first month (i.e., TCX must have full local currency liquidity to cover foreseeable cash outflows for the next week and the next month). Under a stress scenario, TCX may need more local funds. In this respect the following maximum negative gaps are allowed:

- For the first week: equal to 100% the average turnover of one trading day;
- For the first month: equal to 300% the average turnover of one trading day.

For freely convertible currencies, negative liquidity gaps are allowed up to 10% of the liquidity investment portfolio for the first month. The total gap of all convertible currencies should be lower than 50% of the liquidity investments portfolio. To prevent unnecessary risk taking in the liquidity portfolio, a rise in interest rates of 1% may not cause a loss higher than 1% of the liquidity portfolio.

<sup>5</sup> Consists of collateral received or paid

The gap analysis for the year ended 31 December 2022 is as follows:

(all amounts in thousands USD)	<u>One week</u>	<u>One month</u>	<u>Over one month</u>
<b>Currency EUR</b>			
Cash In	26,824	7,099	458,526
Cash Out	(1,293)	(891)	(96,860)
Net Position	25,531	6,207	361,665
Cum Net Position	25,531	31,738	393,403
<b>Limit</b>	<b>(632,693)</b>	<b>(632,693)</b>	
	<u>One week</u>	<u>One month</u>	<u>Over one month</u>
<b>Currency USD</b>			
Cash In	57,856	96,307	1,031,446
Cash Out	(4,291)	(14,540)	(646,896)
Net Position	53,565	81,767	384,550
Cum Net Position	53,565	135,332	519,883
<b>Limit</b>	<b>(632,693)</b>	<b>(632,693)</b>	

The gap analysis for the year ended 31 December 2021 is as follows:

(All amounts in thousands USD)	<u>One week</u>	<u>One month</u>	<u>Over one month</u>
<b>Currency EUR</b>			
Cash In	86,174	14,467	465,873
Cash Out	(1,393)	(1,537)	(87,261)
Net Position	84,781	12,931	378,612
Cum Net Position	84,781	97,712	476,324
<b>Limit</b>	<b>(596,985)</b>	<b>(596,985)</b>	
	<u>One week</u>	<u>One month</u>	<u>Over one month</u>
<b>Currency USD</b>			
Cash In	58,241	51,103	1,039,001
Cash Out	(14,434)	(7,632)	(675,988)
Net Position	43,807	43,471	363,013
Cum Net Position	43,807	87,278	450,291
<b>Limit</b>	<b>(596,985)</b>	<b>(596,985)</b>	

TCX invests its liquid assets in cash deposits, money market funds, commercial papers, fixed rate bonds and floating rate notes. About 72% (2021: 72%) of these assets have a remaining term shorter than 1 year. Though longer-dated, the other 28% (2021: 28%) are considered highly liquid investments as well (i.e., top-rated paper issued by government, government-backed, and banking institutions). The Fund invests in commercial paper for an amount of USD 771,041 representing 92.0% of the NAV (2021: USD 578,203 representing 69.7% of the NAV) which are readily convertible into cash.

TCX provides clients with conditional deliverable products. Under normal circumstances, these products are deliverable (i.e., TCX receives domestic currency locally against payment of USD or EUR obligations offshore), and thus lead to the need for TCX to repatriate inflowing funds into the Netherlands, but in case of inconvertibility or non-transferability, the products automatically become non-deliverable (i.e., all cash flows occur in USD or EUR offshore). Thus, TCX has no local currency transfer obligations or risks after the occurrence of such an event.



The currency in which TCX had conditional deliverable products outstanding at 31 December 2022 is the Dominican Republic Peso for a total notional of USD 1.8 million (2021: Dominican Republic Peso for a total notional of USD 3.3 million).

### *Subsidies granted and deferred subsidy*

The Fund's financial liabilities include subsidies granted and deferred subsidy for an undiscounted cash flow amount of USD 7,039 (2021: USD 10,975), representing 0.5% (2021: 0.8%) of the total financial liabilities (see Note 14 and 15 for further details). The subsidy has no fixed maturity date and depends on the development of the subsidized transaction.

### *Subordinated Convertible Debt*

The Fund's financial liabilities include Subordinated Convertible Debt for a nominal amount of USD 267,677 (2021: USD 269,532), consisting of an undiscounted cash flow amount of USD 183,777 (2021: USD 186,238), representing 11.9% (2021: 13.2%) of the total financial liabilities, and "Grants linked to the Subordinated Convertible Debt", for an amount of USD 83,900 representing 5.4% of the total financial liabilities (2021: USD 83,294 and 5.9% respectively) (see Note 16 for further details). The maturity date of the Subordinated Convertible Debt and the Grants linked thereto is 31 December 2045, with the exception of USD 70.6 million held by the government of the Netherlands which has a maturity date of 31 December 2025 (subject to certain provisions). Each Subordinated Convertible Lender has the option to convert, in whole or in part, its outstanding commitment into Class B Shares of the Fund.

### *First loss loan*

The Fund's financial liabilities include a First loss loan for an undiscounted cash flow amount of USD 10,901 (2021: USD 10,901), representing 0.7% (2021: 0.8%) of the total financial liabilities (see Note 17 for further details). The First loss loan has a final maturity date and repayment date of 31 December 2025.

### *Redeemable shares Class A*

TCX's Shares Class A are "puttable instruments". Repurchase is at each investor's option up to an annual maximum of 20% of the Fund's issued Shares A outstanding at the start of each calendar year. Assuming that investors make maximum use of this put option, the undiscounted repurchase profile of the Fund's Shares A would be as provided in the table below (see Note 18 for further details regarding repurchase rights):

(All amounts in thousands USD)	2022	2021
<b>Year of maturity</b>		
2022	-	132,678
2023	134,110	106,144
2024	107,288	84,914
2025	85,830	67,931
2026	68,664	54,345
2027	54,931	43,476
2028	43,945	-
2029 and further till 2045	343,418	339,752
<b>Total</b>	<b>838,186</b>	<b>829,240</b>

## *Other liabilities*

The Fund holds other liabilities for an undiscounted cash flow amount of USD 13,734 (2021: USD 9,886) with a maturity date of less than 3 months, representing 0.9% of the total financial liabilities (2021: 0.7%).

## **Fair value of other financial assets and financial liabilities**

There is no material difference between the value of the other financial assets and liabilities, as shown in the balance sheet, and their fair value due to the short term nature, except for the Subordinated Convertible Debt (see Note 16 for further details) and First loss loan (Note 17).

## **5. Cash and cash equivalents**

At 31 December 2022 and 2021, no restrictions on the use of cash and cash equivalents exist.

## **6. Financial assets at fair value through profit or loss**

The financial assets at fair value through profit or loss consist of the following instruments at 31 December of each year:

(All amounts in thousands USD)

	<b>2022</b>		<b>2021</b>	
	<b>Fair value in USD</b>	<b>% of NAV</b>	<b>Fair value in USD</b>	<b>% of NAV</b>
<i>Level 2 financial instruments</i>				
Commercial paper	771,041	92.0	578,203	69.7
Debt instruments	342,439	40.9	436,656	52.7
Cross currency interest rate swaps – Hedging	5,985	0.7	6,426	0.8
Cross currency interest rate swaps – Primary	17,434	2.1	13,843	1.7
FX Forward contracts – Hedging	6,486	0.8	2,978	0.4
FX Forward contracts – Primary	8,494	1.0	7,890	1.0
<i>Level 3 financial instruments</i>				
Cross currency interest rate swaps – Hedging	40,928	4.9	33,125	4.0
Cross currency interest rate swaps – Primary	62,831	7.5	51,513	6.2
FX Forward contracts – Hedging	3,409	0.4	1,883	0.2
FX Forward contracts – Primary	30,386	3.6	25,737	3.1
Frontier Clearing Fund Junior (TCX)	9,534	1.1	9,697	1.2
<b>Total</b>	<b>1,298,967</b>	<b>155.0</b>	<b>1,167,951</b>	<b>141.0</b>

The level in the fair value hierarchy within which the fair value measurement is categorised in its entirety, is determined based on the lowest level input that is significant to the fair value measurement in its entirety. For this purpose, the significance of an input is assessed against the fair value measurement in its entirety. If a fair value measurement uses observable inputs that require significant adjustment based on unobservable inputs, that measurement is a level 3 measurement.

Assessing the significance of a particular input to the fair value measurement in its entirety requires judgement, considering factors specific to the asset or liability. The determination of what constitutes 'observable' requires significant judgement by the Fund. The Fund considers observable data to be market data that is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market.

The policy of classification and the process of fair value measurement of level 3 investments is explained in Note 31. The Level 3 investments are detailed as follows (for liabilities see Note 11):

(All amounts in thousands USD)	2022	2021
Assets	147,088	121,955
Liabilities	(274,126)	(193,144)
<b>Total</b>	<b>(127,038)</b>	<b>(71,189)</b>

The following table shows the movements in Level 3 financial instruments (both assets and liabilities) during the year (all amounts in thousands USD):

For the year 2022	Assets	Liabilities
<b>Balance as of 1 January 2022</b>	121,955	(193,144)
Transfers into or out of the Level investment category 3	-	-
<b>Adjusted Opening balance</b>	<b>121,955</b>	<b>(193,144)</b>
Early termination swap contract	(640)	12,359
Matured deals	(46,086)	50,918
Unrealized gains and (losses)	71,859	(144,259)
<b>Balance as of 31 December 2022</b>	<b>147,088</b>	<b>(274,126)</b>
<b>For the year 2021</b>	<b>Assets</b>	<b>Liabilities</b>
<b>Balance as of 1 January 2021</b>	135,059	(264,252)
Transfers into or out of the Level investment category 3	-	-
<b>Adjusted Opening balance</b>	<b>135,059</b>	<b>(264,252)</b>
Early termination swap contract	(989)	12,309
Matured deals	(18,204)	15,238
Unrealized gains and (losses)	6,089	43,561
<b>Balance as of 31 December 2021</b>	<b>121,955</b>	<b>(193,144)</b>

All results on financial instruments classified as Level 3 are presented in the statement of comprehensive income under results on financial instruments at fair value through profit or loss.

There are no results on financial instruments at fair value through profit or loss as a result of changes in calculation assumptions (2021: no results).

The results on financial instruments at fair value through profit or loss include an amount of USD 11,720 (2021: USD 11,320) resulting from early termination of swap contracts.

A parallel shift in interest rates of 1 basis point results in a change in fair value through profit or loss of USD 297 (2021: USD 241).

The Fund periodically estimates the non-performance risk on its derivative liabilities (DVA, or own credit risk) and the counterparty risk on its derivative assets (CVA). These CVA/DVA estimates take into account the Fund's collateral positions and are made in a manner consistent the Fund's risk management policies and market practice, in order to maximize the use of observable market parameters when deemed relevant. In 2022, no CVA adjustment was made (2021: no adjustment).

## 7. Cash collateral

As of 31 December 2022, the Fund transferred cash to margin accounts as collateral against open derivatives contracts for a total net amount of USD 139,743 (2021: USD 81,291). The margin accounts were created based on the Credit Support Annex to the ISDA Master Agreements as agreed with various counterparties. The margin accounts are interest bearing (refer to the credit risk disclosure in Note 4).

## 8. Other receivables

At 31 December the other receivables consist of the following:

(All amounts in thousands USD)

	2022	2021
Interest receivable	469	-
Prepaid management fee	75	-
Other	246	367
<b>Total other receivables</b>	<b>790</b>	<b>367</b>

## 9. Related party transactions

Related party transactions are transfers of resources, services or obligations between related parties and the Fund, regardless of whether a price has been charged. Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial or operational decisions or is part of key management (Senior management of TCX Investment Management B.V.) of the Fund. The following parties are considered related parties.

### Managing board

TCX Investment Management Company B.V. received remuneration for services provided as the Fund's statutory director which is included in the overall agreement with both parties. See below under Fund Manager for further details.

### Supervisory Board

The Supervisory Board members are entitled to receive fixed annual fees, excluding any applicable VAT, of EUR40 for the Chair (2021: EUR 40), EUR 30 for each other member (2021: EUR 30 for each other member). These fees are presented as part of the governance expenses. In relation to 2022, a total of EUR 124 (2021: EUR 130) has been expensed, including the applicable VAT. The amount expensed each year depends on the EUR:USD exchange rate, the VAT treatment of each member's fees, the timing of actual payments and of Supervisory Board retirements and appointments, and AGM decisions on fee levels. In addition, each member has the option to decline receiving their fees. In 2022, one regular member did so (2021: one).

### Fund Manager

The main responsibilities of the Fund Manager are to manage the Fund's investments according to the Fund's strategy and risk management and investment and operational guidelines, to represent the Fund in communication with its stakeholders, counterparties and services providers and to ensure the Fund's optimal access to international and local markets to promote the Fund's investment products.

#### *Management and performance fee*

According to the Fund Management Agreement, the Fund Manager is remunerated for its activities as follows:

- Cost recovery component: the Supervisory Board agrees to an annual budget payable monthly in advance, with reconciliation to actual costs at year end. For the current period, the Fund Manager received EUR 9,500 equal to USD 9,962 (2021: EUR 7,225 equaling USD 8,638);
- Annual performance fee: the Fund Manager receives an annual performance fee driven by parameters agreed with the Supervisory Board of the Fund and approved by shareholders. The total performance fee taken into account (accrued) for the year 2022 amounts to USD 1.697. Together with the approved surplus over the performance fee estimate accrued for the year 2021 of USD 41, the total performance fee recognized in the 2022 statement of comprehensive income amounts to USD 1738. In 2021 the total recognized performance fee amounted to USD 2,350, representing the accrued performance fee for the performance over the year 2021 of USD 2,200, plus the approved surplus over the performance fee estimate accrued for the year 2020 of USD 150.

## *Remuneration of directors and staff of the Fund Manager*

At the end of 2022, the Fund Manager had 35 employees (2021: 31). The entire team is classified as “identified staff” for regulatory purposes. In conformity with the AIFMD, this means that all staff are subject to malus and claw-back arrangements with respect to their variable compensation, and the variable compensation of senior management, “risk-takers”, and control staff is subject to pre-defined deferral arrangements.

Historically, the team’s fixed and variable remuneration awards have been as follows:

### **2022**

(All amounts in thousands)

	<b>Fixed EUR</b>	<b>Variable EUR</b>	<b>Total EUR</b>	<b>Total USD<sup>6</sup></b>
Senior Management (5 staff) <sup>7</sup>	1,140	498	1,638	1,746
Other personnel	2,599	672	3,271	3,487
<b>Total remuneration in 2022</b>	<b>3,740</b>	<b>1,170</b>	<b>4,910</b>	<b>5,233</b>

### **2021**

(All amounts in thousands)

	<b>Fixed EUR</b>	<b>Variable EUR</b>	<b>Total EUR</b>	<b>Total USD<sup>8</sup></b>
Senior Management (5 staff)	1,222	345	1,567	1,775
Other personnel	2,295	573	2,869	3,249
<b>Total remuneration in 2021</b>	<b>3,518</b>	<b>918</b>	<b>4,436</b>	<b>5,024</b>

The variable remuneration awarded in any given year relates to individual performance over the previous year. For the staff subject to deferral, 60% is payable in cash in the year of award; the remainder (40%) is payable in equal cash installments over the following 3 years (subject to malus and claw-back).

<sup>6</sup> Translated at the year-end USD/EUR exchange rate of EUR 0.938

<sup>7</sup> Includes the previous CRO till 10 June 2022.

<sup>8</sup> Translated at the year-end USD/EUR exchange rate of EUR 0.883

## **10. Relevant contracts for the Fund's operations**

### **Fund Manager**

The Fund has entered into a Fund Management Agreement with the Fund Manager to provide portfolio management, risk management, and fund administration and valuation services to the Fund. See Note 9 for details of the contractual arrangements.

### **Fund Administrator and Valuer**

The Fund Manager has delegated the Fund's administration and valuation functions to a third-party service provider, DLM Finance B.V. ("the Administrator"), under a bilateral agreement with the Fund Manager. The main responsibilities of the Administrator are administering, settling and valuing the Fund's investments, collateral management, and maintaining and preparing portfolio reports.

Additionally, the Administrator keeps the books of the Fund and prepares periodic financial reports for the benefit of the Pricing Committee, the Supervisory Board and its committees, the investors, and regulators. The expenses for these services are included in the Management Fee discussed in Note 9 above.

### **Risk Monitor**

Historically, the Fund's risk monitoring has been provided by Cardano Risk Management B.V. ("CRM") under the terms of a trilateral agreement with the Fund Manager and the Fund. Amongst other functions, CRM is responsible for executing the daily risk, asset, and cash flow monitoring functions, the provision of an independent opinion on pricing and valuation, providing expert input on the modeling and execution of derivatives transactions, and supporting the Fund Manager in research and risk management.

For 2022, Cardano Risk Management B.V. received a fixed fee equal to EUR 1,057 or USD 1,132 (2021: EUR 1,190 equaling USD 1,403).

### **Depository and Custodian**

The Fund has appointed Bank of New York Mellon N.V. ("BNYM") to act as its independent Depository. In this capacity, BNYM is responsible for general oversight of the Fund Manager, monitoring transactions in TCX shares, safe keeping the Fund's assets, reconciling its cash flows, and ensuring that its valuation policies and procedures are implemented properly and consistently. BNYM also acts as the Fund's custodian.

For 2022, BNYM received depository fees of USD 206 (2021: USD 209). These fees fluctuate monthly as a function of the value of TCX's investments.

### **Assurance providers**

The Fund has appointed PricewaterhouseCoopers Accountants N.V. as its Independent Auditor. The Independent Auditor's remuneration in 2022 consisted of EUR 294 in audit fees, equal to USD 305 (2021: EUR 296 equaling USD 341). The Independent Auditor is engaged to perform the audit of the financial statements, NAV audits, review procedures and other non-audit services.

The remaining part USD 136 (2021: USD 140) of the total audit fees of USD 495 (2021: USD 481) is related to the operational audit of the Fund by Solutional Netherlands B.V., which resulted in the issuance of an unqualified ISAE 3402 Type II report.

## 11. Financial liabilities at fair value through profit or loss

The financial liabilities at fair value through profit or loss consist of the following instruments at 31 December of each year (see Note 6 for further information).

(All amounts in thousands USD)

	2022		2021	
	Fair value in USD	% of NAV	Fair value in USD	% of NAV
<i>Level 2 financial instruments</i>				
Cross currency interest rate swaps – Hedging	26,122	3.1	15,143	1.8
Cross currency interest rate swaps – Primary	38,763	4.6	29,873	3.6
FX Forward contracts – Hedging	14,481	1.7	9,691	1.2
FX Forward contracts – Primary	453	0.1	736	0.1
<i>Level 3 financial instruments</i>				
Cross currency interest rate swaps – Hedging	221,594	26.4	16,444	2.0
Cross currency interest rate swaps – Primary	32,014	3.8	164,856	19.9
FX Forward contracts – Hedging	1,138	0.1	11,342	1.4
FX Forward contracts – Primary	19,380	2.3	502	0.1
<b>Total</b>	<b>353,945</b>	<b>42.1</b>	<b>248,587</b>	<b>30.1</b>

## 12. Accrued expenses and other payables

As of 31 December the accrued expenses and other payables consist of the following:

(All amounts in thousands USD)

	2022	2021
Donor Commitments	6,379	5,359
Audit fee payable	206	106
Other general fees payable	507	538
Accrued interest on FCDO/SECO subordinated loan	375	420
Management fee and performance fee payable	1,728	2,149
<b>Total accrued expenses and other payables</b>	<b>9,195</b>	<b>8,572</b>

### Donor Commitments

The Fund has agreed with BMU as a holder of the Subordinated Convertible Debt (see Note 16) that it will distribute to BMU certain amounts each year in the form of either cash or additional Donor Commitments supported by retained cash (“Donor Assets”) to be used to finance special projects, grants or investments approved by BMU (see Note 13). In 2022 and 2021, BMU elected to receive this distribution in the form of additional Donor Commitments.

When using cash Donor Assets for making an investment that may be redeemed at a later date, any redemption proceeds received by the Fund will be transferred back to the Donor Assets. The Fund is entitled to any interest, dividend or other income received from these investments.

The obligation of the Fund to use the Donor Assets to honor the Donor Commitments ranks junior to the Fund’s senior unsecured obligations and pari passu with any other subordinated obligations of the Fund.

### 13. Distributions to the Donors

The Fund has agreed with the providers of the Subordinated Convertible Debt (the Donors listed in Note 16) that it will distribute to them the following amounts:

- In the case of the Minister for Foreign Trade & Development Cooperation of The Netherlands, Directorate General International Cooperation ("DGIS"), on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 2.5% per annum flat up to 2025, such to be distributed in cash or additions to the First Loss Loan, at the discretion of DGIS;
- In the case of BMZ, on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 2.0% up to 2025 and 1.5% up to 2045, such to be distributed in cash;
- In the case of BMU, on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 2.0% up to 2025 and 1.5% up to 2045, such to be distributed in cash or additional Donor Commitments, at the discretion of BMU (see Note 12);
- In the case of FCDO, on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 1% up to 2025 and 0.5% up to 2045, such to be distributed in cash.
- In the case of SECO, on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 2.0% per annum flat up to 2025 and 1.5% up to 2045, such to be distributed in cash.
- In the case of PROPARCO, on January 1 of each year, on their share of the Subordinated Debt Outstanding on December 31 of the previous year, an amount equal to 2% per annum flat up to 2025 and 1.5% up to 2045, such to be distributed in cash.

These distributions to the Donors are presented on a net basis in the statement of comprehensive income and are detailed as follows:

(All amounts in thousands USD)	Note	2022	2021
Interest calculated based on market interest rates		(10,005)	(9,536)
Amortization of government grants	16, 17	4,035	3,949
<b>Distributions to the Donors</b>		<b>5,970</b>	<b>(5,587)</b>



## 14. Subsidies granted by third parties

### Objective

The Fund may make arrangements with government donors, multi-lateral organizations, and other parties to subsidize the rates it quotes in certain currencies or sectors in case of structural impediments to local currency financings. As of 31 December 2022, two such arrangements were in place:

- The funded “LIFT Facility” with the Livelihoods and Food Securities Trust Fund (LIFT) a UN-administered fund operating in Myanmar – which covers upfront 100% of the cost of subsidizing certain transactions (as described below); and
- The unfunded “EC Pricing Facility”, which covers conditionally (and ex-post facto) the costs of subsidizing the related transactions (as described in Note 20).

### LIFT Facility

The LIFT facility was launched in 2016 with the objective of enabling foreign development financiers to offer Kyat denominated loans to micro-finance institutions in compliance with the maximum interest rate set by the Central Bank of Myanmar on foreign lending. The facility was ‘topped-up’ in May 2019 and in June and August 2020. As per 31 December 2022 the Fund had received all tranches of the LIFT facility for a total amount of USD 24,975 (2021: USD 24,975), to offset on a one-for-one basis the cost of subsidizing Kyat denominated transactions within the program’s boundaries.

### Movement in the LIFT account during the period

(All amounts in thousands USD)

	2022	2021
Opening balance	5,333	5,934
Subsidies on transactions executed during the year	(3,054)	(601)
<b>Total end of year</b>	<b>2,279</b>	<b>5,333</b>

The LIFT program is presently in wind-down mode (no new transactions are being booked and the portfolio is reducing in line with scheduled amortizations). Accordingly, it is expected that the balance of USD 2,279 will be refunded to LIFT during 2023.

## 15. Deferred LIFT subsidy income

The subsidies on the LIFT transactions executed during each year are deferred over the lifetime of the executed transactions and recognized on each interest settlement date in the Statement of Comprehensive Income.

(All amounts in thousands USD)

	2022	2021
Opening balance	5,642	8,247
Deferred subsidy assigned to executed transactions during the year	3,054	601
Recognized interest grant through Statement of Comprehensive Income	(3,936)	(3,206)
<b>Total end of year</b>	<b>4,760</b>	<b>5,642</b>

## 16. Subordinated Convertible Debt and Grants linked to the Subordinated Convertible Debt

### Objective

The Subordinated Convertible Debt has been provided by Donors with the objective to:

- provide to the Fund a financing that provides a first loss protection to its Shareholders, in order to enhance the risk-return profile of their investment;
- enhance the Fund's capability and incentive to transact in Least Developed Countries and Other Low Income Countries, which are the two lowest categories of countries in the OECD Development Assistance Committee's list of Official Development Assistance recipients. The Donors specifically wish to target such countries situated in Sub Sahara Africa with their investment; and
- enhance the Fund's capability and incentive to transact in SE4ALL (Universal Energy Access, Renewable Energy and Energy Efficiency) projects carried out in countries mentioned in the OECD Development Assistance Committee list.

### Status

The Donors are:

- (i) The Netherlands Minister for Foreign Trade and Development Cooperation, Directorate General for International Cooperation (DGIS with a EUR 50 million commitment),
- (ii) KfW acting on behalf of the German Federal Ministry for Economic Cooperation & Development (BMZ, with a EUR 62.5 million and USD 5,7 million commitment),
- (iii) KfW acting in its own name but for the account of the German Federal Ministry for the Environment, Nature Conservation, and Building & Nuclear Safety (BMU, with a EUR 30 million and USD 22.7 million commitment respectively),
- (iv) The Office of Her Britannic Majesty's Secretary of State for Foreign, Commonwealth & Development Affairs (FCDO with a GBP 31 million commitment since March 2019),
- (v) The Swiss State Secretariat for Economic Affairs (SECO with a USD 11 million commitment), and
- (vi) France's *Société de Promotion et de Participation pour la Coopération Economique* (Proparco) with a EUR 2.5 million commitment).

All commitments are 100% disbursed.

The obligations towards DGIS, BMU, BMZ, SECO and Proparco were converted into USD on disbursement at the then applicable exchange rate.

The obligation towards DFID is outstanding in GBP in TCX's books.

In summary the status of the Subordinated Convertible Debt is as follows:

Donor	Maturity Year end	Interest % as per 01/01/2020	Interest % as per 01/01/2025	Outstanding USD
DGIS	2025	2.5	2.5	70,618
BMZ	2045	2.0	1.5	90,547
BMU	2045	2.0	1.5	55,413
FCDO	2045	1.0	0.5	37,508
SECO	2045	2.0	1.5	11,000
Proparco	2045	2.0	1.5	2,591
<b>Total per 31 December 2022</b>				<b>267,677</b>

Donor	Maturity Year end	Interest % as per 01/01/2020	Interest % as per 01/01/2025	Outstanding USD
DGIS	2025	2.5	2.5	70,618
BMZ	2045	2.0	1.5	90,547
BMU	2045	2.0	1.5	55,413
FCDO	2045	1.0	0.5	41,954
SECO	2045	2.0	1.5	11,000
<b>Total per 31 December 2021</b>				<b>269,532</b>

## *Subordination*

The Subordinated Convertible Debt is subordinated to all senior and subordinated obligations of the Fund and is furthermore repayable upon liquidation only to the extent that each and every holder of Class A shares has achieved a compounded 3-month USD Libor flat return on its investment (the Threshold Shareholder IRR). It is not freely transferable.

## *Conversion*

The Donors have the option at all times to convert the outstanding commitments in the Subordinated Convertible Debt in whole or in part into shares Class B. The number of shares Class B shall be calculated in respect to the portion of the outstanding commitment and the number of shares Class B to be issued to a lender. The conversion price payable by a converting lender on the conversion date shall be the equal to the per-share net asset value of the Fund's Shares A applicable immediately after conversion (including the first loss effect of the Subordinated Convertible Debt and/or Shares B outstanding). The lenders' conversion rights are not transferable. During the period, no conversion options were exercised.

## *Restriction to redeem Shares B*

The Shares B shall have the same rights as any other class of Shares in the Fund, except that the shares Class B will not participate in any dividend and will not be redeemable until the Fund's shareholders have achieved the Threshold.

## *Repayment and interest*

Unless previously converted to Shares B, the USD amount outstanding under the Subordinated Convertible Debt becomes redeemable in full on their maturity date. As outlined in Note 12, the Fund has agreed to make certain distributions to the Donors in lieu of the usual interest payments.

## *Fair value information*

The estimation of the fair value of the Subordinated Convertible Debt at 31 December 2022 was calculated based on an internally developed valuation model (Level 3) and amounted to USD 168.5 million (2021: USD 165.7 million). The following material assumptions were used in the internally developed valuation model which is based on an income approach:

- The facility is junior to the net assets attributable to holders of redeemable shares Class A;
- No early exercise of the conversion is taken into account;
- The conditional annual payment of the interest on the facility has comparable value with an end of period payment of compounded LIBOR;
- The volatility of the TCX NAV used in the Black & Scholes option valuation is based on the results of a TCX financial business model with an implied volatility of 20%.

A change in the credit spread of +50bps results in a change in fair value of USD 5.676 (2021: USD 5,619). A change in the volatility of the TCX NAV of plus or minus 1% will change the fair value of: USD +/- 2.893 (2021: USD +/- 2,725).

*Movements during the period and cumulative positions at the end of reporting period*

(All amounts in thousands USD)	<b>Subordinated Convertible Debt at market interest</b>	<b>Government grants</b>	<b>Total</b>
<b>Total position as of 31 December 2020</b>	<b>173,081</b>	<b>86,824</b>	<b>259,905</b>
<i>Amortization</i>			
Amortization during the year	3,361	(3,361)	-
<i>The 2021 Commitment</i>			
Drawdown SECO December 2021	10,000	-	10,000
FX result FCDO (GBP:USD)	(204)	(169)	(373)
<b>Total position as of 31 December 2021</b>	<b>186,238</b>	<b>83,294</b>	<b>269,532</b>
<i>Amortization</i>			
Amortization during the year	3,446	(3,446)	-
Amortization SECO Second Part	(4,673)	4,673	-
<i>The 2022 Commitment</i>			
Drawdown Proparco November 2022	1,073	1,518	2,591
FX result FCDO (GBP:USD)	(2,307)	(2,139)	(4,446)
<b>Total position as of 31 December 2022</b>	<b>183,777</b>	<b>83,900</b>	<b>267,677</b>

## **17. First loss loan**

### *Objective*

The First loss loan has been provided by Minister for Foreign Trade and Development Cooperation ("DGIS") with the objective of enhancing TCX's capability and incentive to transact in the lowest two categories of countries as defined by the OECD Development Assistance Committee List of Official Development Assistance Recipients. DGIS specifically wishes to target women and countries situated in Sub Sahara Africa.

### *Status*

The First loss loan agreement was executed on 21 December 2016 for a total amount of USD 10,901. The execution of the agreement was based on a transfer of Donor Commitments as disclosed in Note 12.

## *Subordination*

Repayment obligations of the First loss loan ranks pari passu with the obligations of the Fund under Subordinated Convertible Debt (see Note 16) in a going-concern scenario. In case the Fund decides to liquidate pursuant to a Liquidation Trigger Event (see Note 18), there is no repayment obligation (the principal resets to zero).

## *Repayment and interest*

The Fund shall repay the full amount outstanding of the First loan loss including outstanding interest on 31 December 2025. The First loss loan is subject to an annual interest of 2.5% flat on the amount outstanding at December 31 each year.

## *Fair value information*

The estimation of the fair value of the First loss loan at 31 December 2022 was calculated based on an internally developed valuation model (Level 3) and amounted to USD 2.8 million (2021: USD 2.8 million). The following material assumptions were used in the internally developed valuation model which is based on an income approach:

- The facility is junior to the net assets attributable to holders of redeemable shares Class A and ranks pari passu with the Subordinated Convertible Debt;
- No early exercise of the conversion is taken into account;
- Inclusion of a 2.5% fixed versus floating USD interest rate swap with a maturity date of 31 December 2025;
- The volatility of the TCX NAV used in the Black & Scholes option valuation is based on the results of a TCX financial business model with an implied volatility of 20%.

A change in the credit spread of +50bps results in a change in fair value of USD 57 (2021: USD 57). A change in the volatility of the TCX NAV of plus or minus 1% will change the fair value of: USD +/- 168 (2020: USD +/- 168).

## *Movements during period and cumulative positions at the end of reporting period*

(All amounts in thousands USD)	<b>First loss loan at market interest</b>	<b>Government grants</b>	<b>Total</b>
<b>Total position as of 31 December 2020</b>	<b>7,958</b>	<b>2,943</b>	<b>10,901</b>
Amortization during the year	588	(588)	-
<b>Total position as of 31 December 2021</b>	<b>8,546</b>	<b>2,355</b>	<b>10,901</b>
Amortization during the year	589	(589)	-
<b>Total position as of 31 December 2022</b>	<b>9,135</b>	<b>1,766</b>	<b>10,901</b>

## **18. Share capital**

### *Structure of the Fund's capital*

The authorized share capital amounts to sixty thousand euro (EUR 60,000) and is divided into:

- 1,000 classes of Class A shares, numbered from A1 to and including A1,000, each class containing ten (10) shares with a par value of one euro (EUR 1) each; and
- five hundred (500) classes of Class B shares, numbered from B1 up to and including B500, each class containing ten (10) shares with a par value of one euro (EUR 1) each; and
- One (1) C Ordinary Share, numbered C1, with a par value of forty five thousand euro (EUR 45,000), which share shall be regarded as one (1) class of shares).

At 31 December 2022, 1,053 Shares Class A are in issue (31 December 2021: 1,053 shares) and are fully paid. No Shares Class B are in issue. The single C Ordinary Share is held in treasury by TCX itself.

### *Subscriptions*

The Fund accepts from time to time offers to subscribe to newly issued Shares Class A from “professional investors” only (within the meaning of Article 1:1 of The Netherlands Financial Markets Supervision Act), upon approval by the Fund’s General Meeting of the terms of the issuance and the identity of the new investor.

### *Repurchases*

Each investor has the option to exit the Fund by offering its shares for repurchase on a quarterly basis, at Net Asset Value.

Repurchases are subject to an annual cap of 20% of Shares Class A and Shares Class B outstanding at the start of each calendar year. Separately, the shareholders have the right to request - on 31 December 2040 only - a repurchase of all their shares without the cap applying, which the Fund Manager may postpone until 31 December 2045.

Repurchase of shares can only occur if the Primary Investments volume existing between TCX and the exiting Investor after redemption does not breach the limits defined in the Investors Agreement.

### *Rights and obligations*

Each shareholder has the number of votes at a General Meeting equal to the number of Shares it holds. Each Subordinated Convertible Lender may vote on certain matters defined in the Investors Agreement, and in these cases has the number of votes equal to the number of shares Class B that it would have held if the Subordinated Convertible Debt would have been converted into shares Class B on the last business day of the previous financial year. The shareholders and Subordinated Convertible Debt investors shall exercise their voting rights in accordance with and pursuant to the terms, conditions and spirit of the Investors Agreement.

## Capital management

The Fund's capital management objectives are included in Note 4. The Fund's internal capital requirements to meet its objective are satisfied through a diversified financial structure. The breakdown is as follows at 31 December:

(All amounts in thousands USD)	2022	2021
Net assets attributable to holders of Shares Class A	838,186	829,240
Subordinated Convertible Debt	183,777	186,238
Grants linked to the Subordinated Convertible Debt	83,900	83,294
EC Capacity Facility (see Note 19)	155,296	91,085
First loss loan	10,901	10,901
Frontier Clearing investment capital usage	(6,674)	(6,788)
<b>Total Tier 1 capital</b>	<b>1,265,386</b>	<b>1,193,970</b>

At 31 December 2022, the Fund has no Tier 2 capital.

The definitions of Tier 1 and Tier 2 capital are internal to TCX and are presently driven chiefly by the relative ranking of the instruments in case of a forced or voluntary liquidation of the Fund. Both tiers are junior to the senior creditors of the Fund (TCX's counterparties) and qualify in this sense as 'capital' available to support the obligations towards them. Next comes the Shares Class A, which top Tier 1. These are held by development finance institutions and funds, whereas the Subordinated Convertible Debt and the First-Loss Loan are held by government Donors.

The activated Cover Amount of the EC Capacity Facility is qualified as Available Tier 1 Capital due to its irrevocable and unconditional nature. See Note 19 for further disclosure.

The Fund's capital requirements are based on two ratios:

- Minimum Total Capital ratio<sup>9</sup> of 14% (Tier 1 plus Tier 2 capital over Risk Weighted Assets); (2021: 14%). The actual ratio was 28% at year-end 2022 (2021: 27%)
- Minimum Tier 1 ratio of 10% (Tier 1 capital over Risk Weighted Assets); (2021: 10%). The actual ratio was 28% at year-end 2022 (2021: 27%).

If either ratio falls below the agreed threshold, a Liquidation Trigger Event will have occurred, requiring the Fund Manager to liquidate the Fund within a period of one year following an unremediated stand-still period, subject to investor approval. The capital ratios are tested at the end of each business day.

The Fund maintains an internal capital adequacy assessment process ("ICAAP") to periodically review and assess the Fund's capital position, notably the amounts available to support the portfolio's growth while reserving sufficient amounts to cover stress scenarios.

During the reporting period, the Fund complied with these minimum internal capital requirements.

## Dividend and dividend policy

In accordance with the Investors' Agreement, dividends may be paid out to shareholders if the Fund generates a profit that outpaces the Fund's growth potential, leading to inefficient capitalization for the foreseeable future.

<sup>9</sup> Capital ratio: The Capital ratio is a solvency indicator, explaining the relationship between risk capital and risk weighted assets. The Fund's (minimum) capital ratio implicitly acts as the Fund's (maximum) leverage ratio within the meaning of the AIFMD.

## 19. EC Capacity Facility

The EC Capacity Facility is an unfunded guarantee from the European Fund for Sustainable Development of the European Commission (EFSD) -- with KfW as implementing partner -- to pay on demand to TCX (irrevocably and unconditionally) up to EUR 145 million (2021: EUR 145 million) in case of a TCX Liquidation Event, as defined in the Investors Agreement. In exchange for receiving the cash from the EFSD, TCX will issue B-shares to the European Commission directly (or, if requested, to a nominee of the European Commission), on exactly the same basis as the Subordinated Convertible Debt will convert into B-shares in case of a Liquidation Trigger Event. The expiry date of the EC Capacity Facility is 12 November 2035.

The facility closed on 12 November 2020 and was restated on 26 February 2021. As per 31 December 2022, the activated Cover Amount of the facility amounts to EUR 145 million (USD 154,7 million) (2021: EUR 80 million equivalent to USD 91,1 million). Activating the full amount of the facility required achieving certain volume targets in Sub-Saharan Africa.

The guarantee fees payable on the facility amounted to 20 bppa to KfW of the average daily Cover Amount from 12 November 2020; 18 bppa to KfW from 23 December 2020; and 43 bppa from 1 July 2021 onwards (18 bppa to KfW and 25 bppa to the EC).

## 20. EC Pricing Facility

The EC Pricing Facility is an unfunded guarantee from the European Fund for Sustainable Development of the European Commission (EFSD) – with KfW as implementing partner – to pay on demand to TCX (irrevocably and unconditionally) up to EUR 20 million (2021: 20 million) to provide financial institutions based in Sub-Saharan Africa and the European Neighborhood with enhanced access to synthetic local-currency borrowings, and to address short- and medium-term funding requirements triggered by the Covid pandemic in these regions (whilst not exposing the borrowers to currency risk). With the support of this Facility, TCX offers price discounts in currencies where TCX's risk-based pricing does not work due to structural impediments (e.g., caps on lending rates). By doing so, the Facility aims to contribute to the stabilization of institutions and to create local-currency lending capacity when and where most needed.

A summary of the Facility's characteristics are as follows:

- TCX is assured of achieving a minimum return of 2.5% on a portfolio of eligible trades;
- The Guaranteed Return Amount is calculated by using 2.5% of the notional outstanding hedged amount;
- The difference between the Forecasted Return Amount and the Guaranteed Return Amount (the Individual Claim Amount) is calculated for all covered transactions;
- The Individual Claims Amounts are summed up for all deals that mature within a financial year. If the aggregate is positive, there is no claim on the EC (the minimum return has been exceeded);
- The Cover Amount (or maximum possible payout to TCX) is EUR 20 million;
- The Effective Date of the Facility is 26 February 2021;
- The payout period (the Cover Period) is 7 years from the Effective Date (i.e., 26 February 2028);
- The deal origination period (the Investment Period) is 2 years from the Effective Date (i.e., 26 February 2023);
- There is no claw back on paid out claim amounts (no netting arrangement over the years).

As of the effective date of the Facility TCX has paid a one-off guarantee facility fee of EUR 200 (EUR 100 for KfW and EUR 100 for the EC).



## *Movement in the EC Pricing Facility Receivable during the period*

(All amounts in thousands USD)	2022	2021
Opening balance	1,459	-
Changes in fair value from derivative financial instruments	3,678	1,459
<b>Total EC Pricing Facility Receivable end of year</b>	<b>5,137</b>	<b>1,459</b>

## *Movement in the Deferred Income on the EC Pricing Facility during the period*

(All amounts in thousands USD)	2022	2021
Opening balance	1,314	-
Changes in fair value from derivative financial instruments	3,678	1,459
Realized deferred EC Pricing Facility Income	(452)	(146)
<b>Total Deferred EC Pricing Facility Income end of year</b>	<b>4,539</b>	<b>1,314</b>

At year end the EC Pricing facility amount consists of 27 deals (2021: 12 deals).

## **21. Net result on financial instruments at fair value through profit or loss**

The net results on financial instruments at fair value through profit or loss are detailed follows:

### **2022**

(All amounts in thousands USD)	Profits		Losses		Net result
	unrealized	realized	unrealized	realized	
Cross Currency Swaps- Primary	153,602	336,727	(204,322)	(193,476)	92,531
Cross Currency Swaps- Hedging	49,220	53,063	(68,407)	(100,508)	(66,632)
FX forward- Primary	26,310	31,533	(21,409)	(5,187)	31,247
FX forward- Hedging	25,545	9,799	(32,879)	(31,251)	(28,786)
FX Swap- Hedging	-	57,524	-	(57,593)	(69)
FX spots	-	500	-	(338)	162
Debt instruments	13,899	625	(10,815)	(12,525)	(8,815)
<b>Total</b>	<b>268,576</b>	<b>489,771</b>	<b>(337,832)</b>	<b>(400,878)</b>	<b>19,638</b>

### **2021**

(All amounts in thousands USD)	Profits		Losses		Net result
	unrealized	realized	unrealized	realized	
Cross Currency Swaps- Primary	193,774	312,573	(113,936)	(181,979)	210,432
Cross Currency Swaps- Hedging	36,599	24,353	(73,200)	(72,914)	(85,162)
FX forward- Primary	37,431	25,110	(17,855)	(2,679)	42,007
FX forward- Hedging	22,472	2,602	(29,586)	(22,403)	(26,915)
FX Swap- Hedging	-	84,697	-	(84,216)	481
FX spots	-	539	-	(150)	389



Debt instruments	775	3,129	(12,559)	(6,974)	(15,629)
<b>Total</b>	<b>291,051</b>	<b>453,003</b>	<b>(247,136)</b>	<b>(371,315)</b>	<b>125,603</b>

The interest component included in the Cross Currency Swaps amounts to USD 145,779 (2021: USD 138,286).

## 22. Foreign currency translation

Realized and unrealized exchange rate differences consist of realized and unrealized translation gains and losses on assets and liabilities denominated in currencies other than the US Dollar. The total foreign currency translation result amounts to a loss of USD 3,909 (2021: loss of USD 4,802). For the translation of the non-USD positions at balance sheet date, a closing rate of EUR 0.938 (2021: EUR 0.883) per USD has been applied in preparation of these financial statements.

## 23. Interest income

The following table details the interest income during the reporting period.

(All amounts in thousands USD)	2022	2021
<i>Financial instruments at fair value through profit or loss</i>		
Commercial paper	2,484	63
Floated rate notes	2,652	1,095
Fixed rate bonds	3,302	3,455
Subtotal debt instruments	8,438	4,613
<i>Cash and cash equivalents</i>		
Cash collateral	1,504	(395)
Subtotal cash and cash equivalents	1,504	(395)
<b>Total interest income</b>	<b>9,942</b>	<b>4,218</b>

## 24. Other general expenses

The following table details the other general expenses during the period.

(All amounts in thousands USD)	2022	2021
Legal fees	116	237
Rating agency fees	134	147
Guarantee fees	300	296
Pricing Facility fee	-	237
Compliance fees	46	55
Tax advisory fees	62	13
Research fees	354	397
Other expenses	265	275
<b>Total other general expenses</b>	<b>1,277</b>	<b>1,657</b>

## 25. Legal proceedings

In the course of its normal activities, the Fund could face claims in civil lawsuits and disputes. Presently, there is no dispute considered to be with merit, and/or if found to be so, likely to have an adverse impact on the Fund.

## **26. Personnel**

The Fund did not employ any personnel during the reporting period ending 31 December 2022 (2021: none)

## **27. Assets Under Management**

As defined under the AIFMD, the Assets Under Management ('AUM') of the Fund at 31 December 2022 totaled USD 6,182 million (2021: USD 6,335 million), including the derivatives portfolio at notional value.

## **28. Leverage**

As defined under the AIFMD, the Leverage of the Fund at 31 December 2022 was 6.6 times its NAV using the Gross Method, and 4.4 times its NAV using the Commitment Method (2021: 7.0 times and 4.6 times, respectively). The Fund calculates these leverage measures solely for reporting purposes to the Dutch Central Bank. For risk and capital management purposes, the Fund relies instead on monitoring its available capital to risk weighted assets ratio, as detailed in Note 18.

## **29. Fund documentation**

The totality of the documents concerning TCX's corporate status and its objectives, funding arrangements, policies, management, operations, and financial results are available to existing investors in the secure area of the Fund's website ([www.tcxfund.com](http://www.tcxfund.com)). For permission to access this secure area of the website, prospective investors are invited to contact the Fund Manager at [info@tcxfund.com](mailto:info@tcxfund.com). For non-investors, the website only provides publicly released information.

## **30. Proposal for profit appropriation**

Appropriation of profit will be determined in accordance with articles 29 and 31 of the Articles of Association of the Fund.

The statutory managing board proposes to the general meeting to allocate the operating income of USD 8,946 for the period ended 31 December 2022 as follows: for an amount of USD 8,946 to the other reserves corresponding with each relevant class of shares. As per 31 December 2022, 1,053 shares are in issue. No dividends shall be distributed to shareholders with respect to the period ended 31 December 2022.

## Significant accounting policies, estimates and judgments

### 31. Summary of significant accounting policies

#### Basis of preparation

The financial statements are prepared on a fair value basis for financial assets and financial liabilities at fair value through profit or loss. Certain financial assets and financial liabilities are stated at amortized cost.

The Statement of financial position presents the assets and liabilities in decreasing order of liquidity and does not distinguish between current and non-current items. The Fund's assets and liabilities are generally held for the purpose of being traded or are generally expected to be realized within one year with the exception of the Primary Investments, the long-term Subordinated Loan, the Subordinate Convertible Debt, Subsidies and the associated Grant and subsidy elements linked thereto.

The accounting policies have been consistently applied by the Fund and are consistent with those used in the previous year. All amounts have been rounded to the nearest thousand unless otherwise indicated.

#### Adoption of new standards and amendments to existing standards

There are no new standards or amendments and interpretations to existing standards that could potentially impact the financial statements of the Fund.

#### New standards, amendments and interpretations to existing standards which are relevant to the Fund and not yet effective

A number of new standards, amendments to standards and interpretations are effective for annual periods beginning after 1 January 2022, and have not been early adopted in preparing these financial statements. None of these are expected to have a material effect on the financial statements of the Fund.

#### Functional currency translation

##### Functional currency and presentation currency

The functional currency of the Fund is the United States Dollar (USD), reflecting the fact that the majority of the transactions are settled in USD. The Fund has adopted the USD as its presentation currency as all of the contributions made by the investors of the Fund are denominated in USD.

##### Transactions and balances

All recognized assets and liabilities denominated in non-USD currencies are translated into USD equivalents using year-end spot rates. Transactions in foreign currencies are translated at the rates of exchange prevailing at the date of the transaction. Resulting exchange differences on the financial instruments at fair value through profit or loss in foreign currencies are recorded in the income statement as part of the investment result. Realized and unrealized exchange differences on other assets and liabilities are also recorded in the income statement and disclosed as foreign currency translation.

#### Financial instruments

##### Classification

Financial instruments at fair value through profit or loss - the Fund classifies all derivative financial instruments (which may include foreign exchange contracts, interest rate futures, forward rate agreements, currency and interest rate options, both written and purchased as well as other derivative financial instruments) as financial instruments at fair value through profit or loss. The Fund classifies investments in debt securities as financial instruments at fair value through profit or loss.

Subordinated (convertible) debt, grants linked to the subordinated convertible debt, First loss loan and grants linked to the First loss loan - the Fund classifies these instruments as financial liabilities in accordance with the substance of the contractual arrangements, given that the total expected cash flows



attributable to the instrument over its life are not based substantially on the profit, the change in the recognized net assets, or the change in the fair value of the recognized and unrecognized net assets of the Fund during the life of the instrument.

The following financial instruments are classified as financial instruments at amortized cost:

Other receivables, accrued expenses and other payables, cash collateral (paid and given) and cash and cash equivalents.

The Fund's accounting policy regarding the redeemable shares Class A is described below.

#### *Recognition*

The Fund recognizes all financial instruments on its balance sheet when it becomes a party to the contractual provisions of the instrument. Financial instruments at fair value through profit or loss are initially recognized using trade date accounting. Gains and losses are recognized from this date on.

Drawdowns under the Subordinated Convertible Debt and First Loss Loan facility are treated as loans that include a grant element (further referred to as Grants linked to the Subordinated Convertible Debt and Grants linked to the First Loss Loan, together "the Grants"). The Grants are calculated as the difference between the initial carrying value of the loans (its fair value) and the proceeds received (its book value).

#### *Measurement*

All financial instruments are initially measured at fair value (transaction price). Furthermore, the following measurement principles are applied:

Financial instruments at fair value through profit or loss - Transaction costs on financial instruments at fair value through profit or loss are expensed immediately. After initial recognition, financial instruments at fair value through profit or loss are measured at fair value, with changes in their fair value recognized as gains or losses in the statement of comprehensive income.

Subordinated (convertible) debt, grants linked to the subordinated convertible debt, First loss loan and grants linked to the First loss loan - the Subordinated Convertible Debt, First Loss Loan and the Subordinated Loan are recorded as liabilities on an amortized cost basis using the effective interest rate method until extinguished upon conversion, restructuring or at the instrument's maturity date. The Grants are amortized over the lifetime of the Subordinated Convertible Debt and First Loan Loss respectively.

Other receivables, accrued expenses and other payables, cash collateral (paid and given) and cash and cash equivalent- these financial instruments are recognized at fair value and subsequently stated at amortized cost using the effective interest method.

#### *Fair value measurement principles*

Commercial paper and Debt Instruments - For all financial instruments at fair value through profit or loss for which a market price is available, the market price is used and the instruments are classified as Level 1 instruments. Where the market price is not available, the fair market value is determined using market reference rates and market standard cashflow discounting methodologies and the instruments are classified as Level 2 financial instruments.

Cross currency interest rate swaps (CCIRS) and FX Forward contracts - the Fund employs these instruments in its portfolio for three reasons:

- Primary Investments: long-term investment transactions in developing country currencies directly in line with the primary purpose of the Fund;
- Trading Investments: transactions with investment banks, usually short-term, with the purpose of diversifying the Fund's overall currency exposure; and
- Hedging Investments: transactions with the purpose of concentration and balance sheet management.

These portfolios are valued using market standard cashflow discounting methodologies and are classified as Level 2 where TCX uses observable market inputs into the models (i.e., where TCX is a price-taker), and Level 3 where TCX uses non-observable inputs into the models (i.e., where TCX is a price-maker and uses FPAS data and NDF spreads approved by the Pricing Committee).

Frontier Clearing Fund Junior (TCX) - the fair value of the Frontier Clearing Fund Junior Units are determined using valuation models for which not all inputs are market observable prices or rates. The fair valuation of these units is based on discounted future cash flows and is published monthly by the custodian of the Frontier Clearing Funds.

#### *Impairment of financial instruments at amortized cost*

The Fund assesses at each reporting date whether there is objective evidence that a financial asset or a group of financial assets is impaired and recognizes a provision for impairment when such evidence exists. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default or significant delay in payments are objective evidence that these financial assets are impaired. The carrying amount of these assets is reduced through the use of an impairment account which is calculated as the difference between the carrying amount and the present value of estimated future cash flows, net of any collateral held.

#### *Derecognition*

The Fund de-recognizes a financial asset when the contractual rights to the cash flows from the financial asset expire or it transfers the financial asset and the transfer qualifies for de-recognition. A transfer will qualify for de-recognition when the Fund transfers substantially all the risks and rewards of ownership. A financial liability is derecognized when the obligation specified in the contract is discharged, cancelled or expired.

#### *Offsetting financial instruments*

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously.

## **Subsidies granted by third parties and deferred subsidy income**

The Fund recognizes subsidies granted on the Statement of financial position once the Fund complies with all conditions and the Fund has received the cash upfront when agreed. The subsidies granted are reclassified as deferred subsidies income when transactions are executed. Deferred subsidy income is recognized in Statement of Comprehensive Income on a systematic basis over the period of the allocated financial instruments and presented as an adjustment to the (change in) fair value of a transaction or a portfolio of transactions for each relevant maturity year.

## **Statement of cash flows**

The statement of cash flows is prepared according to the direct method. The statement of cash flows shows the Fund's cash flows for the period divided into cash flows from operations and financing activities and how the cash flows have affected cash funds.

For the purposes of the statement of cash flows, financial instruments at fair value through profit or loss are included under operating activities. Cash flows from financing activities include proceeds from subscriptions and payments for repurchase of shares of the Fund. As the nature of the Fund is to invest in financial instruments, all cash flows related to investments are classified as cash flows from operating activities.

## **Shares Class A**

The Fund's Class A shares are redeemable at the shareholder's option and are classified as financial liabilities. These shares are recognized and measured at their net asset value, being the net present value of the assets minus the net present value of the liabilities. Any distributions to holders of these shares are recognized in the income statement as distribution to holders of redeemable shares Class A.

## **Income and expense recognition**

Income is recognized to the extent that it is probable that the economic benefits will flow to the Fund and the income can be reliably measured. For debt instruments, commercial papers, cash collateral and interest received from Donor Assets, the change in fair value will be classified as a result on financial instruments at fair value through profit or loss. The interest revenue and expense on these instruments are presented as interest income as a separate line item. The benefits of government grants are amortized and presented in the statement of comprehensive income over the lifetime of the Subordinated Convertible Debt and are deducted from the line-item Contributions to Donor Assets.

The Management Fee is based on invoices as long as they do not exceed the budget approved by the Supervisory Board. The Performance Fee is determined based on a separate performance assessment by the Supervisory Board against the performance targets agreed with the Fund Manager and approved by the Investors.



## **Taxation**

The Fund has received a ruling from the Dutch tax authorities that it is eligible for an exemption from corporate income tax (The Fund is a “vrijgestelde beleggingsinstelling” or “VBI”), under the terms of legislation passed through The Netherlands’ Parliament on 1 August 2007. Related to this the Fund is also exempt from withholding any taxes due on any dividends paid to its shareholders.

## **Cash and cash equivalents**

Cash and cash equivalents in the statement of financial position comprise cash on hand, short-term deposits in banks and brokers, money market funds, and cash collateral provided in respect of derivatives, securities sold short and securities borrowing transactions that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, with original maturities of three months or less.

## **Contingent asset**

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of TCX.

In November 2020, TCX entered into a contract with KfW (the EC Capacity Facility) to increase access to local currency borrowing to institutions based in Sub-Saharan Africa and to address short- and medium-term funding requirements triggered by the ongoing global health crisis. The EC Capacity Facility is an irrevocable and unconditional unfunded guarantee that contains the right for KfW to receive B-shares of TCX after it pays the covered amount to TCX (the contingent asset), at any moment or when the 14% capital ratio is reached and TCX’s investors take the decision to liquidate.

The EC Capacity Facility is classified as a contingent asset and further disclosed in Note 19 (current status) and Note 18 (capital impact).

## **Events after the reporting period**

The financial statements are adjusted to reflect material events that occurred between the end of the reporting period and the date when the financial statements are authorized for issue, provided they give evidence of conditions that existed at the reporting date. Material events that are indicative of conditions that arose after the balance sheet date are disclosed, but do not result in an adjustment of the financial statements themselves.

## **32. Significant accounting estimates and judgment in applying accounting policies**

Application of the accounting policies in the preparation of the financial statements requires the Fund Manager to apply judgment involving assumptions and estimates concerning future results and other developments, including the likelihood, timing or amount of future transactions or events. There can be no assurance that actual results will not materially differ from those estimates. Accounting policies that are critical to the financial statement presentation and that require complex estimates or significant judgment are described below.

### *Valuation of financial instruments*

The fair value measurement of financial instruments may include valuation based on non-market observable inputs, for instance where the Fund invests with maturities longer than those available on the market or when there are no markets at all. The valuation process of such investments is organized as follows.

### Governance of the valuation process

Within TCX, there is a clear functional and hierarchical separation of functions between the pricing, valuation and risk monitoring and control teams, that is presently reinforced by having these functions performed by separate companies (TIM, the back-office service provider, and the Risk Monitor, respectively). Each is a member of RISKCO, which is the established venue for addressing operational issues and incidents, including those related to the use of estimates. In case the parties cannot agree, each has a right of appeal to the TCX Supervisory Board, which generally ensures a good adherence to TCX's rules and procedures and a satisfactory resolution of issues and incidents before their escalation.

The parties involved are required to follow TCX's Operational Guidelines precisely. These prescribe each step in the process of pricing, valuing and reporting TCX's positions, and include mandatory procedures for approving new instruments for investment or capital raising purposes (and any changes thereto). Among these procedures is the requirement to submit to RISKCO a Product Approval document that details the accounting, valuation, reporting and disclosure requirements of the new or amended financial instruments.

TCX's uses its Valuation Policy as the central reference point for detailing the models and core assumptions and variables used to value its positions. The Valuation Policy- and the related models and core assumptions and variables - is subject to annual review by RISKCO and sign-off by the TCX Audit Committee.

An independent Pricing Committee meets monthly to discuss the data sources and trends in each market and approve the benchmarks and NDF data that are fed into the pricing and valuation models. This committee is appointed by the TCX Supervisory Board and consists of FX market experts (both practitioners and academics) that are remunerated by TCX on a fixed fee basis. Where there are no markets, the PC approves macro-economic forecasting (FPAS) models developed by another independent company (OGRResearch), that is also remunerated by TCX on a fixed fee basis. A key part of calibrating these econometric models is retrospective testing of their key outputs (being forward-looking FX and interest rates).

The preparation of the monthly valuation and reporting process concludes with the back-office service provider preparing TCX's NAV and both TIM and the Risk Monitor approving its release. As TCX's independent Risk Monitor, Cardano Risk Management is itself appointed by the TCX Supervisory Board and remunerated by TCX on a fixed fee basis.

Assessing the adequacy and effectiveness of the controls of the product approval, model validation, plausibility, and NAV processes is a core aspect of the annual ISAE 3402 Operational Audit.

## Valuation principles

The Fund Manager applies the commonly used Discounted Cash Flow (DCF) methodology for calculating the net present value of the Cross Currency Interest Rate Swaps (CCIRS) and foreign currency forward contracts. The procedure is as follows:

- Market data is gathered and processed in accordance with approved sources by the Fund's back office.
- From the curve-building algorithm, discount factors are derived for each leg of the CCIRS or forward contract.
- For each leg, if the future cash flows are known (in the case of fixed-rate products) these future cash flows are discounted using the discount factors referred to above to arrive at the net present value of the leg.
- For each leg, if the future cash flows are unknown (in the case of floating-rate products) the back office calculates forward rates from the discount factors; then, using the forward rates, the back office calculates the expected cash flows. Expected cash flows are discounted using the discount factors to arrive at the net present value of the leg.
- The net present value of the non-USD leg (or non-EUR leg when applicable) is converted to USD (EUR, respectively) at the market observable spot rate.
- The fair value of the CCIRS and foreign currency forward contracts to the Fund is obtained by subtracting the net present value of the paying leg from the receivable leg.

The resulting valuation is compared with the independently derived valuation of the Risk Monitor using a similar approach. The Risk Monitor circulates a plausibility report to the Fund Manager on a monthly basis. All differences greater than 1% at individual transaction level are cross-checked and ironed-out where justified.

## Estimates used

Item	Measurement principle	Use of models and estimates
<b>Cash and cash equivalents</b>	Fair value	It is assumed that money market funds will be able to retain their par value.
<b>Liquidity investments</b>	Fair value	Market prices are available for most of these listed high-quality securities. If market prices are not available, TCX uses market standard DCF methodologies to value the instruments. The curves used are the Bloomberg swap curves for the relevant currency. In case the investment falls below AA, a credit spread adjustment may be made using the CDS curve for the instrument (or a close comparable).
<b>Derivative Investments (linear)</b>	Fair value	TCX uses market standard curve construction and DCF methodologies to price and value this book. As Level 2 ("observable inputs"), TCX uses interest and foreign exchanges rates, curves, and other variables obtained from Reuters, Bloomberg, central bank websites, and other publicly available (online) sources. As Level 3 ("non-observable") inputs, TCX uses internally generated FPAS and NDF data.
<b>Derivative investments (non-linear)</b>	Fair value	Black-Scholes for European style options (or similar for other products).

Item	Measurement principle	Use of models and estimates
<b>Frontclear investment</b>	Fair value	<p>TCX uses the reported value of the units to value its position (Level 1 technique, in line with the fact that the position is puttable to Frontclear at its reported value in case of a TCX liquidation). That said, TCX classifies the position as Level 3, because we know its value depends on bespoke models and data sets.</p> <p>Due to timing delays, TCX reports the units' previous month value.</p> <p>70% of the position is deducted from Available Capital in view of the estimate uncertainty (ALCO decision).</p>
<b>Subordinated Convertible Loan and First Loss Loan</b>	Amortized cost, split into a loan component and a grant component that amortizes over time	The grant component is calculated at initial recognition or amendment of the loan as the difference between its fair market value on the issuance or amendment dates and its nominal value on those dates. It then amortizes over time. For disclosure purposes, a bespoke FMV model is used, that assumes 20% TCX NAV volatility.
<b>Other Liabilities</b>	At amortized cost	Performance fee accruals are based on estimates of the salaries payable each year and the performance score the TCX SB may give to TIM.

## OTHER INFORMATION

### Profit appropriation

Appropriation of profit will be determined in accordance with articles 29 and 31 of the Articles of Association of the Fund. The relevant provisions read as follows:

#### Article 29

1. The Fund shall ensure that the annual accounts, the annual report, the report of the supervisory board, insofar instituted pursuant to article 20, and the information to be added by virtue of the law are held at its office as from the day on which the annual meeting is convened. Shareholders, and beneficiaries of a life interest in shares to whom the right to vote the shares accrue, may inspect the documents at that place and shall obtain a copy thereof, free of charge.
2. The general meeting shall adopt the annual accounts. The annual accounts may not be adopted in the event that the general meeting has been unable to inspect the auditor's statement referred to in article 27, paragraph 4, unless a legal ground is given in the information required to be added by law for the lack of the auditor's statement referred to in article 27, paragraph 4.
3. Unconditional adoption of the annual accounts shall not automatically serve to constitute a discharge of the members of the statutory managing board for the management, and of the members of the supervisory board, insofar instituted pursuant to article 20, for their supervision, insofar as such management of supervision is apparent from the annual accounts. The general meeting shall resolve such a discharge separately.
4. The provisions of these articles of association regarding the annual report and the information to be added by virtue of the law need not be applied if the Fund is a member of a group and all other relevant requirements of the law have been met.

#### Article 31

1. The statutory managing board shall determine which part of the profits shall be reserved by allocating that part to each relevant dividend reserve that corresponded with the relevant class of shares.
2. The profits that are not reserved in accordance with paragraph 1 shall be at the disposal of the general meeting.
3. Dividends may be paid only up to an amount which does not exceed the amount of the distributable part of the net assets.
4. Dividends shall be paid after adoption of the annual accounts from which it appears that payment of dividends is permissible.
5. The general meeting may resolve to pay an interim dividend provided the requirement of the second paragraph has been complied with as shown by interim accounts drawn up in accordance with the provision of the law.
6. The general meeting may be subject to due observance of the provision of paragraph 2 resolve to make distributions to the charge of any reserve which need not be maintained by virtue of the law.
7. For the computation of the profit distribution, the shares held by the Fund in its own capital shall not be included.



## **INDEPENDENT AUDITOR'S REPORT**

To: the shareholders, the supervisory board and the managing board of The Currency Exchange Fund N.V.