MOODY'S
INVESTORS SERVICE

ISSUER IN-DEPTH
31 August 2021

Rate this Research

RATINGS

TCX

	Rating	Outlook
Long-term Issuer	A1	STA
Short-term Issuer	--	--

TABLE OF CONTENTS

Analyst Contacts

Kathrin Muehlbronner +44.20.7772.1383
Senior Vice President
kathrin.muehlbronner@moodys.com

Lenaic Couderc +44.20.7772.1799
Associate Analyst
lenaic.couderc@moodys.com

Dietmar Hornung +49.69.70730.790
Associate Managing Director
dietmar.hornung@moodys.com

Alejandro Olivo +1.212.553.3837
Managing Director
alejandro.olivo@moodys.com

Anne Van Praagh +1.212.553.3744
MD-Gbl Strategy & Research
anne.vanpraagh@moodys.com

The Currency Exchange Fund - A1 stable

Annual credit analysis

OVERVIEW AND OUTLOOK

The credit profile of The Currency Exchange Fund NV (TCX) reflects the solid support it receives from its diverse group of mostly highly rated shareholders, which are also the main users of its services. TCX is a specialised finance vehicle that provides hedging of illiquid emerging market currencies. It was set up in 2007 by a group of multilateral and bilateral development finance institutions (MDBs/DFIs) to support their development mandate, by enabling them to lend in local currency while removing the currency risk from their balance sheets. TCX has solid capital buffers and its liquidity is very strong, sufficient to withstand a prolonged period of stress. Its risk management policies and practices are also sophisticated and robust.

These strengths are counterbalanced by volatile asset performance and weak asset quality, reflecting the inherently risky nature of TCX's business, which focuses on emerging market currencies and on the most illiquid parts of currency hedging. In addition, shareholders have the option to redeem their shares, under very strict conditions, which weakens our assessment of capital adequacy.

The stable outlook reflects our expectation of solid growth in TCX's business volumes over the coming years coupled with continued strong shareholder support. It also balances the volatile business profile with prudent and high-quality risk management policies and practices.

Upside rating pressures could develop if paid-in equity was made permanent and shareholder support became more skewed towards very highly rated entities. While TCX has solid levels of capital and subordinated loans at its disposal, we do not give full credit to these instruments given shareholders' redemption rights. Upside rating potential could also emerge if callable capital increased significantly further.

Downside rating pressure could develop in a scenario of severe losses and sharply deteriorating asset performance, coupled with evidence that shareholders were unwilling to provide additional capital. In such a scenario, TCX's capital levels would trend lower, potentially approaching the trigger levels at which shareholders would have to decide on the voluntary winding-down of the Fund.

This credit analysis elaborates on TCX's credit profile in terms of capital adequacy, liquidity and funding and strength of member support, which are the three main analytical factors in Moody's Supranational Rating Methodology.

Organizational structure and strategy

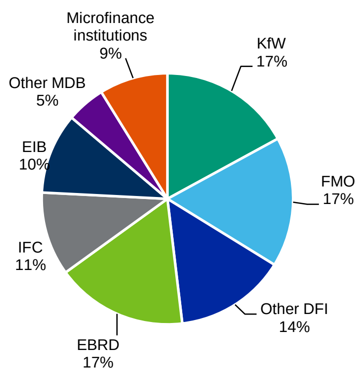
Hedging counterparty for development finance institutions

TCX is based in Amsterdam and is owned by 20 multilateral and bilateral development finance institutions and microfinance investment vehicles which are also its primary clients (see Exhibit 1). The main shareholders are highly rated and include Kreditanstalt fuer Wiederaufbau (KfW, Aaa stable); the European Bank for Reconstruction & Development (EBRD, Aaa stable); FMO, the development agency of the government of the Netherlands (Aaa stable); the International Finance Corporation (IFC, Aaa stable); and the European Investment Bank (EIB, Aaa stable).

TCX also receives funding from the governments of Germany (Aaa stable), Switzerland (Aaa stable), Denmark (Aaa stable) and the UK (Aa3 stable) in the form of convertible subordinated loans (CSL) (see Exhibit 2). In November 2020, TCX agreed a similar convertible debt structure with the EU (Aaa stable) in the form of an unfunded guarantee provided by the European Commission (EC). Shareholders and their assignees[1] typically together account for about 85%-90% of TCX's business volumes. By pooling their currency risk into a single portfolio, they achieve greater diversification than on their own and their large network has allowed the creation of a unique knowledge hub with significant expertise and transaction capability. TCX gives preference to its shareholders/investors compared to non-investors in its activities, and commits on a best-effort basis to execute annual hedging transactions with each of its shareholders of at least their respective capital contribution. TCX is active in countries identified in the Development Assistance Countries (DAC) list of the OECD.

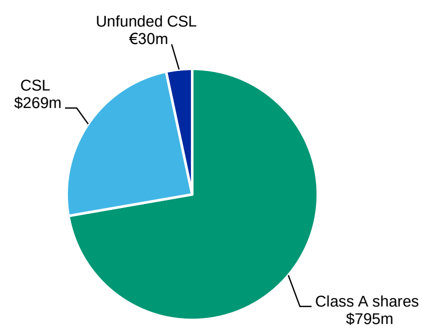
The Fund's main products are non-deliverable[2] cross-currency swaps and to a lesser extent foreign exchange forwards. Firstly, the basis for these so-called primary investments is that TCX must be additional to existing financial markets solutions, i.e. TCX only offers hedging solutions where no market exists or only at longer maturities than the market offers (additionality principle). Given the additionality principle, TCX is usually unable to immediately hedge itself and hence will typically absorb the risk. Secondly, TCX prices its products in accordance with prevailing market pricing principles to provide its counterparties with a competitive price while avoiding distorting existing markets or hindering potential market developments (market-based pricing principle). TCX has a separate and independent pricing committee composed of external members with expertise in exotic currencies and derivatives markets. Thirdly, TCX only transacts to offset an open currency exposure (non-speculation principle). As of the end of 2020, TCX had active swaps in 55 currencies.

Exhibit 1
Shareholder base is highly diversified
(Class A shares, as of June 2021)



Sources: TCX and Moody's Investors Service

Exhibit 2
Capital structure is made up of three different instruments
(December 2020)



Sources: TCX and Moody's Investors Service

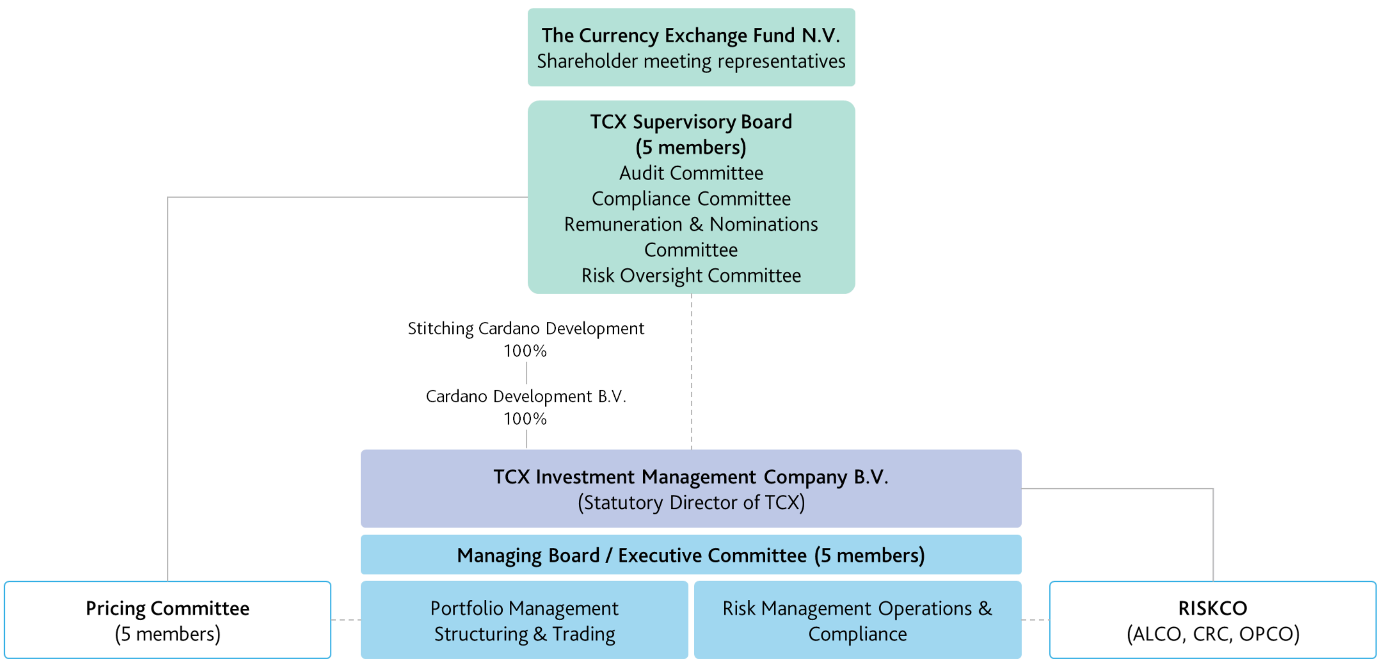
Oversight and organisation

The fund is licensed as an Alternative Investment Fund and its manager (TCX Investment Management) is classified and registered as an Alternative Investment Fund Manager; as such, TCX is subject to the requirements of the Alternative Investment Fund Managers

Directive (AIFMD) and regulated by the Dutch Financial Market Authority (for business conduct) and the Dutch central bank (for capitalisation and prudential supervision). Supervision and regulation are not as strict as for regulated financial institutions. TCX is subject to the EU's phased implementation of the European Market Infrastructure Regulation (EMIR) regime which regulates over-the-counter (OTC) derivatives in Europe. It also imposes numerous product-level requirements on counterparties active in the market, including aspects such as the prompt handling of trade confirmations and the amount and type of collateral that can be posted.

The general meeting of shareholders decides on TCX's objectives and risk appetite, and also appoints the Supervisory Board, which is responsible for the oversight and governance of the fund's policies and strategy. The Board is comprised of individuals of high international standing. It has established an audit committee, risk oversight committee, compliance committee, and remunerations and appointments committee (see Exhibit 3). Importantly, it has also established an independent pricing committee, with five members with expertise in pricing derivatives in frontier markets. In addition, three external parties monitor the fund's activities. TCX intends to move the risk management function in-house by 2023, and hired a chief risk officer in November 2020.

Exhibit 3
TCX organisational structure



Source: TCX and Moody's Investors Service

Paid-in capital can be redeemed by shareholders, lowering our assessment of its equity content

TCX is unusual in that its capital instruments have features that make them less permanent, lowering their ability to absorb losses in a financial stress scenario, when paid-in capital is most needed. Class A shares amounted to $795.6 million as of the end of 2020, including fully retained earnings (see Exhibit 4). Paid-in equity has more than doubled since 2015. We only account for 75% of the shares as paid-in equity because shareholders have a quarterly redemption option, subject to an annual cap of 20% of their paid-in capital.[3] In addition, shareholders have a one-off option on 31 December 2040 to redeem their shares in full in 2045, giving TCX five years to wind down the fund in an orderly fashion.[4] Usually, paid-in equity is permanently available to the MDB.

TCX retains considerable control over redemptions and can reject a shareholder's request if the redemption would lower its capital ratio below 18% of risk-weighted assets (a so-called redemption gate) or lead to a breach in its concentration limits. In addition, the redeeming shareholder must unwind existing transactions with TCX until the notional value of its outstanding swaps is less than three times its remaining capital. A shareholder who wants to divest all of its shares would thus have to repurchase all of its outstanding primary transactions with TCX. Several small shareholders have redeemed shares over the years, but none of the large and original shareholders has ever done so.

Apart from Class A shares, which are held by the MDBs, DFIs and microfinance institutions, TCX has obtained CSL worth $189.3 million maturing on 31 December 2045 from the German, Swiss and UK governments. The CSL automatically convert into Class B shares upon a voluntary wind down scenario, in which they rank junior to Class A shares and can only be redeemed after every shareholder has redeemed its initial investment plus a return equal to three-month LIBOR. As such, they provide a first-loss protection to trading counterparties and Class A shareholders and enhance the risk-return of their investment with the objective of attracting new shareholders. Given the similarities and junior treatment to Class A shares in a wind-down scenario we also assign 75% equity content to the CSL. We exclude $70.6 million in CSL and a $10.9 million first-loss loan provided by the Dutch government from our calculation of useable equity because the loans mature in December 2025.[5] Instead, we treat these loans as debt.

Exhibit 4

Capital structure protects derivative counterparties and Class A shareholders in wind-down scenario

Seniority

Instrument	Counterparty	Value (US$ million)	Assigned equity credit
Derivatives portfolio	**Trading counterparties**		-
Class A shares	**Shareholders**	**588.0**	**75%**
Convertible subordinated loans (CSL)		**257.9**	
2025 maturity	Dutch government	70.6	0%
2045 maturity	German, British and Swiss governments	187.3	75%
First-loss loan	**Dutch government**	**10.9**	**0%**

Sources: TCX and Moody's Investors Service

CREDIT PROFILE

Our determination of a supranational's rating is based on three rating factors: capital adequacy, liquidity and funding, and strength of member support. For MDBs, the first two factors combine to form the assessment of intrinsic financial strength. Additional factors that can impact the intrinsic financial strength, including risks stemming from the operating environment or the quality of management, are also considered. The strength of member support is then incorporated to yield a rating range. For more information, please see our Supranational Rating Methodology.

Capital adequacy score: baa3

Factor 1: Capital adequacy

Scale	aaa	aa1	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba2	ba3	b1	b2	b3	caa1	caa2	caa3	ca	c	
+										Assigned												-

Sub-factor scores

Capital position	**baa1**
Development asset credit quality	**b**
Asset performance	**baa3**

Capital adequacy assesses the solvency of an institution. The capital adequacy assessment considers the availability of capital to cover assets in light of their inherent credit risks, the credit quality of the institution's development assetsand the risk that these assets could result in capital losses.
Note: In case the Adjusted and Assigned scores are the same, only the Assigned score will appear in the table above.

We score TCX's capital adequacy at "baa3", in line with GuarantCo (A1 negative) and the African Export-Import Bank (Afrexim, Baa1 stable). This balances solid levels of paid-in capital and other funding support against high exposure to market risk, in particular foreign-currency risk, and an inherently volatile operating performance.

Moderate leverage as increasing hedging activity and equity injections mitigate rapid portfolio growth

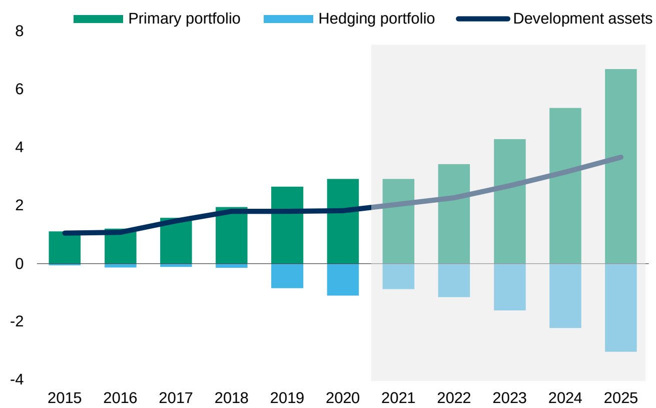
We calculate leverage as development-related assets over useable equity. In TCX's case, we consider as development assets the notional net value of its primary and hedging portfolio, which stood at $1.8 billion at the end of 2020 and $1.9 billion as of June 2021.

Over the past several years, and before the coronavirus crisis, TCX's portfolio had grown rapidly (see Exhibit 5). On a gross basis (both long and short positions), the primary portfolio reached $3.2 billion in 2020 up from $2.6 billion in 2019. Over 2016-19, the portfolio grew by around 20% on average per year. On a net basis, the growth of the portfolio has been similarly strong. However, business volumes have been lower than targeted last year because of the pandemic and the resulting inability of many of TCX's shareholders and investors to generate their intended business volumes. In addition, several of them restructured some of their loans, necessitating the restructuring of the associated derivatives. The volume of new primary deals was $985 million, compared to a target of $1.3 billion.

We also take into consideration TCX's hedging portfolio which stood at $1.2 billion at the end of 2020. It is mainly used as a risk management tool to stabilise its net exposure and free up capacity to provide more primary transactions. The hedges have to match the currency and maturity of the primary exposures, and in our view are effective in reducing TCX's market risk exposure while supporting the fund's mandate to develop local currency bond markets. Hedges are done with both commercial counterparties and since 2018 increasingly also with some shareholders via local-currency bonds. In those transactions, a shareholder issues a synthetic local currency bond on offshore markets. The issuer then swaps back its cash flows into dollars with TCX, effectively reducing the fund's net exposure to the local currency.

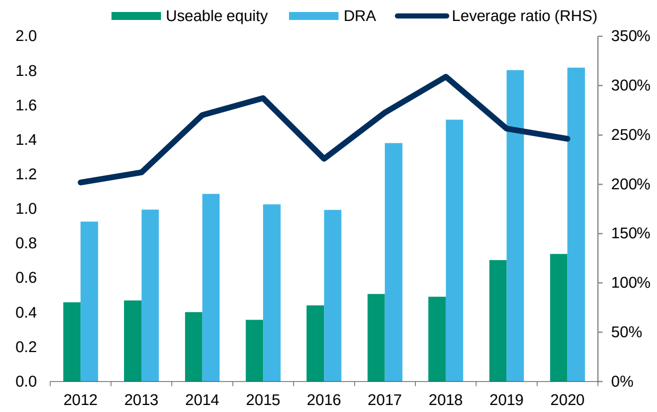
To calculate the leverage ratio, we only include $739.0 million as useable equity out of the total $1.1 billion in available capital in 2020 because of the treatment we apply to the various instruments (see Organisational structure and strategy). Equity injections amounted to $24 million in 2020, from one new and two existing shareholders. As a result of the strong growth in the hedging portfolio since 2018, our measure of leverage has declined to 246% in 2020 from 309% in 2018 (see Exhibit 6), slightly higher than the median for A-rated MDBs of 228%. We expect leverage to remain broadly stable even if the fund achieves its ambitious growth targets, assuming it continues to increase its hedging portfolio. For 2021, TCX targets a primary portfolio production of close to $1.3 billion and has pencilled in a production target of close to $2.7 billion by 2025, implying annual portfolio growth of 20% over that period. However, since it intends to increase its hedge ratio to 45% by 2025 from 41% in 2020, development assets under our definition should grow at a much slower pace, while we expect the capital base will continue expanding. It is worth noting that while these are not hard targets, they are important components of TCX's capital planning and management.

Exhibit 5
Portfolio has grown rapidly in recent years ...
(Notional swap portfolio, $ billion)



Sources: TCX and Moody's Investors Service

Exhibit 6
... and capital injections have kept leverage at moderate levels
($ billion and %)



DRA = development-related assets
Sources: TCX and Moody's Investors Service

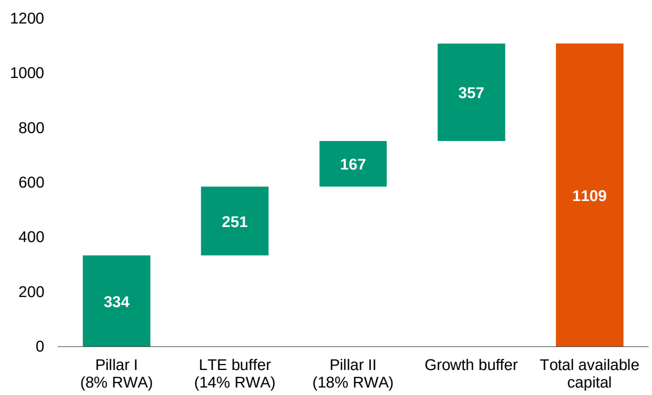
TCX follows Basel III rules to calculate its required capital levels, with separate calculations of risk weighted assets (RWA) for market, credit and operational risks. Its aim is to hold sufficient capital to implement its growth strategy and ensure business continuity, even under the most severe stress assumptions. Consequently, it has set a high minimum Core Equity Tier 1 (CET1) ratio of 10% of RWA as Pillar 1 capital rather than the standard 8% for commercial banks. A capital buffer of 75% of Pillar 1 capital is added to reach a minimum capital level of 14%; this is also the Liquidity Trigger Event level, as shareholders would have to decide whether to liquidate the fund or inject new capital.[6] TCX then adds a further 4% capital buffer to cover for potential underestimation of risks, including the capacity to sustain two extreme stress test scenarios.[7] The shareholders set a redemption gate at 18% of RWA, at which the fund can reject shareholders' redemption requests (see above). In reality, TCX targets a minimum capital ratio of 20%. TCX's actual capital ratio (total capital as per its definition) was 27% as of June 2021, giving it a large buffer of $357 million to grow the portfolio without requiring further capital (see Exhibit 7).

Focus on emerging market currencies results in weak asset quality ...

We score TCX's development asset credit quality (DACQ) as "b", in line with GuarantCo and the Gulf Investment Corporation (GIC, A2 stable) (see Exhibit 8). Credit risk is not TCX's main risk. TCX's counterparties are mainly its highly rated shareholders whose weighted average rating is high at A1; the five Aaa-rated shareholders accounted for over 50% of transactions as of March 2021. Commercial banks that act as hedging counterparts need to be rated at least Baa and incorporated in an OECD country. Strict collateralisation requirements reduce counterparty risk further.

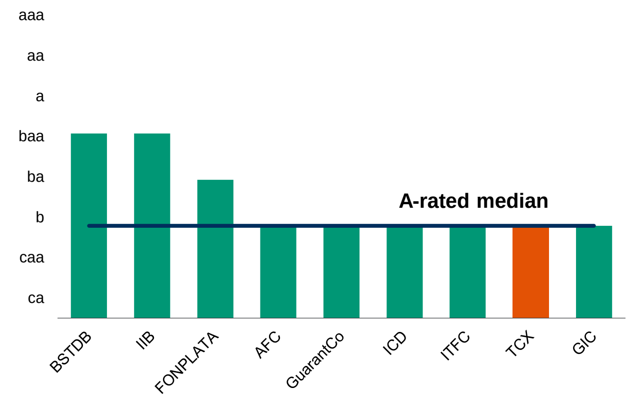
Instead, we focus on market risk as being more relevant for our assessment of asset quality. Market risk constitutes 92% of risk-weighted assets (applied to both derivative exposures and treasury assets). Within market risks, TCX's largest risk is foreign-currency risk (typically 60%-70% of total market risk) and to a lesser extent other market risks such as interest-rate risk.

Exhibit 7
TCX has sufficient capital buffers to grow further
($ million, June 2021)



Sources: TCX and Moody's Investors Service

Exhibit 8
Asset quality is low but in line with peers
(DACQ, 2020)

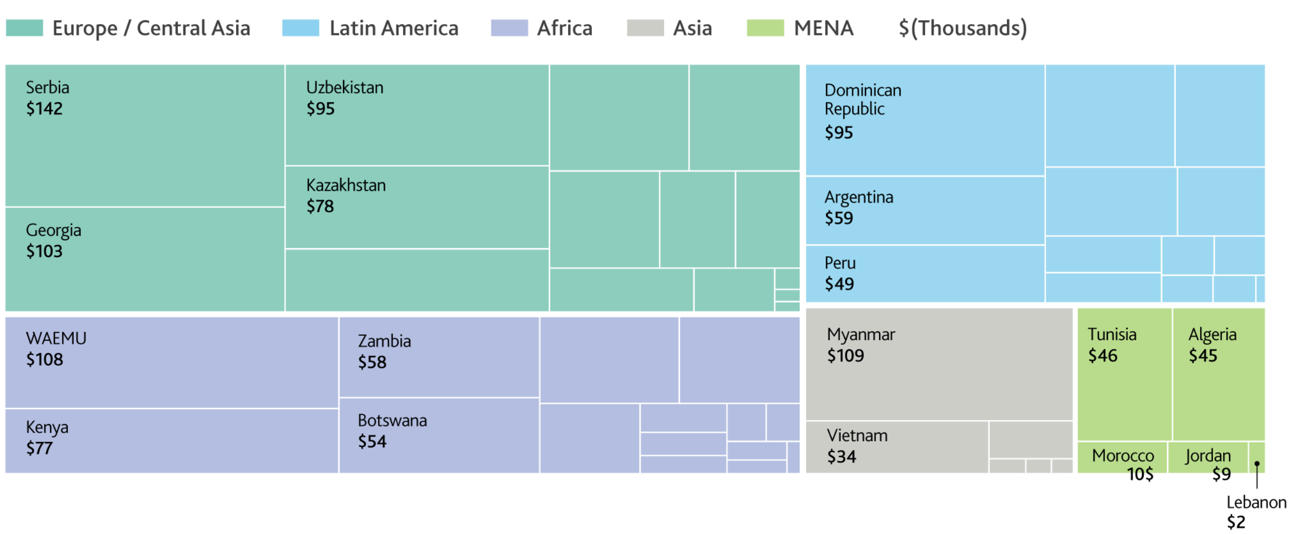


Source: MDBs and Moody's Investors Service

Our assessment of DACQ starts with an anchor point of “caa” given TCX's focus on emerging market currencies and the most illiquid parts of currency hedging. The fund is widely diversified across currencies (see Exhibit 9), which leads to a higher DACQ score of “b”. The top 10 currencies accounted for 51% of the net portfolio in 2020, which is slightly higher than in previous years (in 2019 it was 47%). At the end of 2020, the top three currencies were the Serbian dinar (7.8%), and the Myanmar kyat and the CFA franc (6.0% each). The currency composition changes frequently, but limits are strictly enforced and the number of actively traded currencies has remained consistently high at 40-55 currencies over the past eight years and TCX has offered swaps in over 100 currencies since its inception.

Exposure to a single currency cannot exceed 10% of the notional portfolio. On a regional basis, the fund has set limits ranging of 30%-50% of its notional exposure. At the end of 2020, the fund was well below its limits and the increased use of hedging instruments has helped to reduce TCX's exposure to single currencies.

Exhibit 9
Portfolio of swaps is well diversified across regions
'000$



Source: TCX and Moody's Investors Service

TCX's solid diversification provides some protection to regional economic and financial crises but in global shocks, such as the coronavirus pandemic, emerging market currencies usually move in the same direction. This was clearly seen in March 2020, when almost all currencies in the portfolio depreciated against the dollar, leading to TCX's largest-ever quarterly loss of $128 million. However, the unrealised mark-to-market losses were more than recovered in the following months, as markets reopened amid huge monetary and fiscal support globally.

... and drives volatile asset performance

TCX has no non-performing assets as such. All losses – including unrealised mark-to-market losses – on its portfolio directly flow into its financial results, with losses reducing the net asset value (NAV) of the fund and its useable equity (see Exhibit 10).

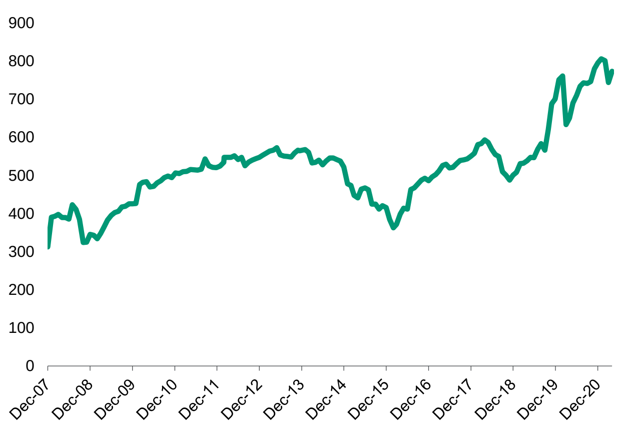
We instead consider TCX's historic loss performance along with the solid performance and profitability of recent years as indicators for asset performance, which we score at “baa3”. This compares with “baa1” for both GuarantCo and African Local Currency Bond Fund (ALCB Fund, Baa2 stable) which, similar to TCX, operate in emerging market local currencies. The score is also weaker than the “baa2” for EBRD and IFC, which both have relatively volatile asset and financial performance on account of their comparatively high share of equity investments.

TCX's largest loss over a 12-month period was $130.5 million between October 2014 and September 2015, which would translate into an asset performance score of “ba2”. We also consider the fund's regular stress tests which use its full dataset of monthly currency moves since January 1997; in a worst-case scenario, losses could be significantly higher. However, the inherent volatility and potential for large losses are counterbalanced to some extent by the fund's overall robust financial performance. On average, TCX has made a small positive return in its 13 years of existence and its monthly performance is skewed to marginally positive returns (see Exhibit 11). Even in 2020, the fund posted a small profit, despite the initial sharp depreciation of most emerging market currencies. By the end of the year, the $127 million loss recorded in March was more than compensated for and TCX posted a profit of $20 million for the year as a whole.

Exhibit 10

Losses directly impact paid-in capital

(Net asset value, $ million)

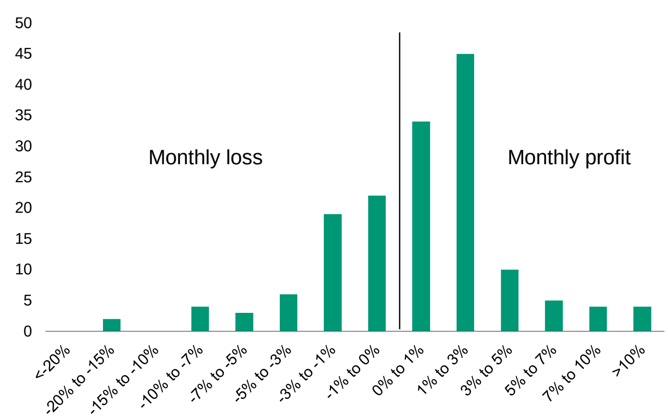


Sources: TCX and Moody's Investors Service

Exhibit 11

TCX posts small profits in most months

(Monthly change in net asset value, number of occurrences)



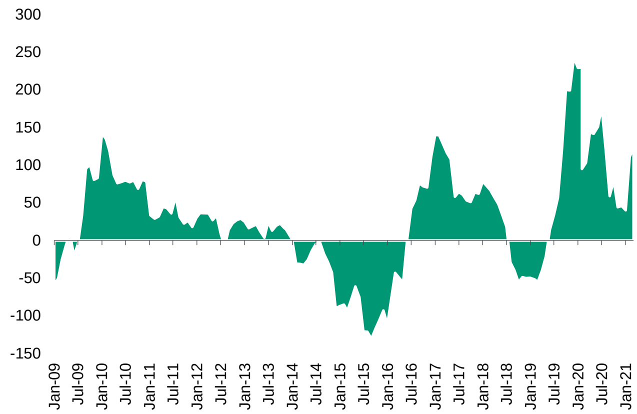
Sources: TCX and Moody's Investors Service

The fund generates positive financial results from three sources: (1) the net interest spread (carry) originating from the difference in local versus hard currency rates for open positions and from the bid-ask spread locked in when positions are hedged; (2) the appreciation of local currencies against the US dollar; and (3) interest income on its large Treasury asset portfolio, although this tends to be small given the high credit quality of the portfolio. The carry has been increasing in the past few years, helped by declining US interest rates. Over a longer time frame, the positive carry should be sufficient to cover losses from the depreciation of the fund's emerging market currencies. In 2020, only one currency produced a loss in excess of $10 million (the Zambian kwacha). The Georgian and Ukrainian currencies also underperformed, producing negative results of $7 million each. All other currencies in the portfolio produced results within a +/-$5 million range.

Longer-lasting regional crises tend to have a bigger impact on TCX's performance, such as in 2014-15, when TCX recorded its largest annual losses to date and again in 2018 (see Exhibit 12). Losses also tend to be concentrated in a limited number of currencies (see Exhibit 13); for example, in 2014-15 the losses on just three currencies (the Kyrgyz som, the Tajikistani somoni and the Armenian dram) accounted for 60% of the losses over those two years. All these currencies were indirectly impacted by the crisis in Ukraine (B3 stable) and the slump in oil prices given their high interconnectedness with Russia (Baa3 stable) and Kazakhstan (Baa2 stable) through remittances and export demand. In 2018, the losses were on account of renewed financial stress in Argentina (Ca stable) and also Sri Lanka (Caa1 review for downgrade). Overall, the five largest single currency losses account for over 70% of total historic losses.

Exhibit 12

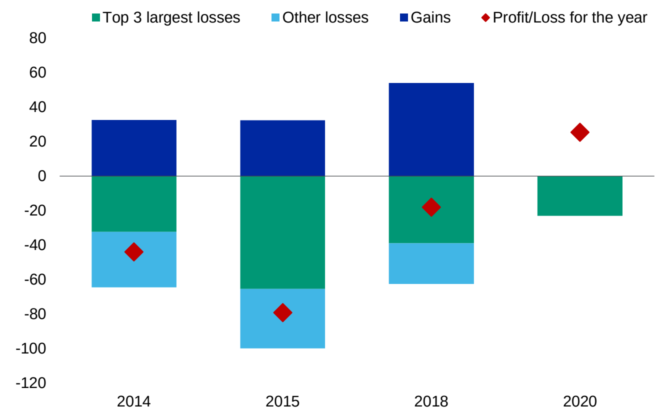
Largest losses were occurred in 2014-15
(12-month rolling sum of change in NAV, $ million)



Sources: TCX and Moody's Investors Service

Exhibit 13

Losses tend to be driven by a small number of currencies
($ million)



Sources: TCX and Moody's Investors Service

Liquidity and funding score: a2

Factor 2: Liquidity and funding

Scale	aaa	aa1	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba2	ba3	b1	b2	b3	caa1	caa2	caa3	ca	c	
+						Assigned																-

Sub-factor scores

Liquid resources	**aaa**
Quality of funding	**baa**

An entity's liquidity is important in determining its ability to meet its financial obligations. We evaluate the extent to which liquid assets cover net cash flows over the coming 18 months and the stability and diversification of the institution's access to funding.
Note: In case the Adjusted and Assigned scores are the same, only the Assigned score will appear in the table above.

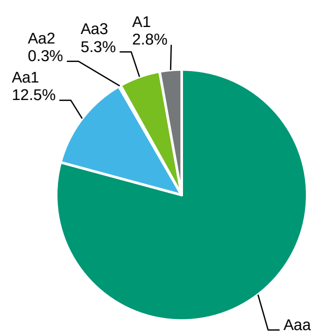
TCX's liquidity and funding score is set at "a2" and reflects a very strong liquidity profile with large liquidity buffers and prudent liquidity policies. The score also incorporates a funding profile in line with peers such as GuarantCo which similar to TCX does not raise funds in capital markets.

Very strong liquidity buffers mitigate liquidity risks stemming from margin calls

TCX has very solid levels of liquidity, which are essential given its high-risk business profile. Its treasury assets stood at $1.145 billion at the end of 2020, and $1.096 billion as of June 2021. Treasury assets are also of very high credit quality, so as to not add to the fund's already elevated market risk exposures. As per the fund's guidelines, investments are limited to bonds with a minimum rating of Aa3 as well as cash deposits, money market funds and commercial paper which can quickly be converted into cash (see Exhibits 14 and 15). Deposits can only be held in large systemic banks rated A2 or above. Around 80% are invested in Aaa-rated securities or cash deposits, and approximately 80% of assets have a remaining term shorter than one year.

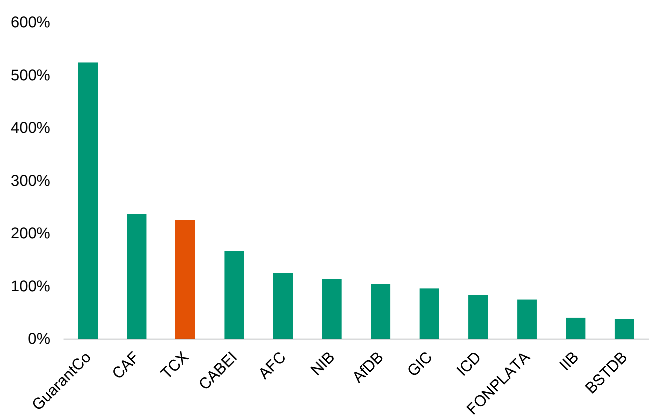
Liquidity risk primarily arises from margin calls on the swap portfolio. TCX only offers non-deliverable swaps, which eliminates convertibility risk given that all the transactions are settled in US dollar or euro and do not involve any local currency. As a result of fluctuations in the underlying rates of derivative instruments (foreign exchange rates, local interest rates and dollar interest rates), the fund regularly posts and receives collateral, with the net position typically in favour of TCX. Since its inception, the largest collateral that TCX had to post was $22.0 million in March 2021.

Exhibit 14
Liquidity is held in highly rated instruments
(Liquid assets, end of 2020)



Sources: TCX and Moody's Investors Service

Exhibit 15
Availability of liquid resources is stronger than most peers
(Liquid assets/net cash outflows, 2020)



Sources: MDBs and Moody's Investors Service

In addition to conservative asset allocation guidelines, liquidity policies are very prudent and rely on frequent and sophisticated stress testing. Under its internal guidelines, TCX uses a liquidity coverage ratio inspired by Basel III to define its liquidity requirements under a stress scenario. The ratio is defined as liquid assets of high credit quality over net stressed cash outflows over the next 12 months. The stress case assumes the worst historical portfolio performance over one month, rising margin calls and shareholder redemption of 20% of their capital. The fund targets a liquidity coverage ratio above 150% and has consistently stayed well in excess of this requirement. At the end of 2020, the ratio stood at 207%.

Our own measure of liquidity coverage differs somewhat from the fund's own metrics. We use its calculations of stressed cash outflows and only consider highly liquid assets such as cash and short-term bank deposits as well as securities rated A2 or higher. TCX's ratio of available liquid resources stood at 226% at the end of 2020, higher than most peers.

In the absence of debt, we assess quality of funding as moderate

Our assessment of the quality of funding is typically based on considerations such as the track record of bond issuance, the cost of funding relative to peers, the availability of credit lines and the diversity of funding sources and the investor base. We score TCX's quality of funding at “baa”, in line with GuarantCo and the Fondo Latinoamericano de Reservas (FLAR, Aa2 stable). Similarly to those entities, TCX has never issued any bonded debt but receives all its funding from development finance institutions and governments.[8] We assume that TCX would have reasonably good market access should it want or need to do so based on solid support from a group of highly rated shareholders and very strong liquidity metrics, while paying a moderate risk premium.

Qualitative adjustments

Qualitative adjustments to intrinsic financial strength

Adjustments	
Operating environment	**0**
Quality of management	**0**

The capital adequacy and liquidity and funding factors represent the key drivers of our assessment of an institution’s intrinsic financial strength (IFS). However, assessments of the operating environment and the quality of management are also important components of our analysis. To capture these considerations, we may adjust the preliminary IFS outcome that results from the capital adequacy factor and the liquidity and funding factor. The result of this analysis is the adjusted IFS outcome.

In our credit assessment of MDBs, we also take into account qualitative factors such as an MDB's operating environment and the quality of its management, including risk management. For the operating environment, this can only be in the form of a negative adjustment, whereas for the quality of management we may apply both negative and positive adjustments, to the combined capital adequacy and funding and liquidity scores that make up our assessment of an MDB's intrinsic financial strength.

We do not apply any such adjustment for TCX. Although TCX’s **operating environment** is highly risky given its exposure to emerging and frontier market currencies, we believe that the diversification of its derivative portfolio limits those risks.

TCX’s policies and standards are of very high quality and follow a very prudent approach, even compared with higher-rated MDBs. Its practices and standards closely follow Basel rules for commercial banks and are adapted to reflect its specificities and its predominant exposure to market risk. We positively note the existence of the independent pricing committee, but also tailored stress testing of the portfolio, long-term capital planning and very prudent liquidity management. Reporting and transparency is of very high quality and frequent. The fund performs an annual internal capital adequacy assessment process (ICAAP) to ensure that all risks are fully captured and it has sufficient capital at hand to implement its strategy and ensure its continued existence.[9] However, the inherent riskiness of its activities requires a correspondingly higher degree of sophistication and we therefore view its **quality of management** as appropriate for its business model.

Strength of member support score: High

Factor 3: Strength of member support

Scale	Very High	High	Medium	Low	Very Low
+		Assigned			-

Sub-factor scores

Ability to support	**a1**
Willingness to support: Contractual	**aa3**
Willingness to support: Non-contractual	**High**

Shareholders' support for an institution is a function of their ability and willingness. Ability to support is reflected by the shareholders' credit quality. Willingness to support takes into consideration (1) the members' contractual obligations that primarily manifest in the callable capital pledge, a form of emergency support, and (2) other non-contractual manifestations of support to the institution's financial standing and mission. Strength of member support can increase the preliminary rating range determined by combining factors 1 and 2 by as many as three scores.
Note: In case the Adjusted and Assigned scores are the same, only the Assigned score will appear in the table above.

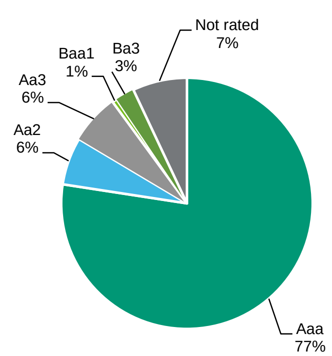
Our assessment of strength of member support is "High", reflecting the strong ability and willingness of its main shareholders to provide additional support if needed, as well as the availability of callable capital in the form of the EC guarantee. Other MDBs with a "High" strength of member support include GuarantCo, Islamic Corporation for the Development of the Private Sector (ICD, A2 stable) and the Islamic Trade Finance Corporation (ITFC, A1 stable).

Diverse group of highly rated shareholders and supporters have strong ability to provide support

With a weighted shareholder rating of A1, TCX's group of shareholders is among the strongest of rated MDBs (see Exhibits 16 and 17).[10] At the end of 2020, 69% of Class A shares were held by Aaa-rated institutions, while 78% of the convertible subordinated loans are provided by Aaa-rated governments. The average shareholder rating is skewed lower by the presence of small and unrated microfinance investment vehicles and impact investors, which account for around 7% of total capital and to which we assign an implicit Caa2 rating in line with our methodology. We do not expect those entities to provide additional support for TCX in case of need given their small size and other limitations.

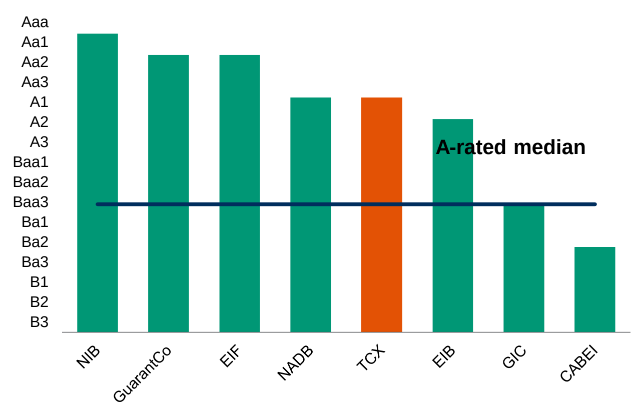
Shareholders continued to support TCX despite the pandemic and the share of Aaa- and Aa-rated shareholders increased to 90% at the end of May 2021 from 79% in 2019. In 2020, TCX received additional capital injections of a combined $24 million from the IFC, PROPARCO, a development agency of the government of France (Aa2 stable) and a microfinance investment vehicle, while the Swiss government provided a CSL of $1 million. In April 2021, TCX received a further $20.1 million from the IFC.

Exhibit 16
Shareholder base comprises mostly highly rated entities ...
(Useable equity by rating, end of June 2021)



Sources: TCX and Moody's Investors Service

Exhibit 17
... and is among the strongest of rated MDBs
(Weighted average shareholder rating, 2020)



Sources: MDBs and Moody's Investors Service

Callable capital in the form of EU guarantee provides additional buffer

Our key metric to assess contractual willingness to provide support is the ratio of callable capital to the stock of debt. In the case of TCX, we define as debt any portion of the CSLs that does not receive equity credit. At the end of May 2021, debt under our definition stood at $134 million and was covered at 68% by callable capital (see Exhibit 18).

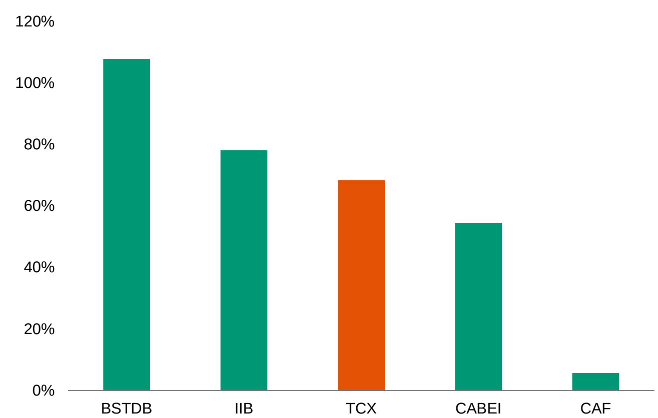
In December 2020, TCX received an unfunded commitment from the EC for up to a total €145 million. Given the unfunded nature of the facility, we consider the guarantee to be similar in nature to callable capital and therefore include it in our assessment of contractual willingness to support. The guarantee is structured in the same way as the CSLs. In case of a decision to wind down the Fund, the activated EC guarantee amount will be disbursed and turned into Class B shares, which will rank junior to Class A shares. The maturity of 2035. although shorter than the other convertible loans, is still long. We therefore also assign 75% equity credit to the guarantee facility, in line with our treatment of the CSLs. While only €30 million were activated by the end of 2020, we expect that at least an additional €70 million will be activated by the end of 2021, which we use as the basis for the above calculation of debt coverage. This results in a forward-looking score of “aa3” for contractual willingness to support.

Unique relationship with shareholders supports high non-contractual willingness to support

We assess shareholders' non-contractual willingness to support as “High” to reflect the fact that support from highly rated shareholders through capital injections has been long-standing and increasing over time. While many MDBs lend to their shareholder governments, the linkage here is even closer in the sense that TCX was explicitly set up to assume specific risks that shareholders would otherwise have to assume themselves at higher cost and risk. Some would not be able to extend local-currency loans to their borrowers at all without TCX, reducing their own development impact. Hence, their interest in the continued existence and solidity of TCX is very strong as long as exotic and illiquid currencies exist.

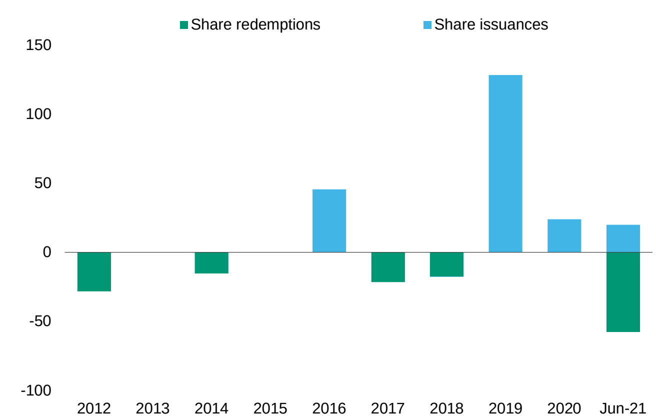
As mentioned, shareholders have the option to redeem their shares, although under very strict conditions. So far, seven shareholders have redeemed all or parts of their shares, mostly small microfinance investment vehicles (see Exhibit 19). The biggest shareholder to leave so far is the Japan Bank for International Cooperation (JBIC, A1 stable), which redeemed its shareholding of $57.8 million (7% of Class A shares) in early 2021. JBIC was not a particularly active user of TCX's services and the redemption does not impact our assessment of shareholder support.

Exhibit 18
Callable capital coverage is in line with peers
(Callable capital in 2020, % of total debt)



For the calculation of TCX's coverage ratio, we use our 2021 forecast for activation of the EC guarantee rather than year-end 2020 figures.
Sources: TCX and Moody's Investors Service

Exhibit 19
Redemptions are infrequent and smaller than capital subscriptions
($ million)



Sources: TCX and Moody's Investors Service

None of the large shareholders, which account for a combined 66% of total shares, has ever redeemed any shares. Over the years, TCX's shareholder base has expanded significantly and useable equity has increased to $795.5 million in 2020 from $553.8 million in

2012 (including retained earnings), indicating the relevance of the institution and its mandate. Several shareholders have repeatedly raised their stakes while new shareholders join on a regular basis. Net profits are fully retained and added to useable equity. Similar to shareholders, TCX's government supporters have repeatedly shown their support, in particular the German government which extended the maturity of its CSL by 20 years to 2045 in 2019. Both the UK and the Swiss governments have chosen the same 2045 maturity for their subordinated loans.

ESG considerations

How environmental, social and governance risks inform our credit analysis of TCX

Moody's takes account of the impact of environmental (E), social (S) and governance (G) factors when assessing supranational issuers' credit profile. In the case of TCX, the materiality of ESG to the credit profile is as follows:

Environmental considerations are not material to TCX's rating profile. That said, the currencies of emerging markets in which TCX is active might be negatively affected by natural disasters.

Social considerations are not material to TCX's rating profile. Although social considerations can have an impact on a country's exchange and interest rates, impacting TCX's liquidity through additional margining and development asset credit quality, the impact is indirect and the diversification of its currency exposure offsets this risk.

Governance considerations are material to the rating. The riskiness of TCX's activities calls for much more sophisticated risk management than other MDBs. TCX's policies and practices are appropriate for its business model and incorporate strict exposure limits, stress testing, the existence of an independent pricing committee and very conservative liquidity management.

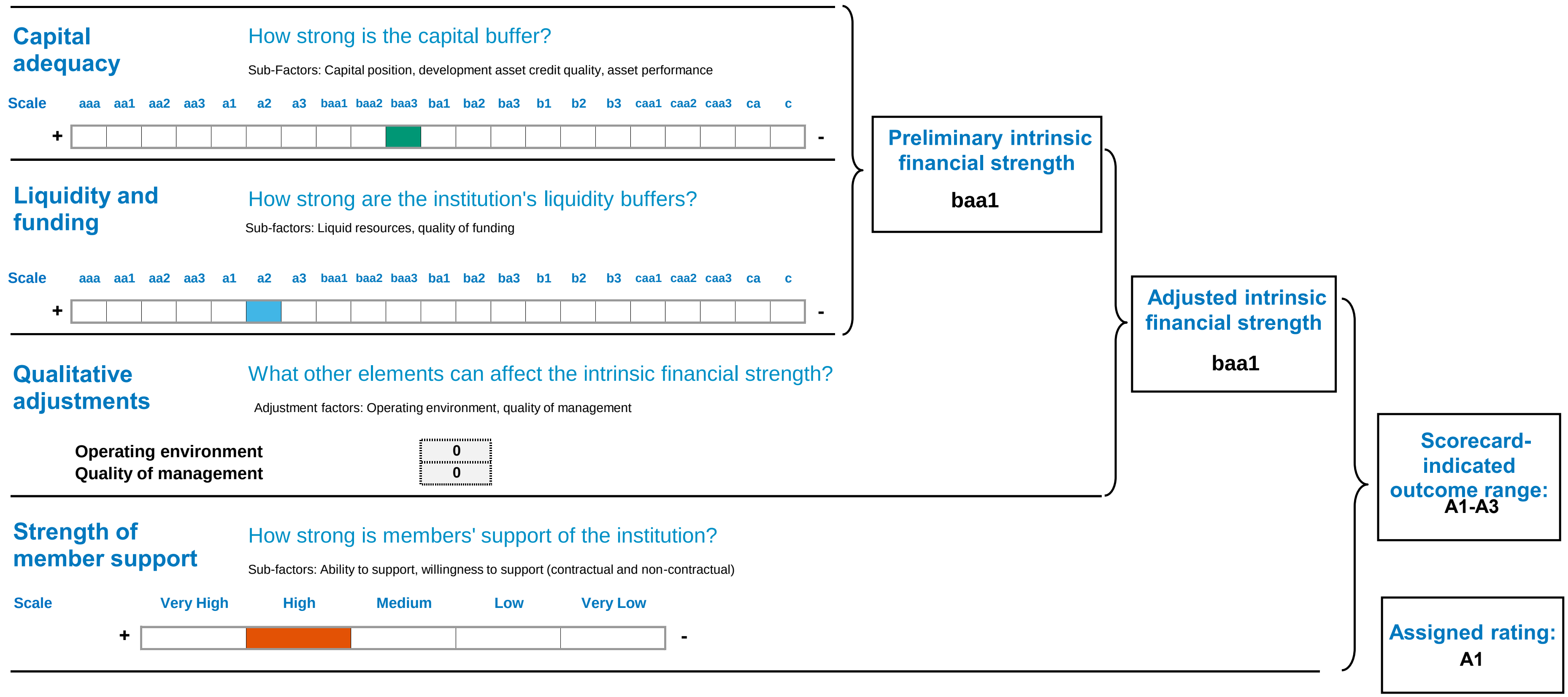
All of these considerations are further discussed in the "Credit profile" section above. Our approach to ESG is explained in our cross-sector methodology General Principles for Assessing ESG Risks. Additional information about our rating approach is provided in our Supranational Rating Methodology.

Rating range

Combining the scores for individual factors provides an indicative rating range. While the information used to determine the grid mapping is mainly historical, our ratings incorporate expectations around future metrics and risk developments that may differ from the ones implied by the rating range. Thus, the rating process is deliberative and not mechanical, meaning that it depends on peer comparisons and should leave room for exceptional risk factors to be taken into account that may result in an assigned rating outside the indicative rating range. For more information please see our Supranational Rating Methodology.

Exhibit 20

Supranational rating metrics: TCX



Source: Moody's Investors Service

Comparatives

This section compares credit relevant information regarding TCX with other supranational entities that we rate. It focuses on a comparison with supranationals within the same rating range and shows the relevant credit metrics and factor scores.

TCX has a unique business model among rated MDBs, with its predominant risk being market risk, leading to a much more volatile performance than most peers. Peers include other relatively small niche entities with a focus on local-currency lending and no (bonded or other commercial) debt such as GuarantCo and the ALCB Fund, as well as MDBs which combine a less risky business profile with generally weaker shareholder support, such as ITFC, GIC, Black Sea Trade and Development Bank (A2 stable) and Africa Finance Corporation (AFC, A3 stable).

Exhibit 21

TCX key peers

	Year	TCX	GuarantCo	ITFC*	BSTDB	CAF	GIC	A Median
Rating/Outlook		**A1/STA**	**A1/NEG**	**A1/STA**	**A2/STA**	**Aa3/STA**	**A2/STA**	
Total assets (US$ million)	2020	1,134	378	1,039	3,447	46,846	3,271	3,268
Factor 1: Capital adequacy		**baa3**	**baa3**	**baa1**	**a3**	**a2**	**a2**	
DRA / Usable equity[1] [2] [4]	2020	246.1	309.3	65.4	243.7	219.7	69.3	228.0
Development assets credit quality score (year-end)	2020	--	b	b	baa	ba	caa	b
Non-performing assets / DRA[1]	2020	7.2	3.5	6.6	0.2	0.3	4.6	3.5
Return on average assets[4]	2020	2.1	0.6	3.2	0.6	0.5	-1.0	0.6
Net interest margin (X)[4]	2020	-1.7	1.4	0.0	1.6	0.9	0.6	1.4
Factor 2: Liquidity and funding		**a2**	**a2**	**a3**	**baa2**	**aa2**	**baa2**	
Quality of funding score (year-end)	2020	baa	baa	baa	baa	aa	ba	baa
Liquid assets / ST debt + CMLTD[3][4]	2020	21,508.4	0.0	539.9	128.9	295.6	--	440.2
Liquid assets / Total assets[4]	2020	101.0	78.1	14.5	26.6	31.4	47.4	53.9
Preliminary intrinsic financial strength (F1+F2)		**baa1**	**baa1**	**a3**	**baa1**	**aa3**	**baa1**	
Adjusted intrinsic financial strength		**baa1**	**baa1**	**a3**	**baa1**	**aa3**	**baa1**	
Factor 3: Strength of member support		**H**	**H**	**H**	**M**	**L**	**L**	
Weighted average shareholder rating (year-end)	2020	A1	aa2	ba1	ba2	b2	baa3	baa3
Callable capital / Total debt	2020	68.4	--	--	84.7	5.6	--	78.2
Callable capital (CC) of Baa3-Aaa members/Total CC[4]	2020	100.0	100.0	--	44.2	54.7	--	98.5
Scorecard-indicated outcome range (F1+F2+F3)		**A1-A3**	**A1-A3**	**Aa3-A2**	**A2-Baa1**	**Aa2-A1**	**A3-Baa2**	

* 2019 data
[1] Development-related assets
[2] Usable equity is total shareholder's equity and excludes callable capital
[3] Short-term debt and currently maturing long-term debt
[4] Ratio not used in scorecard
Source: Moody's Investors Service

DATA AND REFERENCES

Rating history

Exhibit 22
TCX[1]

	Long-Term Ratings		Short-Term		
Supranational	Senior	Subordinated	Ratings	Outlook	Date
TCX	A1	--	--	STA	Jul-21

Notes: [1] Table excludes rating affirmations. Please visit the issuer page for TCX for the full rating history.
Source: Moody's Investors Service

Annual statistics

Exhibit 23
TCX

Balance Sheet, USD Thousands	2014	2015	2016	2017	2018	2019	2020
Assets							
Cash & Equivalents	33,914	57,701	36,202	73,277	40,783	79,010	92,722
Securities	663,097	599,002	687,625	717,681	767,868	955,998	1,052,599
Net primary portfolio of derivatives	(92,310)	(154,357)	(86,139)	(39,495)	(138,460)	(103,870)	(160,892)
Derivative assets	33	3,028	1,064	0	0	0	0
Other Assets	39,362	98,044	77,793	55,878	109,884	140,083	149,987
Total Assets	**644,096**	**603,418**	**716,545**	**807,341**	**780,075**	**1,071,221**	**1,134,416**
Liabilities							
Borrowings	148,780	181,545	192,530	219,331	244,431	280,337	276,131
Derivative Liabilities	1,770	3,011	457	0	1,063	1,079	0
Other Liabilities	15,524	33,767	27,266	29,630	26,019	38,520	62,747
Total Liabilities	**166,074**	**218,323**	**220,253**	**248,961**	**271,513**	**319,936**	**338,878**
Equity							
Subscribed Capital	493,451	385,094	450,794	579,966	526,355	622,841	771,527
Less: Callable Capital	0	0	0	0	0	0	0
Less: Other Adjustments	(15,429)	0	45,497	(21,586)	(17,793)	128,444	24,011
Equals: Paid-In Capital	478,022	385,094	496,291	558,380	508,562	751,285	795,538
Total Equity	**478,022**	**385,094**	**496,291**	**558,380**	**508,562**	**751,285**	**795,538**

Source: Moody's Investors Service

Exhibit 24
TCX

Income Statement, USD Thousands	2014	2015	2016	2017	2018	2019	2020
Net income from Primary Portfolio	**(33,199)**	**(72,106)**	**83,261**	**107,840**	**(1,197)**	**193,072**	**(16,322)**
Profit on Primary Portfolio	137,692	189,053	208,173	230,001	243,618	449,940	471,265
Losses on Primary Portfolio	172,981	263,156	128,060	129,100	256,790	276,488	497,305
Net income from Other Assets	**(17,373)**	**(10,663)**	**(7,207)**	**(15,792)**	**(19,960)**	**(66,779)**	**49,506**
Net contributions from donors	(3,403)	(3,412)	(4,263)	(2,718)	(1,174)	(3,107)	(2,998)
Net income from Treasury investment	(14,021)	(10,322)	(669)	5,304	448	(4,468)	12,897
Other Income	51	3,071	(2,275)	(18,378)	(19,234)	(59,204)	39,607
Other Operating Expenses	**10,740**	**10,159**	**9,226**	**9,501**	**10,802**	**12,014**	**12,942**
Administrative, General, Staff	10,740	10,159	9,226	9,548	10,891	12,014	12,942
Other Expenses	-	-	-	(47)	(89)	-	-
Pre-Provision Income	**(61,312)**	**(92,928)**	**66,828**	**82,547**	**(31,959)**	**114,279**	**20,242**
Provision for credit losses on Primary book	-	-	1,128	(1,128)	66	-	-
Net Income (Loss)	**(61,312)**	**(92,928)**	**65,700**	**83,675**	**(32,025)**	**114,279**	**20,242**
Other Accounting Adjustments and Comprehensive Income	(13,425)	-	-	-	-	-	-
Comprehensive Income (Loss)	**(74,737)**	**(92,928)**	**65,700**	**83,675**	**(32,025)**	**114,279**	**20,242**

Source: Moody's Investors Service

Exhibit 25

TCX

Financial Ratios	2014	2015	2016	2017	2018	2019	2020
Capital Adequacy, %							
DRA / Usable Equity	270.3	287.4	225.9	272.6	309.0	256.5	246.1
Development Assets Credit Quality (Year-End)	0.0	0.0	0.0	0.0	0.0	0.0	b
Non-Performing Assets / DRA	8.3	12.7	13.1	9.4	8.6	7.2	7.2
Return On Average Assets	-9.0	-13.9	9.7	11.9	-4.3	12.2	2.1
Net Interest Margin	-5.5	-14.4	13.1	14.4	-0.2	20.7	-1.7
Liquidity, %							
Quality of Funding Score (Year-End)	--	--	--	--	--	--	baa
Liquid Assets / ST Debt + CMLTD	--	--	--	--	--	--	21,508.4
Liquid Assets / Total Debt	468.5	361.7	376.0	360.6	330.8	369.2	414.8
Liquid Assets / Total Assets	64.1	64.0	72.7	57.2	53.3	57.3	63.0
Strength of Member Support, %							
Weighted Average Shareholder Rating (Year-End)	Aaa	Aaa	Aaa	A2	A1	A2	A1
Callable Capital / Gross Debt	0.0	0.0	0.0	0.0	0.0	0.0	68.4
Callable Capital (CC) of Baa3-Aaa Members/Total CC	--	--	--	--	--	--	100.0

Source: Moody's Investors Service

Moody's related publications

» **Credit Opinion**: TCX - A1 stable: New Issuer Rating Assignment, 20 July 2021

» **Rating Methodology**: Multilateral Development Banks and Other Supranational Entities, 28 October 2020

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Related websites and information sources

» Sovereign and supranational risk group web page

» Sovereign and supranational rating list

» TCX website

Endnotes

1 Investors and shareholders can nominate third parties to use TCX's services.

2 This implies that TCX does not face convertibility risk

3 This treatment is in line with our updated methodology and the equity hybrid methodology.

4 TCX has full discretion when to implement the redemption, at any point between 1 January 2041 and 31 December 2045.

5 The Dutch government's first-loss tranche writes down to zero in a wind-down scenario. The Inter-American Development Bank (IADB, Aaa stable) also provided a subordinated loan to TCX, which matured in February this year and was fully repaid.

6 The minimum capital level is set such that TCX could wind down in an orderly fashion over a 12-month period.

7 Specifically, TCX performs a "two times Lehman" scenario and a 99.9% market stress scenario, and selects the more severe scenario as relevant for its capital requirements. The former uses double the movements in exchange and interest rates around the collapse of Lehman Brothers. The second scenario is based on available historical data going back to January 1997.

8 For example, the Interamerican Development Bank (IADB, Aaa stable) had provided a subordinated loan of $20 million which was fully repaid in 2021.

9 The ICAAP is updated at least annually but this can be done more frequently if market conditions or developments so require. It also serves as a key communication tool with all stakeholders.

10 In line with our treatment of TCX's capital instruments, we use both the Class A shares and the CSL to calculate the weighted average shareholder rating.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

REPORT NUMBER 1296719

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454