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The Currency Exchange Fund N.V.

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The Currency Exchange Fund N.V.

Credit Highlights

Issuer Credit Rating
A/Stable/A-1

Overview

Key strengths	Key risks
High likelihood of extraordinary support from 'AAA' rated main shareholders.	Very high exposure to market risk on frontier currencies.
Strong funding and liquidity.	Volatile earnings.
Robust capitalization.	Complex products, pricing, and risk management.

The Currency Exchange Fund N.V. (TCX) performed quite well in 2022 given its exposure to Commonwealth of Independent States (CIS) currencies. TCX offers currency hedging for its clients, most of whom are its shareholders. This means the fund carries significant currency risk. Despite the Russia-Ukraine military conflict, which created significant currency volatility across the CIS, TCX was able to generate $8.9 million net income in 2022. This compares very well against its $93 million annual loss during the 2015 ruble crisis. TCX performed better than expected in 2022 partly thanks to capital outflows from Russia to CIS countries supporting their currencies valuations over the last year.

However, we foresee earnings volatility in 2023 given macroeconomic uncertainties and rising interest rates. These factors will affect the valuations of the frontier currencies to which TCX is exposed. Over the medium term we also think some losses could arise from CIS currencies if capital flows progressively revert to Russia.

TCX benefits from robust capitalization and a strong funding and liquidity profile. The fund has survived various market downturns. The strength of its capitalization is demonstrated by our quantitative measure of stressed leverage--value at risk (VaR) to net asset value (NAV)--which we estimate was 39% at year-end 2022. It was improved by TCX's large gains in 2019-2022 totaling $251 million. As a result, TCX had a $654 million buffer in March 2023 before triggering its 14% minimum capital ratio. TCX also has a strong funding and liquidity profile; its balance sheet remains very liquid and its investor base is stable.

We expect the fund's shareholders to support it, if necessary. TCX offers its shareholders centralization and diversification of the currency risk associated with frontier markets. Although TCX's shareholders expect positive returns in the long term, the fund is not driven by profit maximization. Instead, it aims to grant hedges to its shareholders. In 2022, TCX adjusted its pricing in light of fluctuations in CIS currencies in line with its risk-reflective pricing principle, and continued to offer hedging services for those currencies to its shareholder-clients. As such, even if TCX were to suffer from valuation losses, we anticipate that the fund would ultimately be supported by its shareholders and possibly by the European Commission (EC). The EC increased its support of TCX via unfunded Convertible Subordinated Loans (CSLs) to €145 million in 2022 from €80 million in 2021. The EC's increased interest in TCX's missions is positive, in our view.

Outlook

The stable outlook indicates that we expect TCX to maintain leverage around the current level over the next two years. It also signifies that the fund will likely retain the support of its main shareholders and government investors. Maintaining this symbiosis with shareholders is essential to TCX's activity.

Downside scenario

We could downgrade TCX if its through-the-cycle investment performance falls short of its mandate, or its leverage increase significantly, as demonstrated by the VaR/NAV ratio significantly and sustainably exceeding 55%. We could also downgrade TCX if governments and European institutions become less supportive of its missions than we currently foresee or if the dilution in ownership increased the risk that support to the fund would not be timely.

Upside scenario

We could upgrade TCX if it continues displaying resilient performance and if its financial profile, especially leverage, durably improves.

Fund Overview and Investment Strategy

TCX is a fund incorporated in the Netherlands under an Alternative Investment Fund Managers license. It started operating in January 2008 to assist its shareholders--mostly development banks of highly rated sovereigns or multilateral financial institutions--with their public policy roles. Via its hedging activity, TCX promotes long-term local currency financing in frontier and emerging markets. TCX has 19 shareholders, the largest of which are Kreditanstalt fuer Wiederaufbau (KfW), European Bank for Reconstruction and Development (EBRD), FMO, and European Investment Bank (all rated 'AAA').

Table 1

TCX's main shareholders as of end 2022

Shareholders	Ratings	% of shares
KfW	AAA/Stable/A-1+	17.9%
European Bank for Reconstruction and Development	AAA/Stable/A-1+	17.9%
Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO)	AAA/Stable/A-1+	17.9%
European Investment Bank	AAA/Stable/A-1+	11.4%
International Finance Corp.	AAA/Stable/A-1+	9.6%
Agence Francaise de Developpement	AA/Stable/A-1+	7.6%
Other shareholders	-	17.9%

Most of the currency hedging TCX provides is in the form of non-deliverable cross-currency swaps and most of it goes to its shareholders. The fund had $3.4 billion of notional derivatives with long positions on local currencies as of March 2023, and $2 billion on a net basis (after taking into account short local currency positions). In 2022, Proparco, already a TCX shareholder, joined the fund's CSLs investors base with an initial funded CSL of €2.5 million. Proparco acts as a subsidiary of Agence Française de Développement (AFD) to fund and acquire equity stakes in the private sector to promote sustainable development.

Through the fund, shareholders diversify and mutualize currency risk on frontier and emerging market currencies, which are relatively illiquid and volatile against the dollar and benefit from scale effects in terms of knowledge, analytics, and operations. TCX provides its shareholders with hedges on currencies or tenors not provided by banks. Should banks start offering similar products, the fund would cease to quote derivatives in the corresponding currency (by virtue of its additionality principle). TCX's shareholders still support some foreign-exchange-related risk and costs via their participation in the fund, but, on average, less than they would individually were their exposures unhedged, due to risk diversification across a large number of currencies. Because of TCX's non-speculation principle, it offers only pure hedges, which are priced in relation to their risk. TCX only supports currency risk arising from its clients' lending operations and does not itself offer funding.

Risk-Adjusted Leverage

TCX benefits from a stable stressed-leverage profile. Market risk from derivatives is by far the main risk the fund is exposed to (currency risk, followed by interest-rate risk). Derivatives risk accounted for 92% of risk-weighted assets reported by the fund in March 2023. We assess this risk, including concentration risks (by region and currency), in our calculation of VaR on a one-year horizon at a 99.7% level. We derive it from the observed volatility of the fund's performance since inception, assuming a normal distribution of returns but with fatter tails.

We calculated an adjusted VaR-to-NAV of 39% as of year-end 2022, a slight improvement over the past two years thanks to moderately increasing NAV and contained market volatility of frontier currencies throughout 2022.

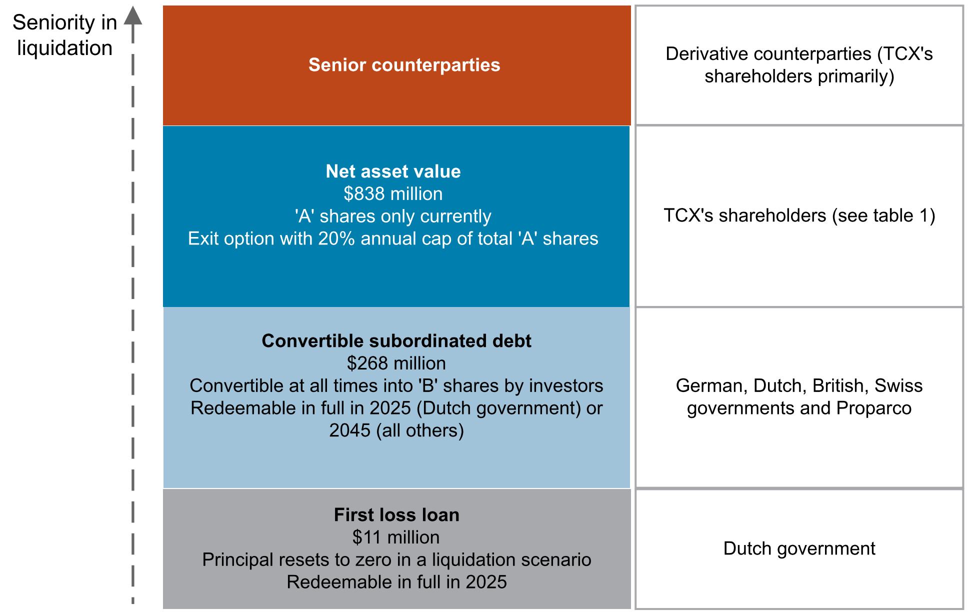
Currently we consider a portion of TCX's funded CSLs maturing in 2045 as capital instrument in our adjustments. Those funded CSLs will no longer have equity recognition at year-end 2025 because their residual maturity will fall under our 20-year threshold. That said, we consider that TCX has a robust stressed leverage profile that would remain adequate even without our adjustments on its hybrid debts.

We also qualitatively consider the unfunded CSLs that TCX gets from the EC. This €145 million off-balance sheet commitment is an unconditional first demand guarantee that would rank junior to shareholders in a liquidation scenario.

Chart 1

TCX's Senior Counterparties Are Protected In Liquidation By Equity And Various Types Of Debt Instruments

TCX's simplified capital structure as of end December 2022



*Furthermore TCX's creditors benefit from €145 million unfunded CSLs, maturing in 2035, granted by the European Commission. Source: S&P Global Ratings.

VaR-to-NAV adequately captures TCX's exposure to market risk. The risk position assessment refines our purely quantitative stressed leverage assessment. We believe our stressed leverage metric adequately captures the fund's exposure to market risk, hence our neutral assessment of the risk position.

In particular, we see no significant incremental risk from TCX's strategy. In our view, the fund has stuck to its mission, which is to support market creation by providing hedging on currencies and maturities not provided by banks; market deepening, by providing support to bond issuances in local currency by some of its shareholders; and knowledge sharing.

We also take into consideration TCX's own market-risk stress tests, which uses 24 years of monthly data and the current portfolio mix to assess the worst one, three, six and 12-month performance TCX would have experienced historically (diversified stress test) or would experience if all the currencies in the portfolio simultaneously recorded their worst historical performance (undiversified stress test).

Table 2

TCX's financial statements

Mil. $

			--Year ended Dec. 31--											
Statement of Financial Position	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**
Assets	1,549.6	1,414.1	1,458.3	1,319.9	988.5	909.6	861.9	803.2	765.9	781.8	756.3	711.1	670.4	565.1	451.8
Cash and cash equivalents	46.8	128.1	92.7	79.0	40.8	73.3	36.2	57.7	33.9	31.0	40.9	29.6	24.3	51.5	25.7
Securities	1,113.5	1,014.9	1,052.6	956.0	767.9	717.7	687.6	599.0	663.1	714.0	669.5	639.7	614.7	500.9	391.9
Cash collateral posted by TCX	197.8	116.0	139.6	129.6	99.2	43.6	67.2	86.7	39.3	15.6	20.7	24.2	12.1	0.0	31.9
Swap portfolio and other assets	191.4	155.2	173.4	155.2	80.7	75.0	70.8	59.8	29.6	21.2	25.2	17.6	19.3	12.7	2.3
Liabilities	1,549.6	1,414.1	1,458.3	1,319.9	988.5	909.6	861.9	803.2	765.9	781.8	756.3	711.1	670.4	565.1	451.8
Cash collateral received	58.1	34.7	41.7	25.0	18.2	18.5	20.0	21.5	5.4	7.7	6.5	0.0	2.9	7.5	0.0
Swap portfolio	353.9	248.6	323.9	250.2	209.5	102.2	145.8	202.7	123.8	47.8	37.7	48.7	27.6	16.8	68.8
Other liabilities	20.8	21.1	21.1	13.0	7.8	11.2	7.2	12.3	10.0	9.4	9.9	8.9	4.4	3.5	1.2
Capital	1,116.8	1,109.7	1,071.7	1,031.6	753.0	777.7	688.8	566.6	626.8	717.0	702.4	653.5	635.6	537.3	381.8
Redeemable capital	838.2	829.2	795.5	751.3	508.6	558.4	496.3	385.1	478.0	568.2	553.6	524.7	506.8	426.2	345.6
Subordinated convertible debt	267.7	269.5	259.9	257.7	216.6	188.3	161.5	161.5	128.8	128.8	128.8	128.8	128.8	111.1	36.2
First loss loan	10.9	10.9	10.9	10.9	10.9	10.9	10.9								
Subordinated non-covertible debt	0.0	0.0	5.3	11.7	17.0	20.2	20.1	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0
				--Year ended Dec. 31--											
Statement of Comprehensive Income	**2022***	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**
Investment result	30.1	128.4	37.8	134.1	-14.0	91.4	79.9	-75.9	-43.6	38.4	67.4	11.2	33.1	82.6	-55.3
Other result	-6.3	-6.3	-4.6	-7.8	-7.2	1.8	-5.0	-6.9	-6.9	0.5	0.6	-3.3	-2.6	-1.1	-2.5
Operational expenses	-14.8	-14.7	-12.9	-12.0	-10.9	-9.5	-9.2	-10.2	-10.7	-10.6	-10.7	-9.0	-7.7	-8.4	-7.2
Net operating income	8.9	107.4	20.2	114.3	-32.0	83.7	65.7	-92.9	-61.2	28.3	57.3	-1.1	22.8	73.0	-65.0

*Exchange-rate translation results subject to final allocation. Source: S&P Global Ratings, TCX.

Funding And Liquidity

Strong funding profile due to stable equity and debt investors. TCX has a strong funding profile in our view. Equity funding comes through fund users, whose incentive to withdraw funds is therefore extremely low. The shareholder base has been stable since 2020 when the African Development Bank (AfDB), which held 4% of the fund's shareholder equity, had to exit TCX's capital for policy reasons. Withdrawals are also subject to a 20% annual cap and are possible only if they do not push TCX's capital ratio below its minimum internal requirement (18% of risk-weighted assets, as computed by the fund). TCX has 19 equity investors, which are mostly highly rated multilateral lending institutions and development banks. None of the largest investors has left the fund since its inception. The three largest investors (KfW, EBRD, and FMO) hold 54% of TCX's shares. Debt funding is mainly provided by the Dutch, German, U.K., and Swiss governments, and with the recent addition of Proparco (on behalf of the French government) in the form of CSL. We view this funding base as very stable. Of the debt, $71 million matures in 2025 and $197 million in 2045.

We also qualitatively consider a default of TCX could only be generated by very heavy losses from frontier currencies valuations that TCX's shareholders would have directly born on their P&L without the interposition of TCX, while not benefiting from the same level of diversification. Therefore, as long as TCX's shareholders have an interest in the services provided by the funds, they also have strong incentive to support TCX's funding if needed.

TCX's liquidity is strong, thanks to a very liquid balance sheet. Our liquidity ratio (liquidity reserves/[NAV + long-term debt) amounted to 83% at end-2022, which we view as very strong. By our calculation, the fund has maintained this ratio above 82% through its life. Liquidity is one of the fund's structural strengths and we don't expect this to change. TCX's balance sheet essentially comprises highly rated securities (almost all in the 'AA' or 'AAA' categories) and cash.

Jurisdictional Risk

Our assessment of jurisdictional risk is neutral for the rating, reflecting our view of payment culture, rule of law, governance, and transparency in the Netherlands.

Other Key Credit Considerations

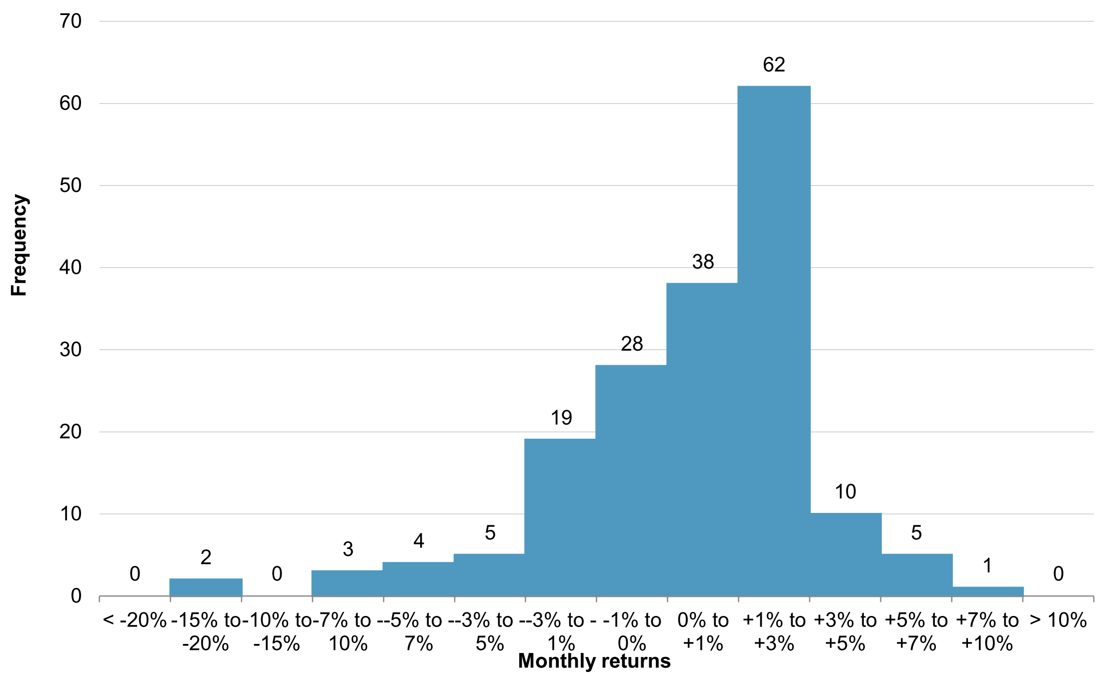
TCX's investment performance is in line with its mandate. Its earnings are structurally highly volatile. They are driven by changes in the mark-to-market value of the derivatives portfolio, which depends on the exchange rate between the U.S. dollar and the relevant frontier and emerging market currencies, as well as interest rates in these markets.

The distribution of monthly returns since inception is positively oriented (see chart 2) demonstrating TCX's ability to generate positive returns more often than not, to compensate for occasional negative performance. Although the frequency of significant negative returns (nine months in which profit on NAV was below -5%) is higher than the frequency of large positive return (six months in which profit on NAV was above 5%), 66% of monthly returns have been positive and the fund has had a 33 basis point average monthly return since June 2008. Accordingly, we consider that TCX's profitability is adequate, given its long-term target.

Chart 2

Good times prepare for bad times

Distribution of monthly returns is positively oriented



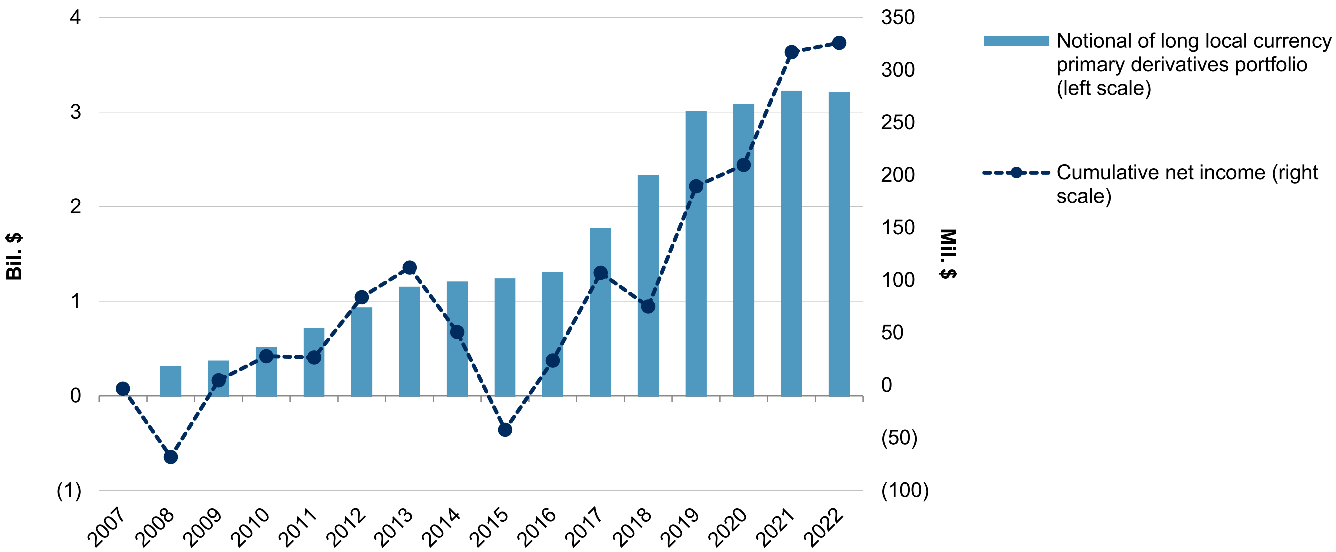
Source: S&P Global Ratings.

We would not consider a negative NAV performance for several consecutive months to be an issue from a credit perspective, so long as the fund's business model remains sustainable in terms of through-the-cycle profit and loss, risk management, and links with shareholders. In particular, we do not view the confidence of TCX's shareholders as sensitive to short-term negative performance.

In our view, governance partially explains TCX's overall good performance (see chart 3). Valuation levels are set independently by a pricing committee, which consists of five voting members who have expertise in derivatives pricing in emerging markets, and none of whom is employed by the fund. TCX has two representatives on this committee, but no voting rights. This governance favors the fair valuation of derivative contracts.

Chart 3

TCX has a track record of sustainable growth
Cumulative profit supports TCX growth and solvency



Source: S&P Global Ratings, TCX.

TCX uses a Basel-inspired capital framework. The fund has defined, under its own statutes, a Basel-inspired capital framework. Risk-weighted assets, as calculated by TCX, arise in credit, operational, and market risks, the latter of which are by far the main risk drivers.

The fund defines its capital requirement as the sum of the capital required to cover the liquidation trigger event (14% capital ratio) and a Pillar II requirement. The method by which the Pillar II requirement is determined was amended in 2019, such that the total capital ratio covers the higher of a "two times Lehman" scenario and a "99.9% market stress scenario," floored at 18%, which is currently the binding constraint. The fund's capital ratio amounted to 28% as of March 2023, which provides a $464 million buffer against the 18% threshold.

Should total capital fall below the own minimum capital requirement (18%), TCX would be required to take action to reduce the chances of sliding toward the 14% liquidation trigger event. This trigger provides some protection against the fund reaching the liquidation trigger event, although it might not cushion against the effect of abrupt and lasting market movements.

Shareholders have also agreed to additional restrictions to redemption, including a clause preventing capital redemption if it would lead to the total capital ratio dropping to less than 18%. This provides an additional protection against reaching the liquidation trigger event.

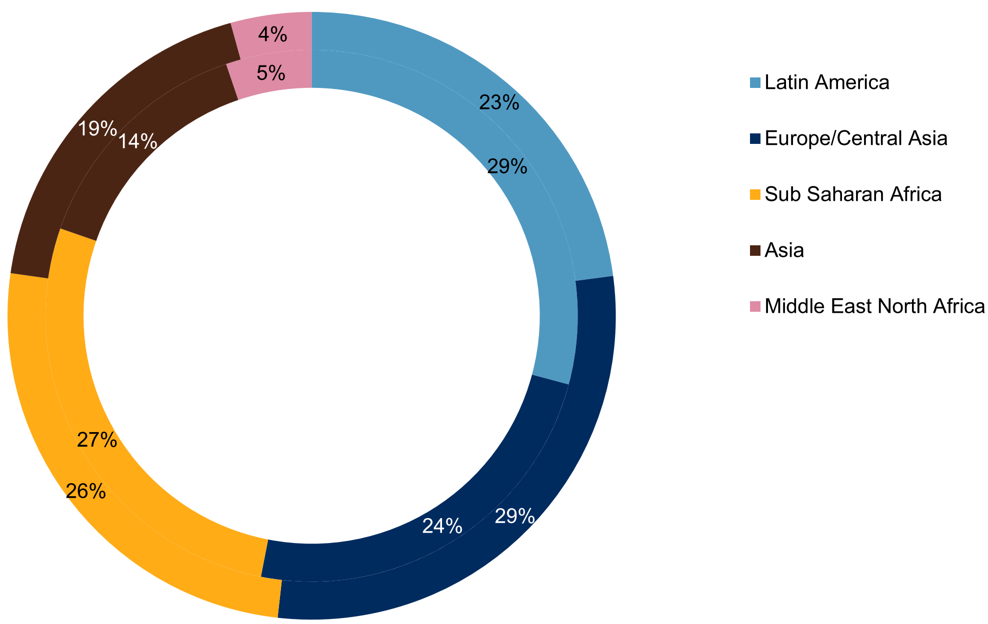
Should the capital ratio fall below the liquidation trigger event, we understand that, as per the fund's statutes, all shareholders would have to discuss a resolution at short notice, agree to provide additional capital, wait for a recovery, or liquidate the fund within 18 months by unwinding its positions. Swaps with all counterparties contain clauses that allow TCX and the swap counterparties to unwind existing swap positions after the liquidation event in an orderly manner.

TCX manages market risk via concentration limits (by currency and regions) and the use of offsetting hedges to remain within those limits.

The fund has set concentration limits by currency (the net notional exposure cannot exceed 25% of total capital or 10% of the maximum potential net portfolio, assuming a constant mix and a capital ratio of 18%) and region (limit of 30%-50% of the maximum potential net portfolio). Over the past five years, most of TCX's growth has been based on currencies in Europe/Central Asia (see chart 4), particularly on Uzbekistan, Serbia, Georgia, and Tajikistan currencies.

Chart 4

TCX's growth in recent years was driven by currencies in Europe/Central Asia
Evolution of the geographical breakdown of TCX's net currency exposures between 2016 (Inner circle) and 2022 (Outer circle)



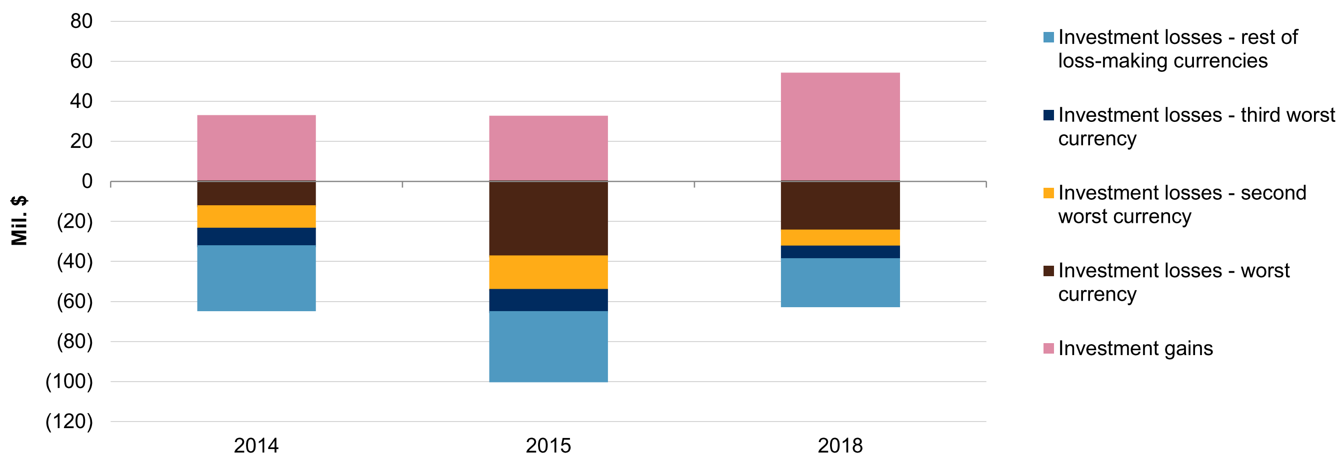
Source: S&P Global Ratings.

Despite these limits and the fund's relative granularity, with exposure to 55 currencies at end-2022, it only takes a few currencies to produce a negative performance. For instance, in the most recent loss-making years (2014, 2015, and 2018), three currencies accounted for more than half of TCX's investment losses (see chart 5). Although we cannot predict how frontier currencies will evolve in 2023, the potential for heavy losses on those currencies could be mitigated by the diversification effect. Indeed, the fund's negative performance in 2014, 2015, and 2018 was partially mitigated by gains on certain currencies, highlighting the diversification benefit even in times of stress.

Chart 5

Diversification usually mitigates total losses when emerging markets are under stress

Breakdown of investment performance during recent loss-making years

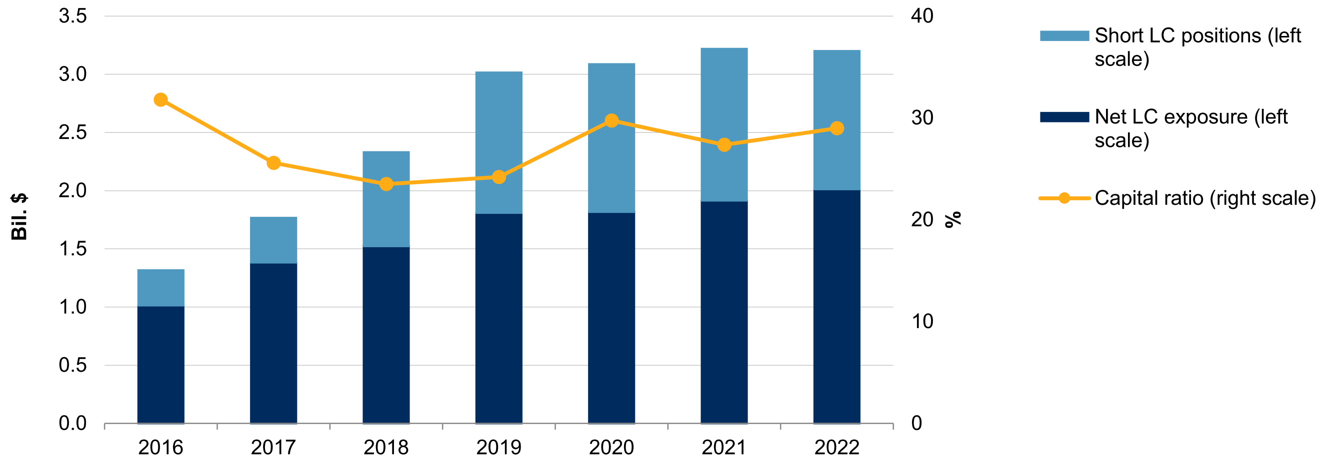


Source: S&P Global Ratings, TCX.

Offsetting hedges play an important role in maintaining the composition of the portfolio within set limits, by currency and by region. TCX supports the issuance of local currency-linked bonds and notes by some of its shareholders, which the fund then swaps to U.S. dollars. This provides it with short positions on some of the local currencies on which it has a long position via its primary derivatives portfolio, reducing its net exposure to some of the local currencies and regions, while contributing to the development of local currency bond markets. This risk management technique has become more important since 2018 and is used to support TCX's strong growth and optimize its capital usage. Growth was later slowed by the pandemic and then by the Russia-Ukraine military conflict (see chart 6). At the end of 2022, short positions on currencies accounted for 37% of TCX's long positions.

Chart 6

TCX growth was reduced by covid-19 and Russia-Ukraine military conflict...
… Capital remained resilient thanks to short LC positions



Source: S&P Global Ratings.

Level 3 assets expose TCX to model risk. The derivatives the fund provides qualify as level 3 assets whose valuation technique uses inputs not observable in the market. This exposes TCX to model risk.

We note the fund's very good transparency, with frequent (monthly) and comprehensive reporting.

The nonprofit maximization profile weighs on the rating. TCX's reward-to-risk profile is lower than for a typical fund. This is not surprising because profit maximization is not in the fund's mandate, and its owners are typically not-for-profit entities focused on maximizing their development impact. Since 2008, TCX has nonetheless generated 45% of its capital growth from retained earnings, 33% from debt issuance (mostly through convertible subordinated loans), and 22% from shareholder equity increase.

Assessment As A Government-Related Entity (GRE)

Our view of a high likelihood of extraordinary support is based on our assessment of TCX's important role for, and its very strong link to, its dominant owners and their related governments. We view the political context for the development of TCX's activities as positive in the long run.

We assess TCX's role as important, because it operates as an independent entity that contributes to the provision of an important public policy mandate by its shareholders and their related governments. TCX, via its shareholders, supports Official Development Assistance (ODA) and Sustainable Energy for All (SE4ALL) programs. The Netherlands, Germany, France, Switzerland, and the U.K. are all members of the OECD Development Assistance Committee, an international forum that promotes development cooperation and other policies to contribute to sustainable development in developing countries.

Our assessment of TCX's important role for its dominant owners indicates that the fund's activities are not focused on the owners' domestic markets, and that these activities do not have systemic relevance. TCX's role for its owners could decrease if governments adopted a less supportive stance toward OECD initiatives. In such a scenario, we expect that owners would have the fund run down its operations in an orderly manner and provide support, if necessary, until it finishes its operations.

We assess TCX's link to its dominant owners as very strong, because they created the fund, provided it with capital as an independent entity, and maintain a strong influence on its strategic and business plans.

Although TCX's shareholders are entitled to start claiming capital redemptions gradually, we expect no major claims for capital redemptions that would threaten the fund's financial strength. Furthermore, if shareholders wish to exercise this option, withdrawal rights are capped to 20% of total capital per year.

Ratings Score Snapshot

Issuer credit rating: A/Stable/A-1

Risk-adjusted leverage: Adequate

- Stressed leverage: Adequate
- Risk position: Adequate

Funding and liquidity: Strong

- Funding: Strong
- Liquidity: Strong

Preliminary anchor: a-

Jurisdictional risk: Neutral

Anchor: a-

Modifiers

- Track record and investment performance: Neutral
- Risk management: Neutral
- Transparency and complexity: Negative (-1)
- Comparable rating analysis: Unfavorable (-1)

Stand-alone credit profile: bbb

- Likelihood of extraordinary government support: High (+3 notches)

Related Criteria

- General Criteria: Hybrid Capital: Methodology And Assumptions , March 2, 2022
- Criteria | Financial Institutions | Other: Alternative Investment Funds Methodology , Dec. 9, 2021
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings , Oct. 10, 2021
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments , April 1, 2019
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings , April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions , March 25, 2015
- General Criteria: Principles Of Credit Ratings , Feb. 16, 2011

Ratings Detail (As Of May 16, 2023)*	
Currency Exchange Fund N.V. (The)	
Issuer Credit Rating	A/Stable/A-1
Issuer Credit Ratings History	
26-Jul-2018	A/Stable/A-1
16-Jan-2017	A-/Stable/A-2
23-Feb-2015	A-/Negative/A-2
Sovereign Rating	
Netherlands	AAA/Stable/A-1+

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.