The Currency Exchange Fund N.V.

July 7, 2026

Credit Highlights

Overview

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

Primary Contact

Leo Epstein
Paris
33-6-12-78-59-91
leo.epstein
@spglobal.com

Analytical Manager

Emanuele Tamburrano
London
44-20-7176-3825
emanuele.tamburrano
@spglobal.com

Secondary Contact

Shubham Verma
London
44-20-7176-0858
Shubham.Verma
@spglobal.com

The Currency Exchange Fund N.V. (TCX) performed exceptionally well in 2025. TCX offers currency hedging for its clients, most of whom are its shareholders. This means the fund carries significant currency risk. Despite the economic slowdown and ongoing military conflicts, which could have significantly affected international trade flows and reduced international public development plans, TCX generated net income of $305 million in 2025. This was its highest ever operating income for the third consecutive year. Earnings were mainly driven by increased trades in currencies across most sectors.

We expect its hedging production and earnings will continue to increase in 2026. Foreign exchange (FX) risk remains high, given geopolitical and economic risks, and this will continue to affect the valuations of the frontier currencies to which TCX is exposed. However, this also makes its role as a frontier currency-risk hedging provider ever more relevant. Over the first five months of 2026, primary hedging production and the fund's net profit remained very strong, with year-to-date net income of $117.4 million.

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 40.31% at year-end 2025, mostly thanks to overall moderate monthly earnings volatility. As a result, TCX had a $1.1 billion buffer in May 2026 before triggering its 14% minimum capital ratio before liquidation. TCX also has a strong funding and liquidity profile thanks to its stable investor base and very liquid assets.

We expect the fund's shareholders will support TCX 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. We view the Dutch government's commitment to TCX as long term, which provides a three-notch support for our issuer credit rating on the company. Consequently, if TCX were to suffer 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, and in early 2025 approved a further €246 million in additional callable capital under the European Fund for Sustainable Development Plus (EFSD+) program (including €150 million already activated and €96 million to be activated).

Outlook

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

Downside scenario

We could downgrade TCX if its through-the-cycle investment performance falls short of its mandate, or its leverage significantly increases such that the VaR-to-NAV ratio significantly and sustainably exceeds 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 increases the risk that support for the fund would not be timely.

Upside scenario

We could upgrade TCX if it continues displaying resilient performance and its financial profile, especially leverage, durably improves. This could come, for example, from the public entities in TCX's capital base having increased skin in the game.

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 20 shareholders, the largest of which are Kreditanstalt für Wiederaufbau (KfW), the European Bank for Reconstruction and Development (EBRD), Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO), and the European Investment Bank (all rated 'AAA').

TCX's main shareholders as of Dec. 31, 2025

Shareholders	Ratings	% of shares	Number of shares
KfW	AAA/Stable/A-1+	17.6%	188
European Bank for Reconstruction and Development	AAA/Stable/A-1+	17.6%	188
Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO)	AAA/Stable/A-1+	17.6%	188
European Investment Bank	AAA/Stable/A-1+	11.2%	120
International Finance Corp.	AAA/Stable/A-1+	11.0%	118

TCX's main shareholders as of Dec. 31, 2025

Shareholders	Ratings	% of shares	Number of shares
Agence Francaise de Developpement	A+/Stable/A-1+	7.5%	80
Other shareholders	-	17.6%	188

Source: S&P Global Ratings, TCX.

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 $6.8 billion of notional derivatives with long positions on local currencies as of May 2026, and $3.6 billion on a net basis (after considering short local-currency positions).

Through the fund, shareholders diversify and mutualize currency risk on frontier and emerging market currencies, which are relatively illiquid and volatile against the U.S. 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 FX-related risk and costs via their participation in the fund, but, on average, less than they would individually should their exposures be unhedged, due to risk diversification across a large number of currencies (61 currencies at the end of 2025). 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 resilient stressed-leverage profile. Market risk from derivatives is by far the main risk the fund is exposed to, comprising primarily currency risk, as well as interest rate risk. Market risk accounted for 93% of risk-weighted assets (RWAs) reported by the fund in December 2025. 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 normal distributions of returns but with fatter tails.

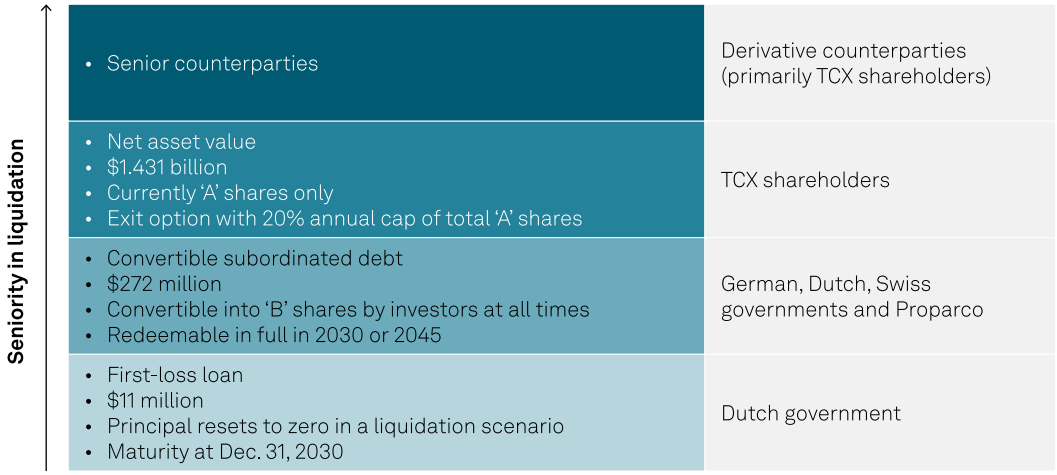
We calculated adjusted VaR-to-NAV of 40.31% as of year-end 2025, which, despite the low monthly income volatility throughout 2025, is a slight increase on past years. This year, the residual maturity of TCX’s funded CSLs maturing in 2045 fell below our 20-year threshold, which is why we did not take them into account as capital instruments in our adjustments; they no longer have equity recognition at year-end 2025. That said, this change is inconsequential for our assessment of TCX’s overall risk-adjusted leverage, and we consider that TCX has a robust stressed leverage profile that has been supported by limited volatility over the last few years, as well as by ongoing long-term support from shareholders and hybrid debt holders.

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. We expect the stock of unfunded CSLs will increase over the coming years thanks to gradual unlocking of the €246 million EFSD+ capacity pledged by the EC in early 2025 (of which €150 million already activated).

Chart 1

TCX counterparties are protected in liquidation by equity and various types of debt instruments

TCX's simplified capital structure as of Dec. 31, 2025



TCX's creditors also benefit from unfunded CSLs granted by the European Commission for €145 million maturing in 2035 and €150 million maturing in 2047. Source: S&P Global Ratings.
© 2026 Standard & Poor's Financial Services LLC.

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.

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 use 29 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). We note that TCX's capital buffer above its liquidity trigger event represented about 3x the 12-month diversified stress test at year-end 2025.

TCX's financial statements

Mil. $

Statement of financial position	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Assets	2,249.3	1,818.2	1,682.1	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	89.2	252.2	46.5	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	1639.0	1,189.60	1,261.0	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	175.0	140.4	176.8	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

TCX's financial statements

Mil. $

Statement of financial position	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Swap portfolio and other assets	346.1	236.1	197.8	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	2,249.3	1,818.2	1,682.1	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	156.8	73.9	64.2	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	352.1	311.4	328.0	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	26.1	26.7	20.2	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	1714.2	1,406.30	1,269.7	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	1431.4	1,126.40	989.0	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	271.9	269	269.7	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	10.9	10.9	10.9								
Subordinated non-covertible debt	0.0	0.0	0.0	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
Statement of comprehensive income	**2025**	**2024**	**2023**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**
Investment result	331.7	162	158.5	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	-5.8	-6.5	-6.4	-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	-20.9	-18.1	-16.0	-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	305.0	137.4	136.1	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

Year ended Dec. 31. Sources: S&P Global Ratings, TCX.

Funding and Liquidity

TCX has a strong funding profile due to stable equity and debt investors. Equity funding comes through fund users, whose incentive to withdraw funds is consequently extremely low. 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 RWAs, as computed by the fund). TCX has 20 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 four largest investors (KfW, EBRD, FMO, and EIB) hold 64% of TCX's shares. Debt funding is mainly provided by the Dutch, German, U.K., and Swiss governments, and recently Proparco (on behalf of the French government) in the form of CSLs. We view this funding base as very stable. Of the debt, $71 million matures in 2030 and $200 million in 2045.

We also qualitatively consider that a default of TCX could only be generated by very heavy losses from frontier currency valuations that TCX's shareholders would have directly borne 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 fund, 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 84.2% at end-2025, which we view as very strong. According to our calculation, the fund has maintained this ratio consistently above 81% through its life. We assess TCX's overall liquidity profile as strong thanks to the large portfolio of highly rated liquid securities, which we consider a necessity given potential frontier currency market fluctuations. We therefore view liquidity as one of the fund's structural strengths, and we do not expect this to change.

Jurisdictional Risk

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

Other Key Credit Considerations

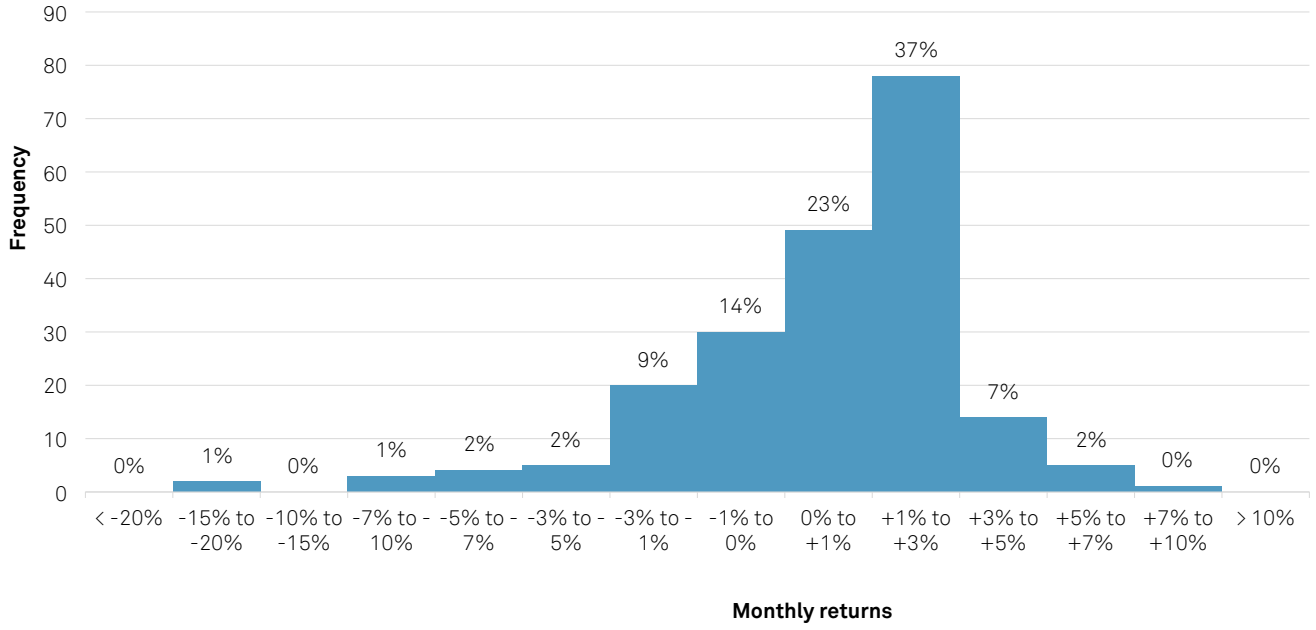
TCX's investment performance is in line with its mandate. Its earnings are structurally highly volatile. They are driven by changes in the mark-to-market value of the derivatives portfolio, which depend on the exchange rate between the U.S. dollar and the relevant frontier and emerging market currencies, 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%), 70% of monthly returns have been positive and the fund has had a 51 basis point average monthly return since June 2008. Accordingly, we consider that TCX's profitability is adequate, given its long-term target.

Chart 2

TCX's returns in good times offset those in bad times

Distribution of monthly returns is positively oriented



Source: S&P Global Ratings.
Copyright © 2026 by Standard & Poor's Financial Services LLC. All rights reserved.

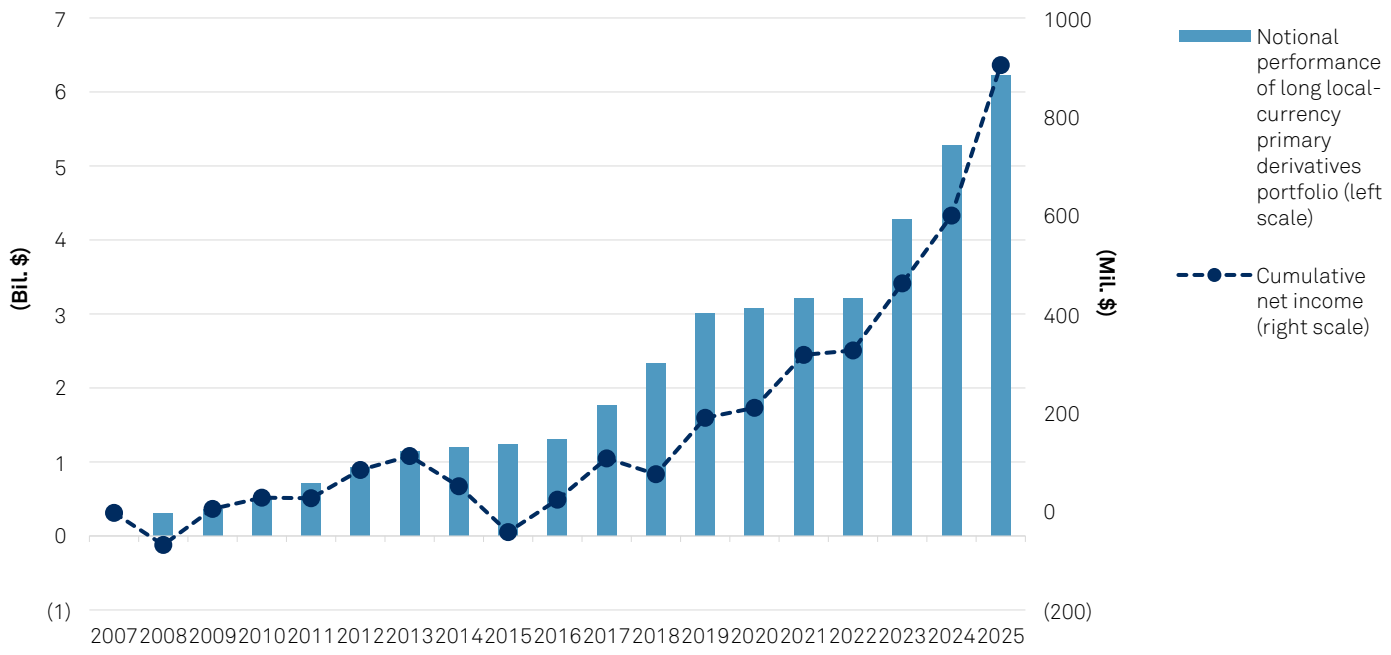
We would not consider a negative NAV performance for several consecutive months to be an issue from a credit perspective, so long as the fund's business model remains sustainable in terms of through-the-cycle profit and loss, risk management, and links with shareholders. In particular, we do not regard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

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

Chart 3

TCX has a track record of sustainable growth

Cumulative profit supports TCX's growth and solvency



Source: S&P Global Ratings, TCX.
Copyright © 2026 by Standard & Poor's Financial Services LLC. All rights reserved.

TCX uses a Basel-inspired capital framework. RWAs, 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 a liquidation trigger event (14% capital ratio) and a Pillar II requirement, determined to cover the highest 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 27.5% as of May 2026, which provides a $754 million buffer against the 18% operational buffer 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 a 14% liquidation trigger event. This trigger provides some protection against the fund reaching the liquidation trigger event, although it might not protect 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 additional protection against reaching a liquidation trigger event.

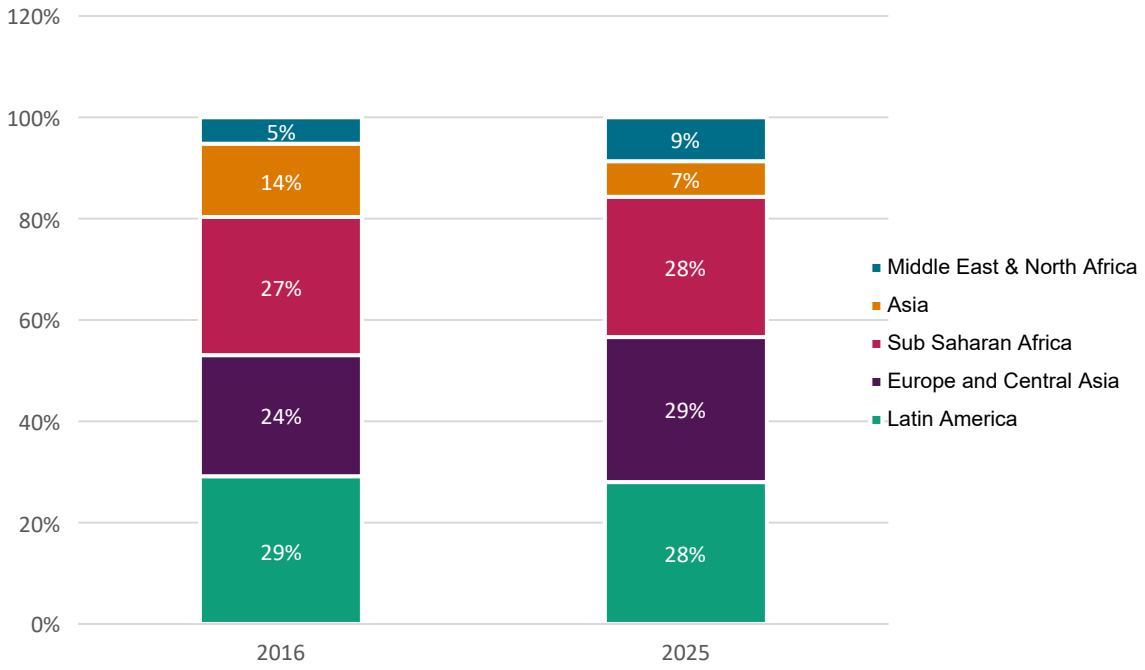
Should the capital ratio fall below the liquidation trigger event level, we understand that, as per the fund's statutes, all shareholders would have to discuss a resolution at short notice, agree to provide additional capital, wait for a recovery, or liquidate the fund within 18 months by unwinding its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

TCX manages market risk via concentration limits (by currency and regions) and 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 those of Uzbekistan, Kazakhstan, India, and Azerbaijan.

Chart 4

TCX's growth is driven by Europe and Central Asia

Geographical breakdown of TCX's net currency exposures



Source: S&P Global Ratings.
Copyright © 2026 by Standard & Poor's Financial Services LLC. All rights reserved.

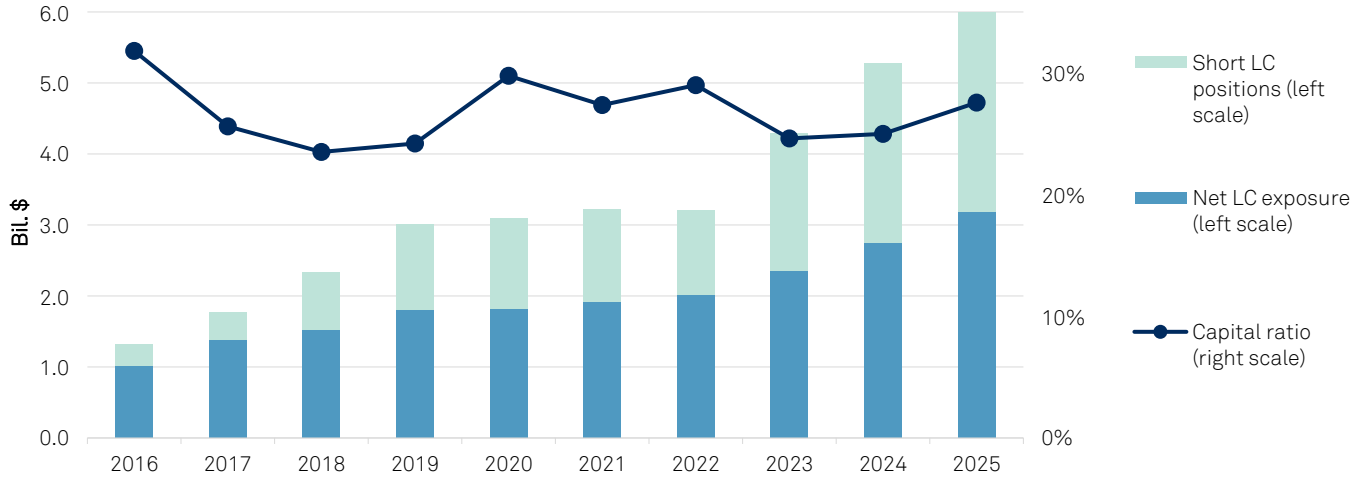
Despite these limits and the fund's relative granularity, with exposure to 61 currencies at end-2025, it only takes a few currencies to produce a negative performance. For instance, in the most recent loss-making years (2014, 2015, and 2018), three currencies accounted for more than half of TCX's investment losses. Although it is difficult to predict how frontier currencies will evolve in 2026 given current geopolitical tensions around the globe, the potential for heavy losses on those currencies could be mitigated by the diversification effect. Indeed, the fund's negative performances in 2014, 2015, and 2018 were partially mitigated by gains on certain currencies, highlighting the diversification benefit even in times of stress.

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 (see chart 5). We expect TCX to continue building on the strong momentum of the first months of 2026, which could surpass 2025 production.

Chart 5

TCX displays dynamic growth

Capital resilience is supported by short local-currency positions



Source: S&P Global Ratings.
Copyright © 2026 by Standard & Poor's Financial Services LLC. All rights reserved.

Level 3 assets expose TCX to model risk. This is because the derivatives provided by the fund qualify as level 3 assets whose valuation technique uses inputs not observable in the market. On the other hand, we recognize 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 is historically lower than for other funds for which S&P Global Ratings has collected data (as measured by the Sharpe ratio). This is logical, given TCX's mission is not to maximize its profitability but to serve its shareholder clients to diversify their risk and to contribute to frontier currencies markets development. Nonetheless, as TCX continues to grow and its profitability to increase, its annualized return rates are getting closer to other rated AIFs.

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 very strong link to, its mains shareholders and their related governments. We view the political context for the development of TCX's activities as positive overall.

We assess TCX's role as important, because it operates as an independent entity that contributes to an important public policy mandate of its shareholders and their related governments. TCX, via its shareholders, supports the 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 main shareholders also balances the fact that the fund's activities are not focused on the shareholders' domestic markets and that these activities do not have systemic relevance for them. Consequently, TCX's role for its shareholders could potentially decrease if governments adopted a less supportive stance toward OECD initiatives and if public policy mandates to lend and invest in emerging and frontier countries were watered down and not replaced with private investors. In such a scenario, we expect the shareholders 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 main shareholders 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 gradually claiming capital redemptions, 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 at 20% of share capital per year.

Table 3

The Currency Exchange Fund--Rating score snapshot

Issuer credit rating	**A-/Stable/A-1**
Stand-alone credit profile	bbb
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)
Likelihood of extraordinary government support	High (+3 notches)

Related Criteria

- General Criteria: Hybrid Capital: Methodology And Assumptions, Oct. 13, 2025
- Criteria | Financial Institutions | Other: Alternative Investment Funds Methodology, Aug. 30, 2024
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- 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 July 07, 2026)*	
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.

Copyright © 2026 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Some of the Content may have been created with the assistance of an artificial intelligence (AI) tool. Published Content created or processed using AI is composed, reviewed, edited, and approved by S&P personnel.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.spglobal.com/ratings (free of charge), and www.ratingsdirect.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.spglobal.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.