

CREDIT OPINION

14 May 2024

Update

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RATINGS

Frontier Clearing Corporation B.V.

Domicile	Amsterdam, Netherlands
Long Term Rating	Baa1
Type	Insurance Financial Strength - Fgn Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Frontier Clearing Corporation B.V.

Update to credit analysis

Summary

Frontier Clearing Corporation B.V.'s (Frontclear) Baa1 Insurance Financial Strength (IFS) rating, with a stable outlook, reflects its unique market position as a guarantor of inter-bank trades in emerging and frontier markets, strong capital adequacy paired with its strong risk management track record, very high quality asset base, as well as backing by large development finance institutions.

These strengths are offset by Frontclear's modest size and only moderate growth recently as well as limited diversification, modest profitability, and exposure to banks in non investment grade countries, which results in elevated risk.

Credit strengths

- » Unique market position and product offering with the potential to make a significant impact on the development of financial markets in frontier economies
- » Strong track record of selecting and managing risks, including in stressed environments
- » Strong capitalization with low guaranteed portfolio leverage and low investment risk
- » Financial support from large development finance institutions, although no explicit support beyond committed capital

Credit challenges

- » Modest size and moderate growth, profitability still hampered by start up costs
- » Limited risk diversification in guaranteed portfolio, and exposures to banks in non-investment grade countries, with elevated wrong-way risk
- » Relatively small team and reliance on key members of management
- » No formal regulatory oversight with reliance on self-regulation through corporate governance structures

Rating outlook

The outlook for Frontclear is stable, reflecting our expectation that Frontclear will maintain disciplined underwriting and risk controls. The stable outlook also factors in our expectation that Frontclear will be able to report broadly break-even underlying results.

Factors that could lead to an upgrade

Frontclear's rating could be upgraded in case of:

- » Continued demonstration of ability to fulfil development mandate, as indicated by further growth and high levels of diversification in its portfolio,
- » Success in attracting additional funding by development finance institutions and similar investors,
- » Maintenance of very strong capital adequacy and improving underlying profitability, and
- » Continuously strong track record in terms of managing risk.

Factors that could lead to a downgrade

Frontclear's rating could be downgraded in case of:

- » Failure to fulfil its development mandate, which could be indicated by slow growth in the guaranteed portfolio,
- » Significant increase in capital and liquidity risk taking relative to funding base, including from a weakening in portfolio quality, and/or
- » Capital erosion, for example due to portfolio losses

Profile

Frontclear is a financial markets development company focused on catalyzing more stable and inclusive financial markets in emerging and developing countries. Its primary operations include providing guarantees on swap and repo transactions, and providing capacity building technical assistance services.

Frontclear is the active company issuing guarantees and is a limited liability company incorporated in the Netherlands and is a wholly owned subsidiary of Frontclear Management B.V. ("FM"). Frontclear is funded through the issuance of profit participating notes ("PPNs") to the different Frontier Clearing Funds (collectively "FCFs"), and ultimately to external development-focused investors.

Detailed credit considerations

Insurance financial strength rating

The key factors currently influencing the rating and outlook are:

MARKET ENVIRONMENT AND PRODUCT STRATEGY: GROWING PARTICIPANT IN NASCENT INTER-BANK MARKETS, BUT ELEVATED PRODUCT RISK PROFILE

Inter-bank repo markets are an essential means of generating liquidity in financial markets, with repo flows estimated to amount to up to 30% of outstanding government bonds in some developed markets. Emerging and frontier economies, in contrast, suffer from non-existent or severely underdeveloped inter-bank and repo markets. For example, only two African countries, South Africa and Nigeria, have well-functioning inter-bank swap and repo markets. Frontclear fulfills a fairly unique position in its ability to provide counterparty guarantees along with technical assistance necessary to stimulate and develop inter-bank markets in a number of emerging and frontier economies.

While currently still relatively small in scale (\$3.8 million revenues in 2022 and \$89.3 million of total assets as at YE2022), Frontclear's technical expertise along with increasing prominence and thought-leadership in its chosen markets, and its association with large development finance institutions, strengthens its market position as a facilitator of inter-bank swaps and repos in frontier and emerging markets. Frontclear is well positioned to partner with international development finance institutions to contribute to the development of financial markets in these countries. We consider Frontclear's ability to deliver development impact to be the overriding determinant of its market position and the continued support from its institutional partners.

The launch of Tradeclear platform in Uganda in June 2022, a solution enabling Frontclear to guarantee bilateral transactions between more than half of the banking system in the country, was a key milestone for the company, but volumes on the platform are still

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subject to market inertia. Frontclear is in the process of relaunching its improved offering which, if successful, could be a blueprint for other markets, including beyond Africa.

Frontclear is taking additional steps to strengthen its revenue base. Very close to its core business of providing guarantees, it aims to directly participate in repos as a counterpart, offering liquidity to banks. In addition, Frontclear intends to expand into trade finance arrangements with banks in frontier and emerging markets.

We consider Frontclear's product strategy to present an elevated level of risk to its credit profile. While the underlying products, currently primarily plain vanilla swaps and repos, are not complex, the regulatory and legal environments in which Frontclear operates tend to be underdeveloped and susceptible to event-risk, and therefore inherently higher risk.

PORTFOLIO CHARACTERISTICS AND CAPITAL ADEQUACY: LOW OPERATING LEVERAGE BUT CONSTRAINED BY LIMITED DIVERSIFICATION AND MODERATE LIQUIDITY RISK

Frontclear maintains very low operational leverage, with its gross guaranteed exposures amounting to approximately 1.4x the sum of paid in and callable capital as well as available insurance protection as at YE2022. In addition, the short duration of the company's guarantee portfolio (around 1 year on average) limits default risk and provides Frontclear flexibility in reacting to changes in credit conditions. Beneficiaries of Frontclear's guarantees are further protected by a counter-guarantee from Kreditanstalt fuer Wiederaufbau (KfW, Aaa stable), the German Development Bank, extended to 30 September 2026. However, when assigning Frontclear's IFSR, we do not consider this counter-guarantee to support Frontclear's own capital adequacy, or lower its default probability, because it is only available in the event Frontclear defaults on a guarantee obligation, and is paid directly to the beneficiary.

Frontclear's value proposition consists in providing frontier market banks the ability to trade hard currency swap and repos with international banks by posting local currency collateral as security. In fact Frontclear acts as a guarantor by providing the beneficiary banks a hard currency guarantee on the early termination amount (ETA, the difference between the mark-to-market amount on the trade and the value of the collateral) of a trade; as a result the beneficiary banks are comfortable with holding local currency collateral as an alternative to hard currency collateral. In managing the risk of depreciation of the local currency collateral, Frontclear requires that all trades are supported by overcollateralization, with haircuts typically ranging from 20% to 50%. In addition, weekly or daily margining is required on all guaranteed transactions, often in USD, which reduces the risks associated with deterioration in the value of local currency collateral.

Frontclear limits the risk related to this concentration through specific country and counterparty limits, but beneficiary banks often require larger capacity and trade sizes to justify the overhead involved in setting up and executing these trades. As at year-end 2022, the two largest countries where Frontclear operates represented around 30% of the company's net maximum exposure.

In order to support capacity limits (in terms of gross notional exposures to individual counterparties and countries) required by beneficiary banks, the company has also purchased non-payment insurance protection from Lloyd's of London syndicates, with a \$75 million capacity. In addition, as of December 2022, approximately 10% of Frontclear's gross notional outstanding was supported by commercial non-payment insurance purchased from a selection of commercial insurers. The company has measures in place to limit counterparty risk related to this insurance, however we consider insurance to be a lower quality substitute for on-balance sheet capital.

The primary risk associated with the reliance on non-payment insurance is the liquidity constraint introduced by a 90 day waiting period in the insurance policies. In the event of a claim payment, Frontclear would need to pay the entire claim upfront while only being reimbursed by the insurer once the 90 days had elapsed.

The main source of liquidity risk for Frontclear is a conditional put option that beneficiary banks have, whereby they can require Frontclear to pay the full notional amount of the guarantee and take ownership of the collateral, in case of default by the frontier market obligor, as opposed to just paying the ETA amount. This would occur where there was no liquid market for the collateral and the beneficiary bank was not able to obtain binding quotes on the value of the collateral. Frontclear's stress tests show that the company holds sufficient funds to cover such an event, however there is limited track record and a scenario of multiple similar events, albeit very remote, might deplete Frontclear's liquidity resources, even while solvency capital remains sufficient. Frontclear is reducing this risk by increasing its capital base and liquid assets.

Over 2022 and 2023, Frontclear has diversified its portfolio of guarantees and improved the credit quality of guaranteed risk via portfolio guarantees, i.e. by providing guarantees to one beneficiary for a portfolio of obligor banks, not all of them domiciled in countries usually seen as developing or frontier markets.

Starting in 2024, Frontclear intends to act directly as a counterparty to repos with banks in frontier and emerging markets without having to rely on matching appetite from beneficiary banks. Frontclear also will expand to providing risk coverage for trade finance agreements with such banks. The risks associated with these transactions are similar in nature to the risks Frontclear is currently underwriting, but require additional fundraising.

Frontclear's capital base consists of three series of notes (subordinated notes, junior notes and callable notes), all subordinated to guarantee obligations, and redeemable at the end of a 15 year initial term (from the date of the second financial close), with the investors having an option to extend maturity for a further 10 years. A key feature of these notes is the stipulation that redemption payments are only made to investors out of funds remaining after all outstanding guarantee obligations have been wound down. In this manner, the notes – to the extent they are drawn and paid-in – are in substance very similar to equity capital, in the sense that they are permanent capital while the guarantee obligations are outstanding. As at year-end 2022, Frontclear had issued \$13 million of subordinated notes, \$91 million of junior notes and \$50 million of callable notes (issued in the second half of 2022). The callable notes can be drawn if the liquidity of the company weakens below a defined threshold.

PROFITABILITY: BROADLY BREAK-EVEN, BUT PROFITABILITY WILL REMAIN WEAK IN THE MEDIUM TERM

Frontclear's underwriting margins are relatively weak. In 2020, Frontclear attained positive underwriting margins for the first time, which turned negative in 2021, and back into positive territory in 2022. Weakness and volatility in underwriting margins are mainly based on relatively high expenses relative to revenues, which are a consequence of the scaling up of the company.

Frontclear's net income is also relatively weak, but expected to improve as the issuer's very conservative investment portfolio - fully invested in high credit quality, short duration money market and fixed income instruments - will produce higher investment returns thanks to the increase in interest rates.

While profitability is an important measure of Frontclear's sustainability and ability to successfully carry out its mandate, it is important to note that Frontclear is primarily a development institution, with investors that are not primarily profit-motivated. The company therefore seeks to generate a moderate profit from its operations, and avoid capital erosion, but in contrast to purely commercial entities, is not primarily profit focused. In addition, because residual profits are distributed to the holders of the Junior Notes, Frontclear's funding strategy does not rely on internally generated capital to support its growth and ongoing sustainability. Therefore, because profitability is less of an imperative than in purely commercial organizations, our expectation for Frontclear's profitability, at a given rating level, is lower than for commercial peers.

FINANCIAL FLEXIBILITY: SUPPORTIVE ANCHOR INVESTORS IMPROVE ACCESS TO CAPITAL AND UNDERPIN CREDITOR-FOCUSED FINANCIAL POLICY

As primarily a development focused entity, Frontclear's access to capital is highly dependent on continued participation of its supporting partners, which in turn is contingent on Frontclear's success in fulfilling its development mandate. To date, Frontclear has been the beneficiary of meaningful support from its development finance institution partners, in the form of capital contributions in the first financial close and the investors' unanimous agreement that Frontclear continues operations at a three-year checkpoint in 2018. In December 2019, Frontclear has strengthened its capital base and previous providers of unfunded capital agreed to convert into fully funded junior notes. In addition to enhancing its capital base, the second financial close in 2019 and the callable commitments received in 2022 have provided additional evidence of Frontclear's access to capital. However, it will be crucial for Frontclear to demonstrate that it can fulfil its development agenda to maintain and expand its funding structure.

Frontclear's and its primary investors' focus on development objectives, underpin its ability to maintain a creditor-focused financial policy, and we do not expect it to come under pressure to return capital to investors at the expense of creditors.

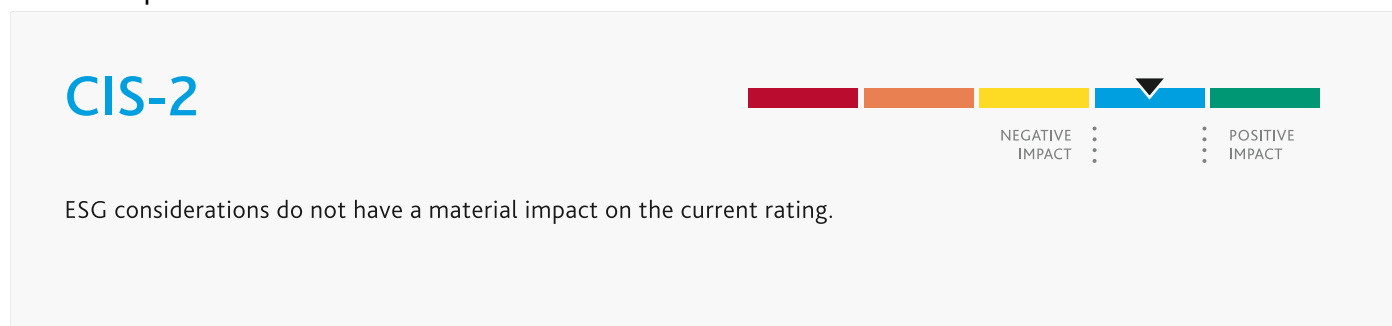
While Frontclear currently benefits from strong relationships with its investors, our assessment of its access to capital markets is somewhat weakened by its dependence on a small number of development-focused investors, and lack of direct access to public capital markets. In addition, until Frontclear reaches operational scale, its low earnings coverage will suppress our assessment of its financial flexibility.

A diversification of sources of funding, as evidenced by new investors or new providers of guarantees, would be a credit positive for Frontclear.

ESG considerations

Frontier Clearing Corporation B.V.'s ESG credit impact score is CIS-2

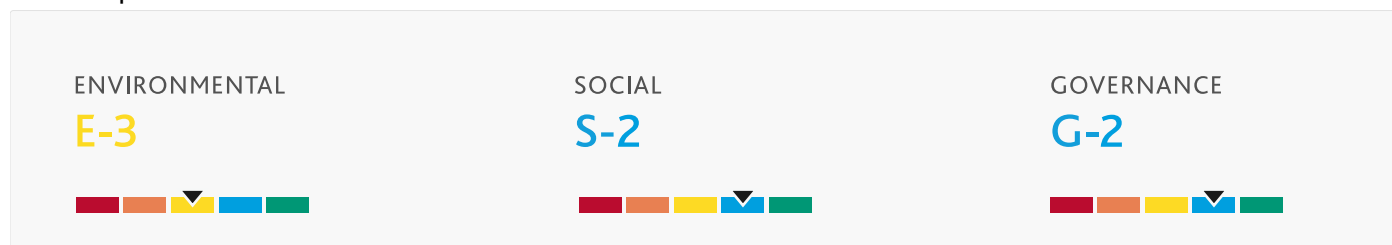
Exhibit 1
ESG credit impact score



Source: Moody's Ratings

Frontclear's **CIS-2** indicates that ESG considerations do not have a material impact on the current rating. The group's good risk management and capitalisation help reduce its indirect exposure to physical climate and social risks. We also view the company's mandate to support inter-banking markets and ultimately the economy of developing countries as a positive feature of Frontclear's credit profile.

Exhibit 2
ESG issuer profile scores



Source: Moody's Ratings

Environmental

Frontclear faces moderate environmental risks, notably because it is active in emerging markets and frontier economies with often high exposures to environmental risks. These indirect risks are partly mitigated by some level of geographic diversification of Frontclear's portfolio and the relatively short-term nature of these exposures, which allows Frontclear to manage down its exposure if the credit quality of a country does not fit with its risk appetite.

Social

Frontclear faces low social risks. The company has some indirect exposure to social risks as it operates in countries or delivers guarantees to banks exposed to these risks. However, we consider Frontclear's "responsible production" to be a positive feature of its issuer profile, given its mandate to develop interbanking markets to support economic growth in emerging and frontier markets.

Governance

Frontclear faces low governance risks. Frontclear maintains a strong level of capital and operates under a clear risk management and risk appetite framework which has protected the company efficiently in stress situations. Nonetheless, given its modest scale and the

recent launch of new products, the company still needs to demonstrate a track record of profitable growth. The company's governance and management also relies on a small number of key individuals.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Frontclear's investors include European governments – specifically the UK and German government - and a number of large, highly-rated development finance institutions, notably the European Bank for Reconstruction and Development (EBRD, Aaa stable), Proparco – the private sector financing arm of Agence Française de Développement (AFD), and FMO – the Dutch bilateral development bank. The guarantee obligations are counter-guaranteed by Kreditanstalt fuer Wiederaufbau (KfW, Aaa stable), the German Development Bank. While these investors provide ongoing technical and leadership support to Frontclear, we do not expect that they would provide financial support in excess of their already committed capital in the event of a stress scenario.

Rating methodology and scorecard factors

Exhibit 3

Frontier Clearing Corporation B.V.

Financial Strength Rating Scorecard [1][2]	Aaa	Aa	A	Baa	Ba	B	<B	ScoreAdj	Score
Business Profile									
Market Environment and Product Strategy (25%)								Baa	Baa
Industry Environment		X							
Market Position and Product Strategy						X			
Financial Profile									
Portfolio Characteristics and Capital Adequacy (40%)								Aa	A
- Risk-adjusted capital coverage		X							
Profitability (20%)								B	Baa
- Underwriting Margin (5 yr average)							-23.8%		
- Return on Capital (5 yr average)					-1.3%				
- Sharpe Ratio of ROC (5 yr)							NM		
Financial Flexibility (15%)								A	A
- Financial Policy		X							
- Ease of Access to Capital					X				
Operating Environment									
Preliminary Standalone Outcome			X					Aaa - A	Aaa - A

[1] Information based on financial statements as of Fiscal YE December 31. [2] The Scorecard rating is an important component of the company's published rating, reflecting the stand-alone financial strength before other considerations (discussed above) are incorporated into the analysis.

Source: Moody's Ratings

Ratings

Exhibit 4

Category	Moody's Rating
FRONTIER CLEARING CORPORATION B.V.	
Outlook	Stable
Insurance Financial Strength	Baa1

Source: Moody's Ratings

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