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ISSUER IN-DEPTH
29 November 2019

Eurofima – Aa2 stable

Annual credit analysis

RATINGS

Eurofima

	Rating	Outlook
Long-term Issuer	Aa2	STA
Short-term Issuer	P-1	--

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OVERVIEW AND OUTLOOK

Eurofima's (Aa2 stable) credit strengths include its strong asset quality. As of the end of 2018, 66% of its loan book was rated Aa or higher and only 1.7% was rated non-investment-grade. Supported by its preferred creditor status and rights over rolling stock until financing is completely reimbursed, Eurofima has never experienced a loss since its inception in 1956. In addition, its risk management framework is prudent and the level of supervision under which it operates is adequate.

We regard Eurofima's deleveraging and de-risking strategy in particular as a credit strength. Shareholders' capacity to extend support, mainly in the form of off-balance-sheet commitments, also supports its credit profile.

However, Eurofima's strength of member support has weakened substantially following changes to its statutes from October 2018 that removed the subsidiary shareholder guarantee (SSG) for all new loan contracts signed after 1 January 2018. The SSG has provided a substantial uplift to Eurofima's credit profile.

Credit challenges include very high leverage compared with peers. For example, Eurofima's leverage ratio, which we define as development assets and treasury assets rated A3 and below divided by usable equity, stood at 687% in 2018, significantly above the Aa-rated median of around 200%. In addition, the contractual support of shareholders covers only a relatively small portion of Eurofima's debt obligations, with a callable capital/total debt ratio of 13%. Finally, our assessment of non-contractual support is high given Eurofima's track record of expanding membership and the alignment of its public mission with the European Union's strategy to reduce CO_2 emissions.

The outlook on the rating is stable, supported by Eurofima's de-risking strategy, which should reduce its leverage and strengthen liquidity over time. An acceleration of this strategy, bringing Eurofima's leverage and capital adequacy metrics closer to Aaa-rated peers, would put upward pressure on the rating. Downward pressure would come to bear in the event of a pronounced and significant deterioration in asset quality.

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

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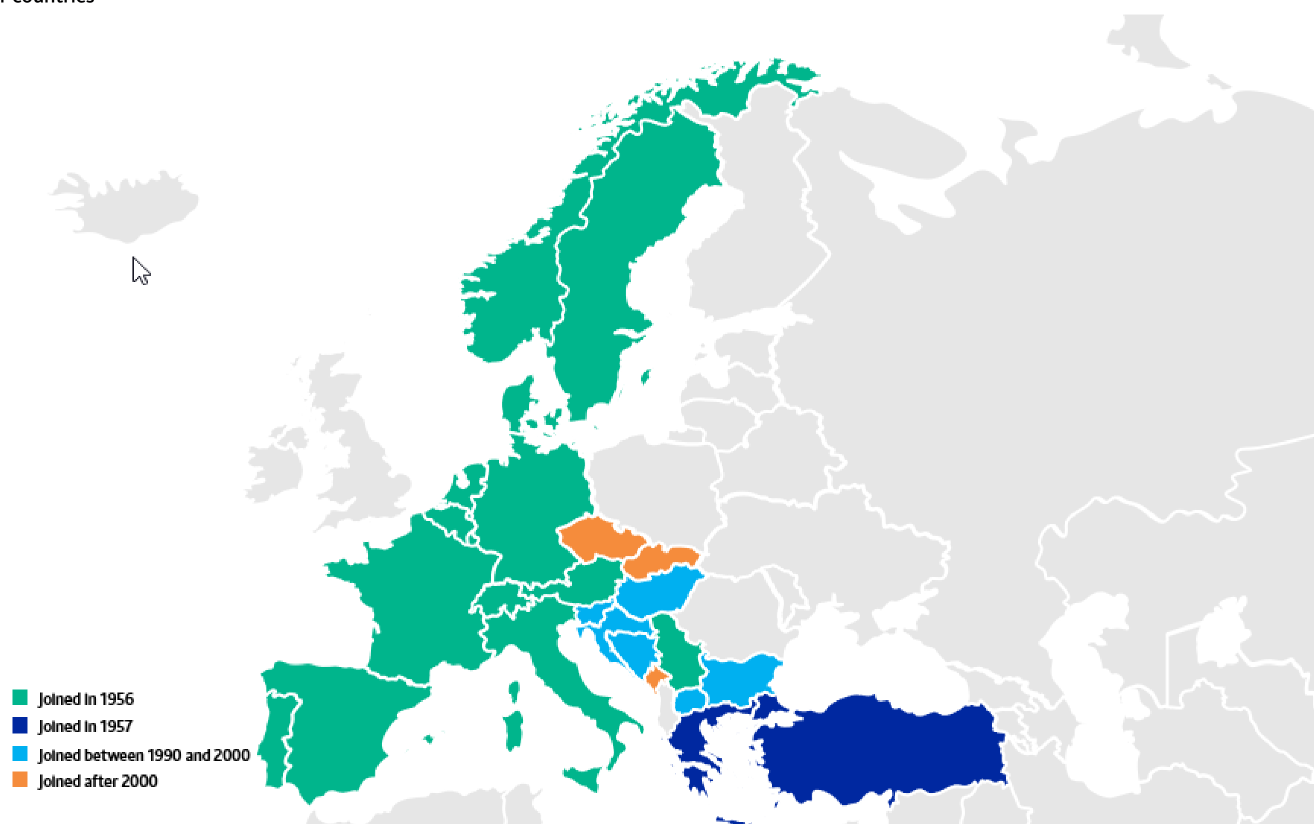
Organisational structure and strategy

Eurofima is a supranational organisation established by an international treaty ratified by 25 European countries. Its mission is to provide railway companies in signatory countries with competitive funding to renew or modernise their rolling stock. In common with other supranational organisations, Eurofima does not seek to maximise its profits, but rather obtain financing under the best possible conditions for its shareholder railways.

Eurofima was established in 1956 with an intended lifespan of 50 years. However, its mandate was extended in 1984 to 100 years until 2056. Its most recent member is the Republic of Montenegro (B1 positive), which joined in October 2006 (see Exhibit 1).

Exhibit 1
Eurofima was established by 14 members in 1956 and has been expanding ever since
Member countries



Sources: Eurofima, Moody's Investors Service

Eurofima's Convention, Articles of Association (statutes) and, in a subsidiary manner, the laws of the Swiss Confederation, where it is headquartered, govern the organisation. Any change to the founding treaty requires the approval of all member states.

Eurofima funds the acquisition of rolling stock by the railway companies of signatory countries through equipment-financing contracts. It finances itself on the capital markets, and advances these funds to railway companies. It does so while holding the title to the rolling stock until these companies have paid for the equipment in full. The title on the rolling stock only passes to the recipient company once the final contract instalment has been paid.

In common with other supranational organisations, Eurofima is not subject to regulatory supervision. The organisation observes a comprehensive risk management framework using best international practice, such as the Basel III framework and the International Financial Reporting Standards. Its general assembly approves its annual accounts and sets an annual borrowing cap. An independent external auditor audits the annual accounts.

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Statutory changes pave way for broadening of the shareholder base

Eurofima's members to date have been railway companies whose obligations are guaranteed by sovereign states. However, the organisation recently introduced statutory changes to take advantage of new opportunities stemming from the liberalisation of the passenger railway market in Europe. Amendments to its statutes approved in October 2018 will allow Eurofima to attract new customers and new shareholders such as public transport authorities and private train operators with a public service contract mandate. However, these entities will have to secure a sovereign or sub-sovereign guarantee to become shareholders.

The statutory changes have resulted in Eurofima discontinuing the subsidiary shareholder guarantee (SSG), materially weakening our assessment of shareholder support. Until now, in the event of a railway company failing to repay its debt, Eurofima – in parallel with the seizure of rolling stock and use of the guarantee reserve – would also call on state guarantees, the so-called “double guarantee” mechanism. First, each member state guarantees the obligations of its railway under the financing contracts; and second, each member state guarantees the obligations of its railway in its capacity as a Eurofima shareholder. The shareholders' obligations under the SSG will be discontinued. However, the discontinuation of the SSG will not apply to loans signed before the end of last year. This means that bonds issued before 1 January 2018 will continue to benefit indirectly from the SSG's protections.

European Commission regulatory changes support Eurofima's role as a financing institution

Eurofima's public mission to support the development of passenger rail transport aligns with its members' strengthening commitment to reducing greenhouse gas emissions. The sector achieved an important milestone in 2016 when the European Commission (EC) and European Parliament approved the Fourth Railway Package, the final step towards a Single European Railway Area. According to the EC, the new legislation's overarching goal is to revitalise the sector and make it more competitive compared with other modes of transport, given its low greenhouse emissions. According to research cited by Eurofima, the transportation sector accounts for almost 23% of energy-based CO2 emissions, while greenhouse gas emissions from rail transport are around 85% lower than the average emissions from road or air transport.

As such, we believe the approval of the Fourth Railway Package highlights the railway sector's increasing importance in the EU. This should also support Eurofima's role as a source of financing for the sector and increase shareholders' propensity to support the organisation in future.

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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 multilateral development banks (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. Strength of member support is then incorporated to yield a rating range. For more information, please see our Supranational Rating Methodology.

Capital adequacy score: a3

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	**b2**
Development asset credit quality	**aa**
Asset performance	**aaa**

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 assess Eurofima's capital adequacy as "a3" in light of its strong asset quality, which mitigates substantial leverage. The organisation's credit profile also benefits from exceptionally high asset performance, given the absence of both credit losses and overdue payments since its inception in 1956.

High asset quality counterbalances very high leverage

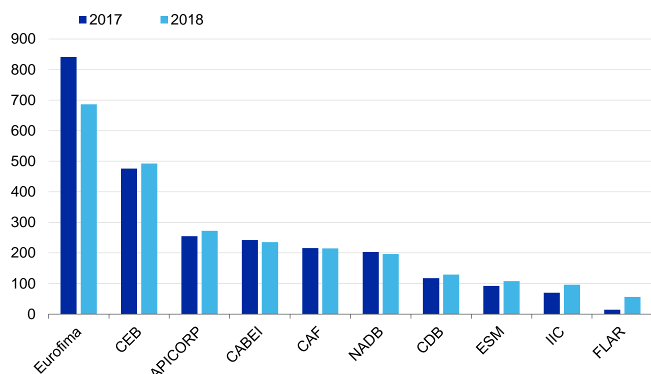
Eurofima finances up to 95% of the estimated total value of contracted equipment in each of its railway projects. Equipment-financing contracts are its largest asset class, representing 63% of total assets or CHF11.3 billion as of the end of 2018. The remaining portion of its asset pool is divided between liquid assets (28% of total assets) and derivative financial instruments (8.5%). Equipment-financing contracts shrank by 17.7% in 2018 in line with a reduction in the size of Eurofima's loan book and deleveraging strategy.

Assets as a percentage of usable equity,[1] our key measure for leverage, stood at 687% at the end of 2018, down from 841% at the end of 2017. Despite declining from over 1,500% since 2009, this percentage remains particularly high and by far exceeds all the other MDBs we rate (see Exhibit 2). It also compares unfavourably with the Aa-rated median, which stood at 216% in 2018.

Exhibit 2

Eurofima's leverage is one of the highest in our rated universe

Development-related assets rated A3 or lower as % of useable equity, Aa-rated peers

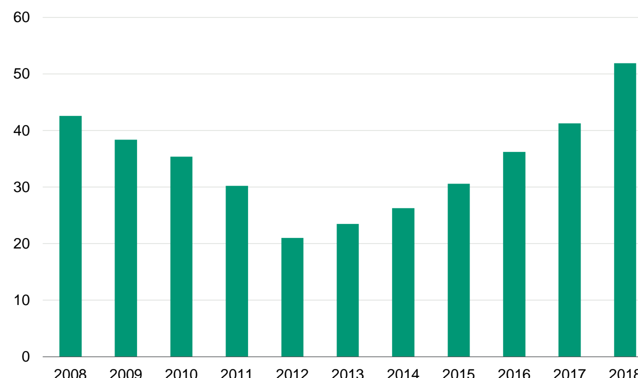


Sources: MDB financial statements, Moody's Investors Service

Exhibit 3

Deleveraging and de-risking increased Basel III ratio

Basel III ratio



Sources: Eurofima, Moody's Investors Service

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Measured by the Basel III capital adequacy ratio, Eurofima's capital position stood at 51.9% in 2018 (see Exhibit 3). The ratio has materially improved in recent years, from 41.3% in 2017 and 36.2% in 2016, mainly driven by a decline in Eurofima's loan book, in tandem with an increasing volume of liquid assets and a declining exposure to non-investment-grade borrowers.

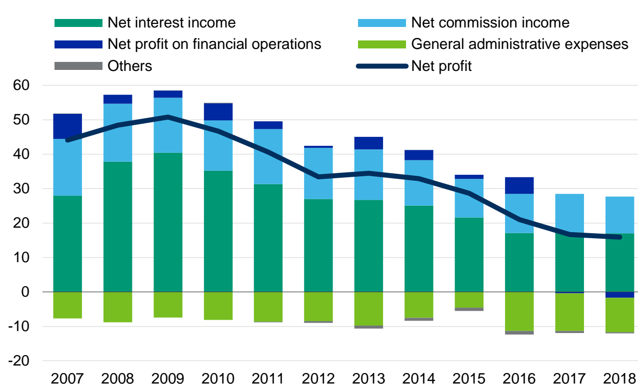
However, as with other MDBs, Eurofima does not have the access to the liquidity facilities that central banks provide to commercial banks, which explains the need for a higher capital buffer compared with these institutions. In addition, its ability to replenish an eroded capital base through earnings is limited by its mandate to obtain the lowest possible financing costs for its shareholder railways, which has historically led to low levels of profitability, another typical feature of MDBs. The very low lending margins of its pre-existing loan portfolio have in effect limited income derived from on-lending. In addition, earnings from Eurofima's investment portfolio, its second main source of income, have been constrained by internal investment rules. Eurofima targets very high credit quality investment, and the volume of invested funds is relatively small given that these investments are primarily used for liquidity management.

Eurofima recorded net profit of CHF15.9 million in 2018, 4.4% lower than a year earlier due to falling net interest reflecting a decline in its loan portfolio size and the low interest rate environment (see Exhibit 4). We expect Eurofima's risk-reduction strategy to continue to constrain profitability. Lending limits in place between 2011 and 2018 helped curb lending by restricting loans to weaker railway companies, further reducing commission income.

Exhibit 4

Profits have been decreasing due to deleveraging and the low interest rate environment

Net income breakdown, CHF million

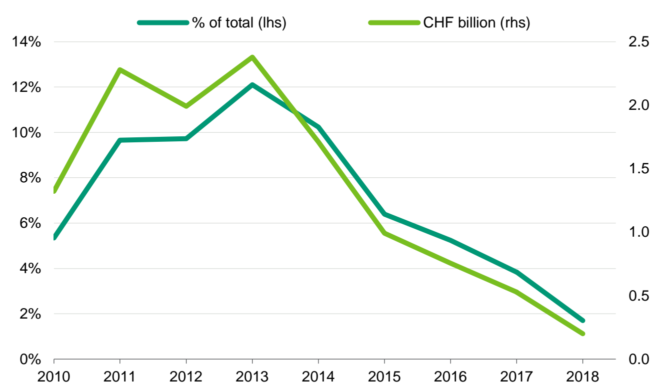


Sources: Eurofima, Moody's Investors Service

Exhibit 5

Non-investment-grade exposure has declined since its peak in 2013

Non-investment-grade exposure, % of total (lhs) and CHF billion (rhs)



Sources: Eurofima, Moody's Investors Service

The high credit quality of its portfolio counterbalances Eurofima's high leverage ratio. We assess the credit quality of Eurofima's development assets as “aa”, mainly based on its weighted average shareholder rating (WABR) of Baa1. The credit risk present in Eurofima's loan book increased in the years following the European sovereign debt crisis, but had recovered as of 2014 following rating upgrades for some euro area sovereigns and a reduction in Eurofima's non-investment-grade exposure. Eurofima's WABR is now three notches higher than its lowest level of Ba1 in 2012 and 2013 (see Exhibit 6).

This improvement stemmed from changes to Eurofima's strategy in 2009, given the priority of reducing lending risks, starting with its exposure to non-investment-grade countries. Reflecting this de-risking strategy, Eurofima's non-investment-grade exposure has continued to fall. As of the end of 2018, the exposure had reached CHF196 million, or 1.7% of its loan book, down from around 12% in 2013 and an average of 8.9% between 2010 and 2015 (see Exhibit 5). Eurofima's exposure to non-investment-grade countries is likely to disappear completely in the coming year.

Our assessment of the credit risk present in Eurofima's portfolio also considers its concentration. Eurofima's mandate to provide financing to railway companies means that the potential for sectoral diversification is structurally limited, though the railway sector is not a cyclical industry. That said, our other measures of concentration, which look at the geographic dispersion of the portfolio and the share of loans to top 10 clients, constrain our assessment of credit quality. In 2018, 98% of Eurofima's development-related assets were

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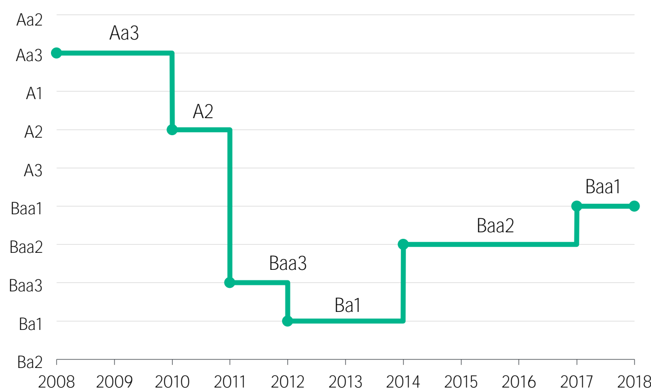
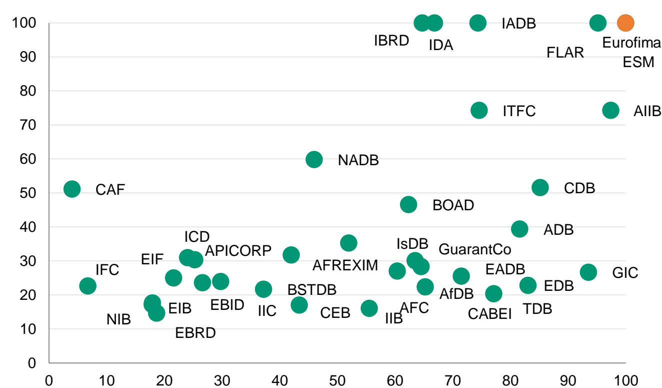
concentrated in its top 10 borrowers, substantially higher than the median for our rated universe of 65%. As a result, Eurofima has one of the highest concentration ratios in our rated universe (see Exhibit 7).

Exhibit 6
Borrower quality has started to recover following the euro area crisis
Weighted average borrower rating (WABR)[1]



[1] WABR is weighted by the probability of default associated with particular rating levels
Sources: Eurofima, Moody's Investors Service

Exhibit 7
Eurofima's portfolio is highly concentrated
Sectoral concentration (x-axis), top 10 borrowers concentration (y-axis) (HHI[1])



[1] Herfindahl-Hirschman Index
Sources: MDB financial statements, Moody's Investors Service

No nonperforming loans since Eurofima's inception highlights prudent lending criteria

Eurofima's overall asset quality remains very high, given the absence of both credit losses and overdue payments, and it has never suffered a loss since its inception in 1956. However, its preferred creditor status was most recently tested during the restructuring of Greek debt held by the private sector applied to the Greek Railway Company.[2] Eurofima's loan was excluded from this programme.

We do not expect the credit quality of the loan portfolio to materially change in light of the planned broadening of Eurofima's membership, and therefore its borrower base. In the short term, lending to railways supported by sub-sovereign entities in markets that are already largely liberalised, such as Germany (Aaa stable), could actually improve asset quality. Furthermore, Eurofima's firm commitment to engage with high-quality guarantors will help ensure continuity with its current prudent lending strategy.

Strong protection mechanism against credit losses mitigates weak capital position

Eurofima's very strong protection mechanism against credit losses mitigates its tight capital position. All the organisation's loans are **collaterised by the rolling stock**, which means that it holds the title to the equipment it finances until the financing is completely reimbursed. Although physical asset collateral is not asset quality-enhancing unless it has a liquid secondary market and its value is certified (which is not the case for rolling stock), it increases the incentive for borrowers to honour their financial obligations. Moreover, while the liquidation of the rolling stock by Eurofima remains untested, we assume that seizure of collateral would increase recovery rates, though it could take time to recover the assets.

There is also a **sovereign guarantee**. While Eurofima's shareholders are railway companies, the sovereign guarantee is a prerequisite to becoming a member of the organisation. Equally importantly, the sovereign guarantees all the obligations of the shareholder, including obligations stemming from the subsidiary shareholder guarantee (see below). As noted above, Eurofima will also allow for non-sovereign guarantors going forward to position it for the European railway market's upcoming liberalisation. This option will only be available to regional states of Eurofima Member States.

In addition, Eurofima can use its guarantee reserves and fund for general risks, which amounted to CHF 1.0 billion as of the end of 2018 (equal to 9% of the total loan portfolio), to cover eventual loan losses. These reserves cover 27.1% of outstanding financing to borrowers rated Baa1 or lower (book value). However, using the reserves would weaken Eurofima's equity position, further increasing its leverage.

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Lastly, there is a **subsidiary shareholder guarantee (SSG)** to cover any losses in the loan portfolio, up to the limit of a shareholder's participation in registered capital. For example, in the event of a default by one of the weaker borrowers, other shareholders would have to cover the losses in proportion to their capital key. This guarantee sits in addition to shareholder's callable capital obligations and its use does not reduce callable capital. The SSG is activated only if the guarantee reserve and fund for general risks cannot cover the loss (see detailed discussion on the state and shareholder guarantee in Factor 3, "Strength of Member Support", below). That said, the changes to Eurofima's statutes in 2018 have resulted in the discontinuation of the SSG for equipment financing contracts after 1 January 2018, meaning that lending contracts signed since then no longer benefit from this protection mechanism.

2018 marked a transition year and the setting of new priorities

Eurofima over the past decade has effectively reduced the risk of its loan portfolio (see Exhibit 8). It began to adjust its lending policies in 2009 to limit its exposure to non-investment-grade countries and formally adopted an investment-grade rating as a precondition to obtaining financing. It has also strengthened its capitalisation and liquidity ratios.

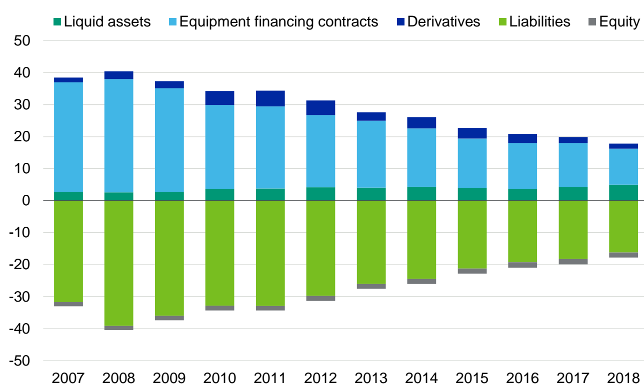
Eurofima stopped paying dividends in 2009 as part of its consolidation strategy. As a result, it has consistently allocated annual profits to its capital reserves, helping support usable equity (see Exhibit 9). Equity reached CHF1,644 million as of the end of 2018, up from CHF1,632 million at the end of 2017. However, 2018 marked a return to dividend payouts, with 2% of paid-in share capital distributed among shareholders, half the statutory limit of 4%. Overall, two thirds of the 2018 net profit was allocated to dividends and one third to reserves (guarantee, ordinary and fund for general risks).

In light of its constrained profitability and assuming that annual profits continue to be distributed among the shareholders, usable equity is likely to remain stable over the next several years. As a result, and taking Eurofima's ambitious expansion plan into the new group of sub-sovereign borrowers into consideration, we expect the organisation's balance sheet to remain stable in the next two years, and to increase thereafter.

Exhibit 8

Eurofima has engaged in deleveraging since 2018

Balance sheet breakdown, CHF billion

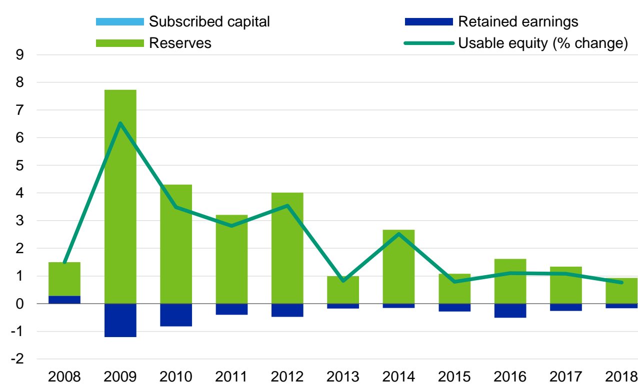


Sources: Eurofima, Moody's Investors Service

Exhibit 9

Dividend payout will further limit Eurofima's capacity to build up equity

Change in useable equity and its contributors



Sources: Eurofima, Moody's Investors Service

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Liquidity and funding score: aa2

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	aa

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.

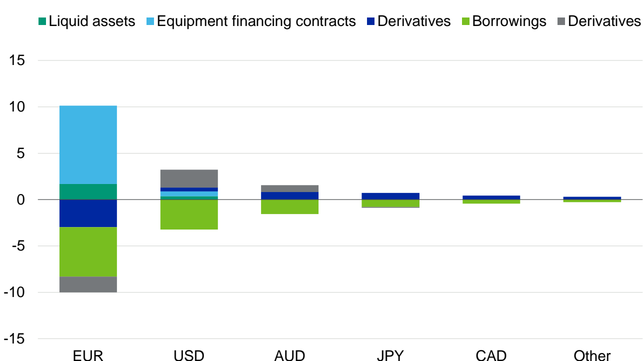
Our "aa2" assessment of Eurofima's liquidity reflects its prudent liquidity policy, the strict back-to-back asset liability management of its core lending businesses, and its highly liquid and highly rated treasury portfolio. In addition, Eurofima is a well-established issuer on the international markets, reflected in its diversified investor base by geography, currency and investor type, as well as its very low cost of funding.

Prudent policies underpin robust liquidity position

Liquidity plays an important role in the credit assessment of MDBs because – with the exception of the European Investment Bank (EIB, Aaa stable) and West African Development Bank (BOAD, Baa1 stable) – they are ineligible for emergency funding from a central bank. Eurofima's liquidity management policies are particularly strict given its reliance on market funding. According to these policies, it maintains sufficient liquidity to meet all its operating and refinancing requirements for the ensuing 12-month period. In doing so, it applies credit risk haircuts to all maturing assets and liquidity risk haircuts to all securities that will be sold under a stressed scenario where it has no market access. In addition, all investment securities must carry a minimum rating of A3/P-1 at the time of purchase.

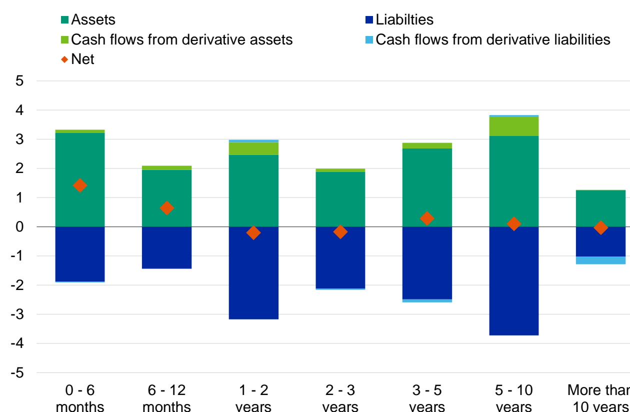
Eurofima also conducts a very strict back-to-back approach to asset/liability management for its core lending business. It has no maturity mismatches, and thus no funding gap, assuming that borrowers reimburse on time. It also hedges currency risks in a systematic matter using swap transactions (see Exhibits 10 and 11). Similarly, it uses interest-rate swap transactions to hedge interest-rate risks.

Exhibit 10
Eurofima has no open foreign-currency positions…
Assets and liabilities by currency, CHF billion, end-2018



Sources: Eurofima, Moody's Investors Service

Exhibit 11
… and almost no maturity mismatches
Outstanding maturities for assets and liabilities, CHF billion



Sources: Eurofima, Moody's Investors Service

Since January 2017, Eurofima has been gradually amending its collateral arrangements for derivatives exposures to allow daily valuation and bilateral exchange of collateral in the form of cash. Additional cash related to two-way credit support contract derivative

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agreements was the main driver of an increase in liquid assets of CHF0.7 billion, or 16.8%, in 2018, following a similarly large increase in 2017 (17.6%, see Exhibit 12). According to Eurofima's policies, cash collateral investments must have a minimum credit quality of Aa3/P-1, three notches higher than the rest of treasury portfolio.

Treasury portfolio is highly liquid and highly rated

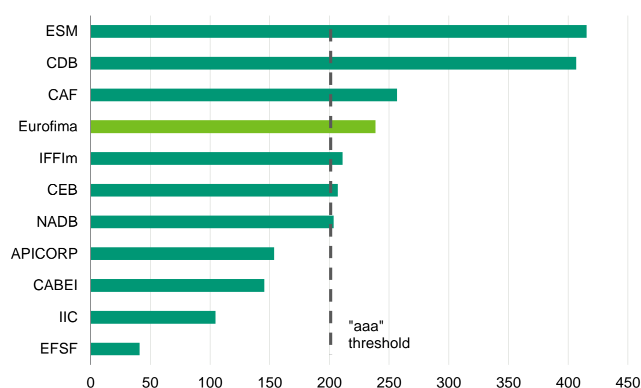
To assess the liquidity position of an MDB, we analyse the size of available liquid assets relative to cash outflows in a stressed scenario over the coming 18 months in which the MDB has no access to markets but continues its normal business operations. Loan disbursements and debt maturities are Eurofima's main outflows, while repayments from previously disbursed loans are its main inflows. Its ratio of liquid assets to net outflows is very robust at 238.6%, which results in a factor score of "aaa" (see Exhibit 13).

Eurofima's treasury portfolio is also very highly rated. Forty percent of its liquid assets are invested in Aaa-rated securities, and 16% in Aa-rated securities (see Exhibit 13). The remaining 40% is allocated to the non-rated category, which in 2018 consisted mostly of fixed-income instruments issued by Swiss cantons and cities.

Exhibit 12

Eurofima's credit profile is characterised by strong liquidity buffers

Liquid assets/net outflows, Aa-rated peers

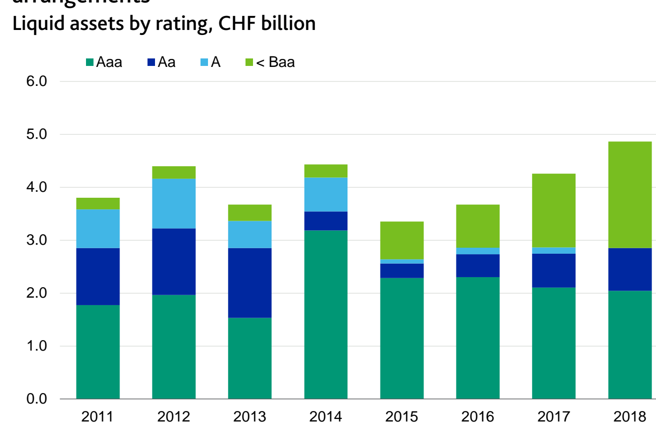


Sources: Eurofima, Moody's Investors Service

Exhibit 13

Liquid assets have increased amid changes to collateral arrangements

Liquid assets by rating, CHF billion



Sources: Eurofima, Moody's Investors Service

Track record of international issuance reflects strength of ability to raise funds

For a relatively small MDB, Eurofima has been a well-recognised issuer in the global capital markets for many years and has consistently had access to a variety of markets and in various currencies. These factors underlie our "aa" assessment of its quality of funding.

Eurofima raises funds in the international capital markets, typically in the form of public bond issuances under its debt issuance programme and through commercial paper. Its funding strategy is based on three pillars: (1) prominent roles for US dollar- and euro-denominated funding; (2) a strategic commitment to the Australian dollar and Swiss franc bond markets; and (3) currency diversification.

As of the end of 2018, Eurofima's outstanding bonds were mostly denominated in euros, followed by US and Australian dollars. The organisation's frequent and regular issuance on those markets means that it is able to maintain very low costs of financing and attract very high-quality investors, such as central banks and fund managers.

In 2018, Eurofima raised CHF1.1 billion of debt in capital markets and CHF5.1 billion equivalent in the money market, with a primary focus on the euro and US dollar markets. Its most significant issues were a $500 million three-year floating rate bond and an inaugural €500 million fixed-rate green bond: maturing in February 2024, the latter bond has a fixed-rate coupon of 0.25%. A new line in the Australian dollar market was also established and tapped twice for bonds maturing in 2029.

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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.

Our credit assessment of MDBs also takes several other factors, such as an organisation's operating environment and the quality of its management, including risk management, into account. However, we do not apply any adjustment for these factors in Eurofima's case.

Operating environment

Multiple years of strong economic growth have supported debt reduction across Europe. Coupled with a lower-for-longer interest rate environment and an increasing commitment to tackle climate change at the top of the EU's leadership, this is likely to foster governments' investments in expanding their railway systems.

Although the region's growth has slowed over the past several quarters, and external risks related to global trade have increased, we do not foresee a material weakening of Eurofima's operating environment in the coming one to two years that could justify a downward adjustment. Moreover, we note that Eurofima's narrow specialisation in providing financing for the rolling stock protects it from fluctuations in the economic cycle because the railway sector is not, by and large, a cyclical industry.

Quality of management

Eurofima's risk management policies are prudent and robust, and its governance principles are of a high standard, in line with our expectation at this rating level.

In common with other supranational organisations, Eurofima is not subject to regulatory supervision. It observes a comprehensive risk management framework using best international practice, such as the Basel III framework and the International Financial Reporting Standards. Its general assembly approves annual accounts and sets an annual borrowing cap, while an independent external auditor audits its annual accounts.

Eurofima's board of directors, which meets quarterly, authorises the organisation's borrowing and lending activity, and maintains an internal control system for financial reporting. Eurofima's audit and risk committee supports the board in its comprehensive supervisory role in respect of financial control, risk control, audit and compliance management.

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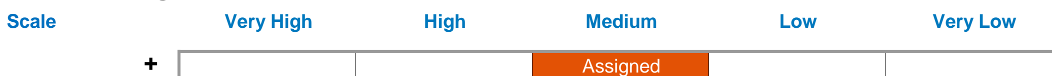
Strength of member support score: Medium

Factor 3: Strength of member support



Sub-factor scores

Ability to support	**a2**
Willingness to support: Contractual	**b2**
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.

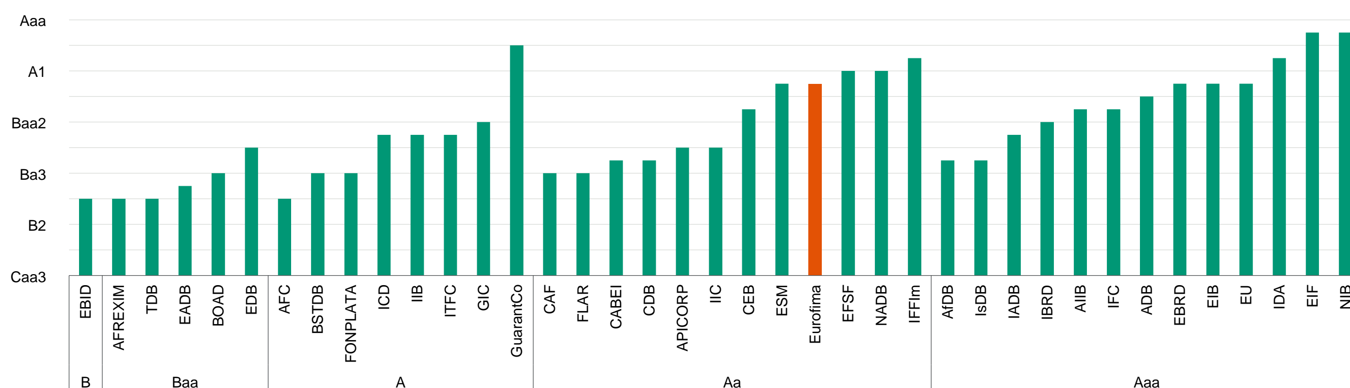
Eurofima receives a score of Medium in respect of our methodological assessment of strength of member support. The score balances the very high ability of Eurofima's shareholders to provide support, as reflected in a weighted average shareholder rating of A2, with the very limited size of contractual support relative to its debt obligations. However, our assessment of non-contractual support is high in light of Eurofima's track record of expanding its membership and the alignment of its public mission with the EU's strategy to reduce CO2 emissions.

Shareholder ability to support in case of need is strong

Despite declining since the crisis, Eurofima's weighted average shareholder rating (WASR) of A2 is still one of the highest in our MDB rating universe (see Exhibit 14). According to this metric, the credit quality of Eurofima's members was among the top 10 in our rated universe and positioned it on a par with supranationals such as the European Stability Mechanism (Aa1 positive), the European Bank for Reconstruction and Development (Aaa stable) and the European Union (Aaa stable).

Moreover, Aaa and Aa-rated sovereigns account for 72% of subscribed capital, while non-investment-grade and non-rated sovereigns represent only 4.5%, reflecting shareholders' robust ability to provide financial assistance.

Exhibit 14
High average rating of Eurofima's shareholders reflects their strong ability to provide support in case of need
Weighted average shareholder rating (WASR)



Sources: MDBs financial statements, Moody's Investors Service

Because sovereigns guarantee the liabilities of their railways, they take the effective place of shareholders in our methodology when assessing member support. However, the railways are the direct shareholders in Eurofima's case. The robust liquidity positions of railways, as well as the commercial and technical interconnections between them, should be sufficient incentive to provide capital to Eurofima if required.

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Low callable capital relative to debt obligations constrains contractual strength of member support

Gauging the willingness of members to support Eurofima involves an assessment of contractual and non-contractual support. The most common form of contractual support for an MDB is callable capital, which is a contractual obligation to provide additional capital if the MDB requests it. While in most cases an MDB can only do so to service debt, Eurofima can call capital for any other reason by a decision of its board of directors, including advancing on its objectives or shoring up liquidity.

However, to assess the potential effectiveness of callable capital as a support mechanism, we look at the relation of the callable capital to outstanding debt stock. Eurofima's score on this measure is relatively weak, at "b2", and primary reflects its high leverage. The ratio was 13.3% in 2018 and is currently one of the lowest in our rated universe, after African Export-Import Bank (AFREXIM, Baa1 stable), Corporacion Andina de Fomento (CAF, Aa3 stable) and the European Financial Stability Facility (EFSF, Aa1 positive).

The low score reflects Eurofima's substantial leverage, though callable capital accounts for 80% of total subscribed capital. Eurofima's de-leveraging strategy has more than halved the volume of its borrowing since its peak in 2008, and supported a fall in the ratio of debt-to-callable capital over the past two years. However, in the absence of a statutory increase in callable capital, we expect the ratio to remain elevated in the coming years given the current pace of debt reduction.

Finally, we note that Eurofima's small size relative to other supranational institutions is a strength. Given the very high creditworthiness of its shareholders, we expect the shareholders to be in a position to provide financial support in the event of an emergency.

High non-contractual support reflects track record of new memberships and importance of mission

We assess strength of non-contractual support qualitatively based on several considerations, including the institution's track record of capital increases, whether shareholders have remained current on their capital payments, and the importance of the institution's mandate for the shareholders, as well as reputational risk in the event that the institution fails to repay its debt.

In Eurofima's case, non-contractual support for the organisation is exemplified by its expanding membership. Eleven new members have joined since its establishment in 1956. The most recent was Montenegro (B1 positive), which joined in 2006, following the Czech Republic (Aa3 stable) and Slovakia (A2 stable) in 2002 and 2000, respectively. Our assessment of non-contractual support also rests on the alignment of Eurofima's public mission to support the development of passenger rail transport with its members' commitment to reducing greenhouse gas emissions. Research by the International Energy Agency notes that the transportation sector accounts for almost 23% of energy-based CO_2 emissions. Greenhouse gas emissions from rail transport are around 85% lower than the average emissions from road or air transport, according to the International Union of Railways.

Most recently, member support was exemplified by the unanimous support from Eurofima's shareholders to change the organisation's statutes to allow new regional shareholders to be admitted. The statutory changes have prepared Eurofima for the changing regulatory and operating landscape, with the move towards a more decentralised railway market.

However, the relatively high concentration of Eurofima's portfolio, which has developed over the last decade, could reduce the propensity of shareholders to support the organisation in future. Around half of Eurofima's member states have few or no loans outstanding with the organisation (see Exhibit 15), and its largest shareholders are not its largest beneficiaries (see Exhibit 16). We do not expect this situation to change substantially because some railways have shown their willingness to maintain their own presence on the capital markets, as well as holding rights to the rolling stock during the financing period. Against this backdrop, the recent statutory changes aim to increase Eurofima's attractiveness by providing favourable financing conditions to public transport authorities.

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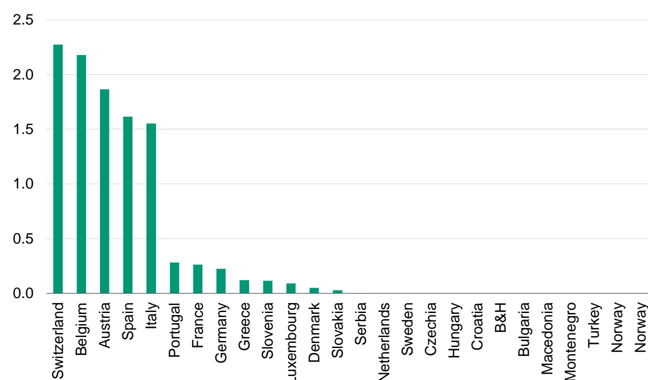
Exhibit 15

Eurofima's loan portfolio is concentrated in five members

Outstanding loans, CHF billion

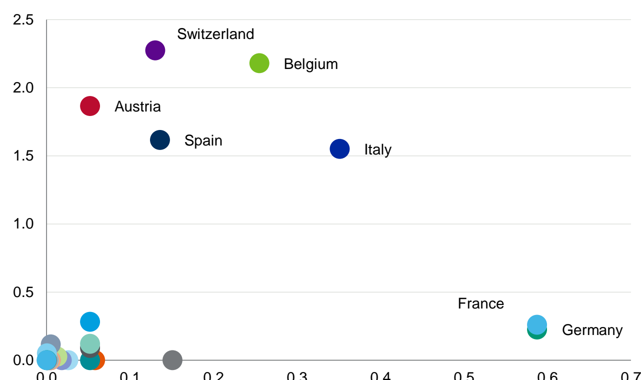


Sources: Eurofima, Moody's Investors Service

Exhibit 16

Eurofima's largest shareholders are not its largest borrowers

Subscribed capital (x-axis), outstanding loans (y-axis), CHF billion



Sources: Eurofima, Moody's Investors Service

Additional enforcement mechanisms enhance contractual support

A number of enforcement mechanisms underpin Eurofima's contractual support. First, in the event of a railway company failing to repay its debt, Eurofima – in parallel with the seizure of the relevant rolling stock and use of the guarantee reserve – can call on state guarantees. This functions as a form of double guarantee: (1) each member state guarantees the obligations of its railway under the equipment financing contracts; and (2) each member state guarantees the obligations of its railway in its capacity as a Eurofima shareholder.

This double guarantee mechanism enhances the callable capital mechanism, increasing the size of support for equipment financing contracts. For example, in the event of a default by one of the weaker borrowers, other shareholders, such as Germany (Aaa stable) or France (Aa2 positive), would have to cover the losses in proportion to their capital key under the subsidiary shareholder guarantee (SSG). Eurofima can call the SSG provided that a railway and its guaranteeing member state have not discharged obligations under equipment financing contracts, and that the guarantee reserve is insufficient to cover the loss resulting from a missed payment.

However, recent changes to Eurofima's statutes resulted in the discontinuation of the SSG for all loan contracts signed after 1 January 2018. Although the "old" loan contracts continue to benefit from the clause, the SSG will progressively fade as the old loans fall due. Given the substantial uplift that the SSG has provided to Eurofima's credit profile, particularly in the context of its very high leverage, we changed our assessment of Eurofima's strength of member support to Medium from High after Eurofima announced that the changes to its statutes had come into effect.

ESG considerations

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

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

Environmental considerations have a limited influence on Eurofima's credit profile, but it is a key player supporting the European objective of increasing the share of clean transportation. Within the railway sector, efforts to replace diesel engines with alternative energy sources require investments to modernise the railway fleet, and hence new funding opportunities for Eurofima.

Social considerations are not material to Eurofima's rating.

Governance considerations support Eurofima's credit profile. The organisation's prudent lending policy and strict back-to-back asset liability management underpin a very strong liquidity and funding position. The absence of credit losses since Eurofima's inception in 1956 also reflects a structurally solid institution.

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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 on our rating approach is provided in our Supranational Rating Methodology.

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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 17

Supranational rating metrics: Eurofima

Capital adequacy

How strong is the capital buffer?

Sub-Factors: Capital position, development asset credit quality, asset performance

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

Liquidity and funding

How strong are the institution's liquidity buffers?

Sub-factors: Liquid resources, quality of funding

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

Preliminary intrinsic financial strength

a1

Qualitative adjustments

What other elements can affect the intrinsic financial strength?

Adjustment factors: Operating environment, quality of management

Operating environment	0
Quality of management	0

Adjusted intrinsic financial strength

a1

Strength of member support

How strong is members' support of the institution?

Sub-factors: Ability to support, willingness to support (contractual and non-contractual)

Scale: Very High, High, Medium, Low, Very Low (+ to -)

Rating range: **Aa2-A1**

Assigned rating: **Aa2**

Source: Moody's Investors Service

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Comparatives

This section compares credit relevant information regarding Eurofima 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.

We assess Eurofima's capital adequacy as "a3", two or three notches below Aa1 and Aa2-rated peers, because its very high leverage ratio (one of the largest in our rated universe), affects its capital adequacy assessment. Eurofima's nonperforming loan ratio is very low compared with peers. We assess Eurofima's liquidity and funding as "aa2", consistent with rating peers. Strength of member support is Medium, on a par with peers.

Exhibit 18

Eurofima's key peers

	Year	Eurofima	CEB	CABEI	CDB	FLAR	APICORP	Aa Median
Rating/Outlook		**Aa2/STA**	**Aa1/STA**	**Aa3/STA**	**Aa1/STA**	**Aa2/STA**	**Aa2/STA**	
Total assets (US$ million)	2018	18,094	27,879	10,850	1,718	6,867	6,953	8,902
Factor 1: Capital adequacy		**a3**	**a1**	**a1**	**aa3**	**aa3**	**aa3**	
DRA / Usable equity[1] [2] [4]	2018	686.9	492.3	235.1	128.9	56.4	272.4	215.5
Development assets credit quality score (year-end)	2018	aa	aa	baa	ba	b	a	baa
Non-performing assets / DRA[1]	2018	0.0	0.0	0.0	0.4	0.0	0.5	0.5
Return on average assets[4]	2018	0.1	0.4	2.2	0.9	1.6	2.8	0.9
Net interest margin (X)[4]	2018	0.1	0.7	2.3	1.4	1.3	1.9	1.3
Factor 2: Liquidity and funding		**aa2**	**aa2**	**aa2**	**aa2**	**aa3**	**aa3**	
Quality of funding score (year-end)	2018	aa	aa	aa	aa	baa	aa	aa
Liquid assets / ST debt + CMLTD[3][4]	2018	155.4	228.6	357.9	995.7	0.0	173.3	324.0
Liquid assets / Total assets[4]	2018	28.0	33.1	31.3	26.7	72.4	31.9	32.3
Preliminary intrinsic financial strength (F1+F2)		**a1**	**aa3**	**aa3**	**aa2**	**aa3**	**aa3**	
Adjusted intrinsic financial strength		**a1**	**aa2**	**a1**	**aa3**	**aa3**	**aa3**	
Factor 3: Strength of member support		**M**	**M**	**M**	**H**	**L**	**M**	
Weighted average shareholder rating (year-end)	2018	A2	Baa1	Ba2	Ba2	Ba3	Ba1	baa3
Callable capital / Total debt	2018	13.3	24.9	53.3	172.7	--	25.7	39.5
Callable capital (CC) of Baa3-Aaa members/Total CC[4]	2018	96.3	97.0	31.7	47.3	--	61.0	96.7
Rating range (F1+F2+F3)		**Aa2-A1**	**Aaa-Aa2**	**Aa2-A1**	**Aaa-Aa2**	**Aa2-A1**	**Aa1-Aa3**	

[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

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DATA AND REFERENCES

Rating history

Exhibit 19
Eurofima [1]

	Issuer Rating		Senior Unsecured[1]	Outlook	
	Long-term	Short-term			Date
Rating Lowered	Aa2	P-1	Aa2	STA	Oct-18
Outlook Changed	--	--	--	RUR-	May-18
Outlook Changed	--	--	--	STA	Jun-14
Rating Lowered	Aa1	P-1	Aa1	--	Jun-14
Outlook Changed	--	--	--	NEG	Jan-13
Outlook Assigned	--	--	--	STA	Nov-03
Rating Assigned	Aaa	--	--	--	Dec-94
Rating Assigned	--	P-1	--	--	Feb-88
Ratign Assigned	--	--	--	--	Apr-84

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

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Annual statistics

Exhibit 20

Balance sheet

Balance Sheet, CHF Millions	2012	2013	2014	2015	2016	2017	2018
Assets							
Cash & Equivalents	1,618	1,114	1,206	1,016	1,152	1,808	2,181
Securities	2,575	2,979	3,099	2,900	2,472	2,454	2,799
Derivative Assets	4,557	2,533	3,493	3,361	2,884	1,890	1,523
Net Loans	22,541	20,932	18,275	15,508	14,377	13,731	11,295
Net Equity Investments	0	0	0	0	0	0	0
Other Assets	18	19	16	16	15	14	19
Total Assets	**31,308**	**27,577**	**26,089**	**22,801**	**20,900**	**19,897**	**17,817**
Liabilities							
Borrowings	28,311	24,634	23,300	20,164	18,400	17,639	15,662
Derivative Liabilities	1,445	1,380	1,186	1,023	817	600	383
Other Liabilities	19	19	19	18	68	26	128
Total Liabilities	**29,775**	**26,032**	**24,505**	**21,205**	**19,286**	**18,265**	**16,173**
Equity							
Subscribed Capital	2,600	2,600	2,600	2,600	2,600	2,600	2,600
Less: Callable Capital	2,080	2,080	2,080	2,080	2,080	2,080	2,080
Less: Other Adjustments	0	0	0	0	0	0	0
Equals: Paid-In Capital	520	520	520	520	520	520	520
Retained Earnings (Accumulated Loss)	34	32	29	25	17	12	10
Accumulated Other Comprehensive Income (Loss)	0	0	0	0	0	0	0
Reserves	979	994	1,035	1,052	1,078	1,100	1,115
Other Equity	0	0	0	0	0	0	0
Total Equity	**1,533**	**1,545**	**1,584**	**1,597**	**1,615**	**1,632**	**1,644**

Sources: Eurofima, Moody's Investors Service

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Exhibit 21
Income statement

Income Statement, CHF Millions	2012	2013	2014	2015	2016	2017	2018
Net Interest Income	**27**	**27**	**25**	**22**	**17**	**17**	**17**
Interest Income	1,267	1,152	959	784	692	612	636
Interest Expense	1,240	1,125	934	763	675	595	619
Net Non-Interest Income	**15**	**18**	**16**	**13**	**16**	**11**	**9**
Net Commissions/Fees Income	15	15	13	11	11	11	11
Income from Equity Investments	0	0	0	0	0	0	0
Other Income	1	4	3	1	5	0	-2
Other Operating Expenses	**9**	**11**	**8**	**6**	**12**	**12**	**10**
Administrative, General, Staff	8	10	8	5	11	11	10
Grants & Programs	0	0	0	0	0	0	0
Other Expenses	1	1	1	1	1	1	0
Pre-Provision Income	**33**	**34**	**33**	**29**	**21**	**17**	**16**
Loan Loss Provisions (Release)	0	0	0	0	0	0	0
Net Income (Loss)	**33**	**34**	**33**	**29**	**21**	**17**	**16**
Other Accounting Adjustments and Comprehensive Income	0	0	0	0	0	0	0
Comprehensive Income (Loss)	**33**	**34**	**33**	**29**	**21**	**17**	**16**

Sources: Eurofima, Moody's Investors Service

Exhibit 22
Eurofima

Financial Ratios	2012	2013	2014	2015	2016	2017	2018
Capital Adequacy, %							
DRA / Usable Equity	1,470.6	1,354.5	1,153.5	971.1	890.5	841.4	686.9
Development Assets Credit Quality (Year-End)	--	--	--	--	--	--	aa
Non-Performing Assets / DRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Return On Average Assets	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Net Interest Margin	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Liquidity, %							
Quality of Funding Score (Year-End)	--	--	--	--	--	--	aa
Liquid Assets / ST Debt + CMLTD	150.3	113.1	113.2	104.4	122.9	150.7	155.4
Liquid Assets / Total Debt	14.8	16.6	18.5	19.4	19.7	24.2	31.8
Liquid Assets / Total Assets	13.4	14.8	16.5	17.2	17.3	21.4	28.0
Strength of Member Support, %							
Weighted Average Shareholder Rating (Year-End)	A2	A2	A2	A2	A2	A2	A2
Callable Capital / Gross Debt	7.3	8.4	8.9	10.3	11.3	11.8	13.3
Callable Capital (CC) of Baa3-Aaa Members/Total CC	92.7	92.3	92.4	92.5	90.5	98.2	96.3

Sources: Eurofima, Moody's Investors Service

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Moody's related publications

- **Credit Opinion**: Eurofima – Aa2 Stable: Regular update, 23 July 2019
- **Issuer Comment**: Eurofima – Aa2 stable: Annual credit analysis, 31 October 2019
- **Rating Action:** Moody's downgrades Eurofima's rating to Aa2 and assigns stable outlook, 12 October 2019
- **Rating Methodology**: Multilateral Development Banks and Other Supranational Entities, 25 June 2019

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
- Eurofima's webpage

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Endnotes

1 The numerator is development-related assets (gross loans, equity investments and guarantees extended as part of the policy mandate of a multilateral development bank) and treasury assets rated A3 and lower, and the denominator is usable equity.

2 Private-sector involvement (PSI) engages the private sector in write-downs of sovereign debt.

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