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6 October 2017

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RATINGS

Eurofima

	Rating	Outlook
Long-term Issuer	Aa1	STA
Short-term Issuer	P-1	STA
Senior Unsecured	Aa1	STA

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Eurofima – Aa1 stable

Annual credit analysis

OVERVIEW AND OUTLOOK

Eurofima's (Aa1 stable) credit strengths include its strong asset quality: as of the end of 2016, 64% of its loan book was rated Aa or higher, above the level at the end of 2015. 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. Furthermore, the organisation's risk management framework is prudent and the level of supervision under which it operates is adequate. In particular, we regard Eurofima's deleveraging and de-risking strategy as a credit strength. Shareholders' capacity to extend support, mainly in the form of off-balance-sheet commitments, also supports its credit profile. This support is reflected in the high weighted median rating of its shareholders (Aa2) which, while lower than in previous years, is one of the highest in our multilateral development bank (MDB) rated universe. Shareholders are incentivised to offer support, as all borrowers are also shareholders.

Credit challenges include very high leverage compared with peers. For example, Eurofima's debt to usable equity ratio stood at 1,139.7% in 2016: despite declining recently, the ratio is significantly above the Aa-rated median of around 110%. As a result, Eurofima's asset coverage ratio – which measures usable equity against total loans outstanding, equity investments and risk-weighted liquid assets – of 11.2% in 2016 is among the lowest of all Moody's-rated MDBs. In addition, the contractual support of shareholders covers only a relatively small portion of its debt obligations. Finally, the multiple and sizeable obligations of Eurofima's largest shareholders to other MDBs could constrain extraordinary support and may affect priority of support in a crisis scenario.

The outlook on the rating is stable, supported by Eurofima's de-risking strategy, which over time should lead to reduced leverage, as well as a strengthening liquidity position. 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 arise 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 strength of member support, the three main analytical factors in Moody's Supranational Bond Rating methodology.

Organisational structure and strategy

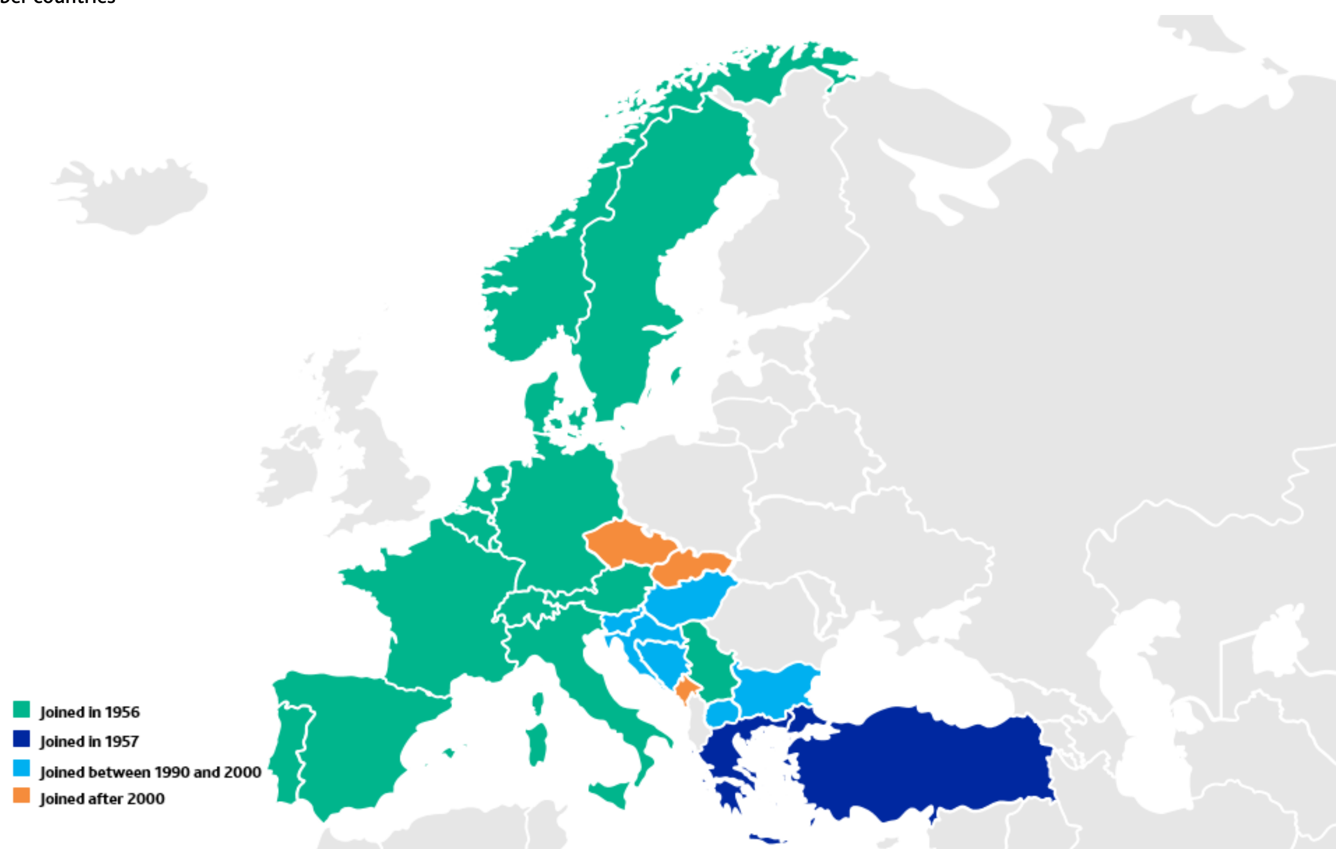
Eurofima is a supranational organisation established by an international treaty (referred to as the 'Convention') ratified by 25 European countries. Its mission consists of providing railway companies in signatory countries with competitive funding to renew or modernise their rolling stock. In common with other supranational organisations, it 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, which joined in October 2006. To qualify for membership, a state must be a member of the International Transport Forum. If applicant states do not fulfil this condition, all existing members must approve their applications.

Exhibit 1

Eurofima was established in 1956 by 14 members and has been expanding ever since

Member countries



Source: Eurofima, Moody's Investors Service

Eurofima's Convention, Articles of Association (statutes) and, in a subsidiary manner, the laws of the Swiss Confederation, where its headquarters are based, govern the organisation. Any change to the Convention 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 while holding the title to, or securing an interest in, 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 on payment of the final contract instalment.

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. An independent external auditor audits the 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. The organisation's audit and risk committee supports the board in its comprehensive supervisory role in respect of financial control, risk control, audit and compliance management.

Exhibit 2
Eurofima's organisational structure

Source: Eurofima

Fourth Railway Package could create new lending opportunities, but impact remains uncertain

While not subject to direct regulation, Eurofima's operations are affected by changes in the regulation of the railway sector by the European Union (EU, Aaa stable). Notably, 2016 marked an important milestone for the sector as the European Commission (EC) and European Parliament approved the Fourth Railway Package, which constitutes the final step towards a Single European Railway Area. According to the EC, the new legislation's overarching goal is to revitalise the rail sector and make it more competitive vis-à-vis other modes of transport.

The package consist of a market and a technical pillar. The market pillar is designed to complete the process of gradual market opening by, among other actions: 1) establishing the general right for railway undertakings established in one member state to operate all types of passenger services in any part of the EU; 2) laying down rules aimed at improving impartiality in the governance of railway infrastructure; and 3) preventing discrimination and introducing the principle of mandatory tendering for public service contracts in rail. The latter is designed to boost the railway sector's competitiveness by significantly reducing costs and also the administrative burden for railway undertakings seeking to operate across Europe.

We believe the approval of the Fourth Railway Package supports Eurofima's credit profile because it highlights the railway sector's increasing importance in the EU. This should also support Eurofima's role as an important source of financing for the sector. We also anticipate that the Fourth Railway Package's incorporation into member states' laws may increase financing requirements, including to modernise public railways, creating new lending opportunities for Eurofima. However, it remains unclear whether Eurofima's financial

profile will enable it to respond to an eventual increase in financing demand, given its continued de-leveraging. Furthermore, these future lending opportunities will need to be aligned with Eurofima's public mandate.

Nevertheless, we note that full implementation of the approved laws will be slow and incremental, as evidenced by the slow pace of previous market reforms in this sector. For example, while the technical pillar is expected to be fully incorporated into member states' laws by 2020, including the opening of domestic rail passenger markets, competitive bidding, which forms part of the market pillar, would only be likely to come into force from 2023. As such, any credit impact will most likely not materialise in our three-to-five-year rating horizon.

Recent change in management not expected to lead to policy changes

On 10 August 2017, Eurofima's board announced the appointment of two members of the current board as successors to the management team that resigned earlier in the year. Alfred Buder, the former head of group finance at OeBB (Austrian Railways, Aa1 stable), will take over as chief executive officer from 1 December 2017, while Harry Mueller, currently head of Treasury at SBB (Swiss Railways), will join Eurofima as chief operating officer on 1 January 2018.

As the new management team has been recruited from Eurofima's own board of directors, we do not expect the change to significantly affect Eurofima's policies or broader strategy, particularly in respect of current efforts to reduce its financial leverage. We also note that the handover process will last for almost six months, further assuring the continuity of Eurofima's policies and operations.

CREDIT PROFILE

Our determination of a supranational's rating is based on consideration of three rating factors: capital adequacy, liquidity, and strength of member support. For multilateral development banks, the first two factors combine to form the assessment of intrinsic financial strength, which provides a preliminary rating range. The strength of member support can provide uplift to the preliminary rating range. For more information, please see our Supranational Bond Rating methodology.

Capital adequacy: High

Factor 1

Scale	Very High	High	Medium	Low	Very Low

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 degree to which the institution is leveraged and the risk that these assets could result in capital losses.

We assess Eurofima's capital adequacy as "High", as reflected by its strong asset quality, which in turn mitigates its substantial leverage. We expect the organisation to continue to reduce the size of its balance sheet, though the extent to which it can internally deleverage (or increase the relative size of its usable equity) is limited because of its low capacity to generate profit, a typical feature of MDBs.

Asset quality remains very high despite eroding during euro area crisis

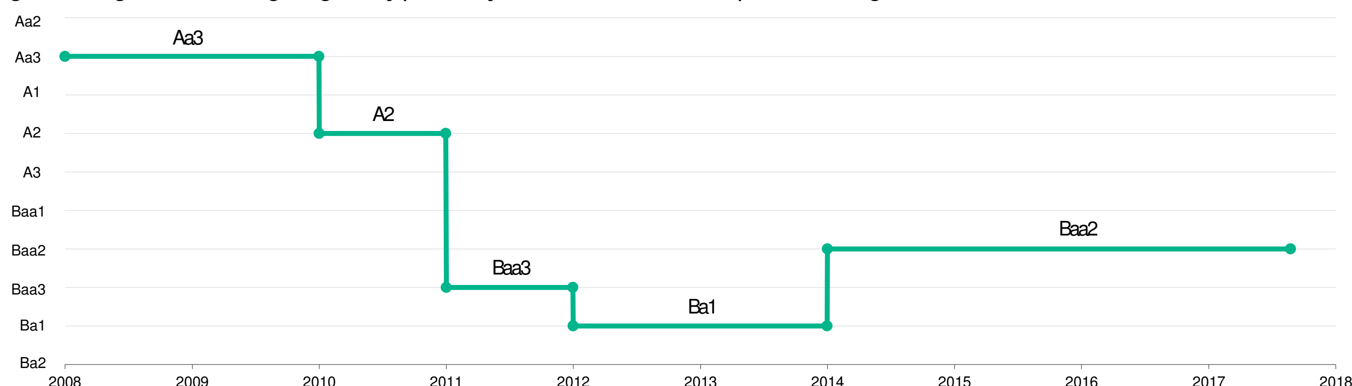
Eurofima finances up to 95% of the estimated total value of contracted equipment in each of its railway projects. Equipment-financing contracts represent its largest asset class, accounting for nearly 70% of total assets, or CHF14.4 billion as of the end of 2016. The remaining portion of its asset pool is divided between liquid assets (17% of total assets) and derivative financial instruments (14% of total assets). In line with the reduction in the size of the organisation's loan book and its deleveraging strategy, equipment-financing contracts shrank by 7.3% in 2016.

In terms of credit risk, Eurofima's weighted average borrower rating was Baa2 as of the end of 2016, unchanged from recent years (see Exhibit 3). The credit risk present in Eurofima's loan portfolio increased in the years following the European debt crisis, but stabilised recently after rating upgrades for some euro area sovereigns and a reduction in Eurofima's non-investment-grade exposure. A revision of the organisation's strategy in 2009 prioritising a further reduction in lending risks has been behind the progressive reduction in its exposure to non-investment-grade countries. This exposure stood at CHF754.2 million (5.2% of its loan book) as of the end of 2016, down from CHF992.2 million (6.4%) in December 2015 and an average CHF1.9 billion (9.4%) between 2010 and 2014.

Exhibit 3

Borrower quality deteriorated in the aftermath of the euro area crisis

Weighted average borrower rating, weighted by probability of default associated with particular rating levels



Source: Eurofima, Moody's Investors Service

No NPLs since the organisation's inception in 1956 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. Nevertheless, we note that its preferred creditor status was most recently upheld during the restructuring of Greek debt held by the private sector which was applied to the Greek Railway Company,[1] with Eurofima's loan excluded from this programme.

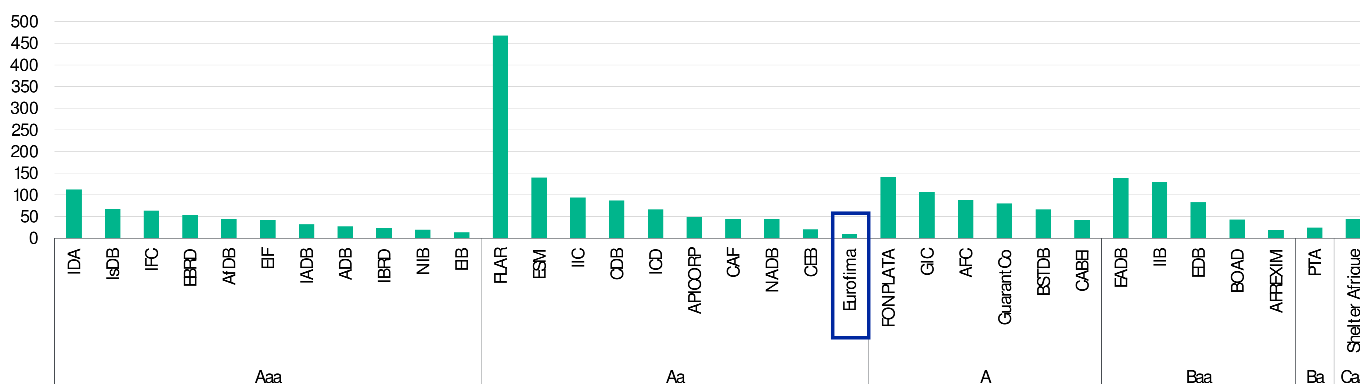
Loan collateralisation partly mitigates weak capital position

Eurofima's asset coverage ratio (ACR), which measures usable equity against total loans outstanding, equity investments and risk-weighted liquid assets, increased to 11.2% at the end of 2016 versus 10.2% at the end of 2015, driven mainly by a fall in the size of the organisation's loan portfolio. However, despite a steady improvement in the ACR from 2008, the ratio remains one of the lowest among all Moody's-rated MDBs (see Exhibit 4).

Exhibit 4

Eurofima exhibits the lowest asset coverage ratio in its rating category and in Moody's rated universe

Asset coverage ratio: usable equity/(loans + equity operations + risk-weighted treasury assets), three-year average



Source: Eurofima, Moody's Investors Service

Eurofima's low equity level relative to assets that can incur losses is mitigated by the fact that it holds the title to the equipment it finances until the financing is completely reimbursed. However, this systematic collateralisation of loans by rolling stock enhances asset quality only marginally. According to a report commissioned by Eurofima from an independent strategic consultant, the "orderly liquidation value" of existing collateral represents around 83% of its fair market value, which is relatively close to book value.[2] The process of risk evaluation takes technical features and standards of financed projects into account.

While the collateralisation of loans by rolling stock broadly supports Eurofima's asset quality, by increasing the incentive for borrowers to honour their financial obligations towards the organisation, we choose not to provide an uplift to our assessment of Eurofima's capital adequacy. In particular, in line with the Basel III framework, we would not recognise physical assets collaterals to be asset quality-enhancing unless they have a liquid secondary market and their value is certified. It is not clear that these conditions are met in Eurofima's case. Notably, the market for such collateral is entirely over-the-counter and the actual seizure of a defaulting railway's rolling stock is difficult to assess, given that it has never been tested by Eurofima.

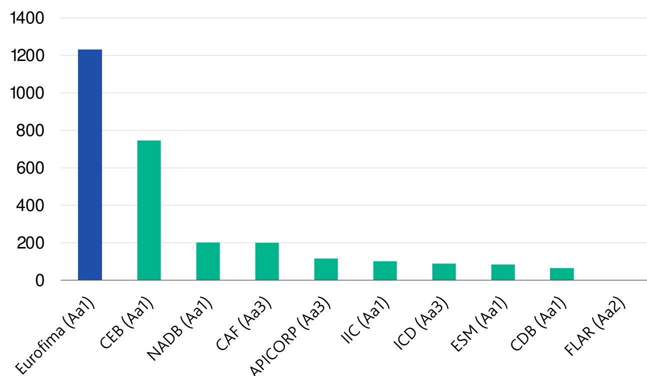
Leverage is substantial and will remain so, despite its downward trend

Debt as a percentage of usable equity, our key measure for leverage, stood at 1,139.7% at the end of 2016. Despite declining since 2009, this percentage remains particularly high and far exceeds all other Moody's-rated MDBs (see Exhibit 5). Eurofima's CHF1.6 billion usable equity coverage of non-investment-grade exposure in its loan portfolio improved significantly to 214% as of December 2016 from 161% the previous year. Investment-grade-rated shareholders represent a high 93% of Eurofima's CHF2.6 billion of subscribed capital, while paid-in capital represents only 20%. Following recent amendments to the organisation's statutes, the board of directors can request callable capital at any time at its discretion (see F3: Strength of member support for more detail).[3]

Exhibit 5

Eurofima's leverage is the highest in our rated universe

Debt as % of usable equity, 3-year average, Aa-rated MDBs

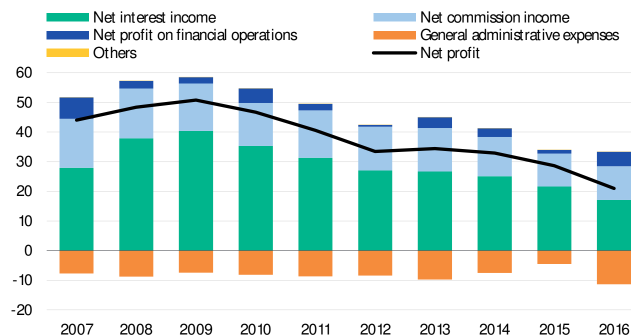


Source: MDB financial statements, Moody's Investors Service

Exhibit 6

Net profit has fallen in line with the decline in the loan portfolio

Net income breakdown, CHF million



Source: Eurofima, Moody's Investors Service

From 2009, Eurofima adjusted its lending policies to limit its exposure to non-investment-grade countries and strengthen its capitalisation and liquidity ratios.[4] As a result, outstanding equipment financing fell by nearly 60% between 2008 and 2016. Eurofima has also trimmed its balance sheet, with borrowing requirements trending downwards and net new borrowing remaining negative (see Exhibit 7).

Nevertheless, despite these efforts as part of the organisation's deleveraging strategy, we expect the convergence of Eurofima's substantial leverage to levels more in line with those of Aaa and Aa-rated MDBs (median of around 260%) to be slow.

Limited capacity to generate high profits to improve usable equity

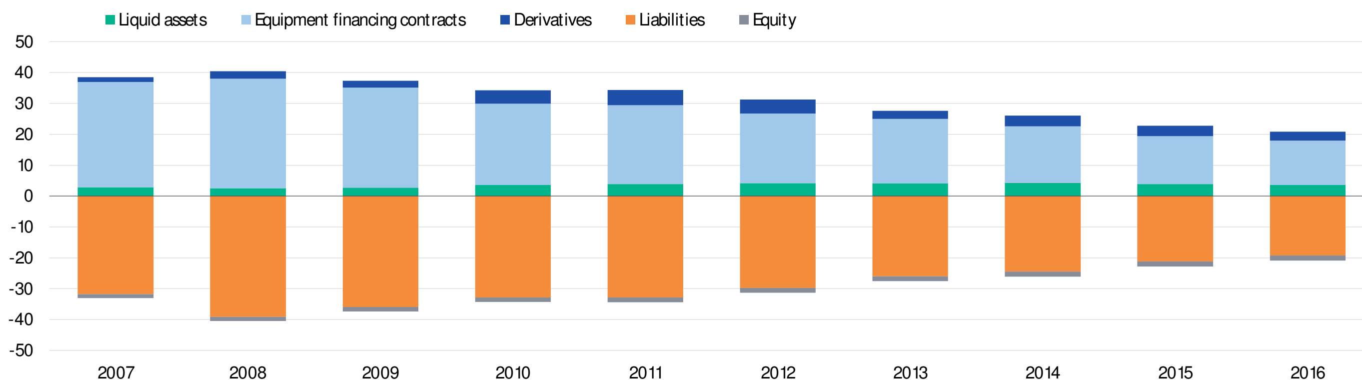
Eurofima's mandate to obtain the lowest financing costs possible for its shareholder railways has historically led to low levels of profitability, a typical feature of MDBs. Despite a change of pricing policy in 2011, the very low lending margins of its pre-existing loan portfolio have in effect limited income derived from on-lending. In addition, earnings from Eurofima's investment portfolio, which constitutes its second main source of income, have faced constraints from internal investment rules, which target very high credit quality investment, and the small overall volume of invested funds, as these investments are primarily used for liquidity management.

In 2016, net profit was CHF21 million, 27% lower than a year earlier due to falling net interest resulting from a decline in loan portfolio size and low interest rate environment. Contrary to the previous year, an increase in general administrative expenses also contributed to the decline (see Exhibit 6).

We expect Eurofima's risk-reduction strategy to continue to constrain profitability over the medium-term rating horizon. Lending limits in place between 2011 and 2016 helped curb lending by restricting loans to weaker railway companies, thereby further reducing commission income. Restricted lending to some weaker railway companies is still in place. At the same time, increased commission rates should only partially offset this fall in commission income.

As part of its consolidation strategy, Eurofima stopped paying dividends in 2009. As a result, it has consistently allocated annual profits to its capital reserves, helping to support usable equity. Equity reached CHF1.615 billion as of the end of 2016, up from CHF1.440 billion as of the end of 2010. In light of its constrained profitability, and assuming that annual profits continue to be earmarked to strengthen usable equity, usable equity is expected to only increase gradually over the next several years.

Exhibit 7
Eurofima continues with its de-leveraging and de-risking strategy
CHF billion



Source: Eurofima, Moody's Investors Service

Liquidity: Very high

Factor 2

A financial institution's liquidity is important in determining its shock absorption capacity. We evaluate the extent to which liquid assets cover debt service requirements and the stability of the institution's access to funding.

Our "Very High" assessment of Eurofima's liquidity reflects: 1) the organisation's prudent liquidity policy; 2) the strict back-to-back asset liability management of its core lending businesses; and 3) its diversified sources of funding.

Robust liquidity position underpinned by prudent policies

Liquidity plays an important role in the credit assessment of MDBs because MDBs – with the exception of the European Investment Bank (Aaa stable) – 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 those policies, the organisation maintains liquidity sufficient to meet all operating and refinancing requirements for the ensuing 12-month period. In doing so, Eurofima applies a 100% expected loss to all counterparties rated below A3 in a stressed scenario and assumes 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. The organisation has no maturity mismatches, and thus no funding gap, assuming that borrowers reimburse on time. Eurofima hedges currency risks systematically using swap transactions (see Exhibit 8). Similarly, it uses interest-rate swap transactions to hedge interest-rate risks.

Exhibit 8

Eurofima has no open foreign exchange positions

Assets and liabilities by currency as of the end of 2016

	EUR	USD	AUD	JPY	CAD	Other	Total
Assets	4444	4778	2651	648	497	302	13321
Liquid assets	850	286	8	118	0	41	1303
Equipment financing contracts	10119	1394	0	0	0	0	11513
Derivative financial instruments	-6529	3099	2643	530	497	261	501
Accrued income and prepaid expenses	3	0	0	0	0	0	3
Liabilities	4444	4778	2651	648	497	302	13320
Borrowings	4469	4469	2791	883	497	301	13410
Derivative financial instruments	-91	314	-139	-235	0	0	-151
Reserve for available-for-sale financial instruments	6	-5	0	0	0	0	2
Net currency position	0	0	0	0	0	0	1

Source: Eurofima, Moody's Investors Service

Eurofima further strengthened its liquidity management framework in 2016 through gaining access to a repo trading platform, replacing a CHF300 million credit facility with a single counterparty. Since January 2017 the organization has also been gradually amending its collateral arrangements for derivatives exposures to allow daily valuation and bilateral exchange of collateral in the form of cash. To date, Eurofima upgraded its collateral agreements with 11 out of 20 derivative counterparties, and it is planned that more counterparties will be added in the near future.

Treasury portfolio is highly liquid and highly rated

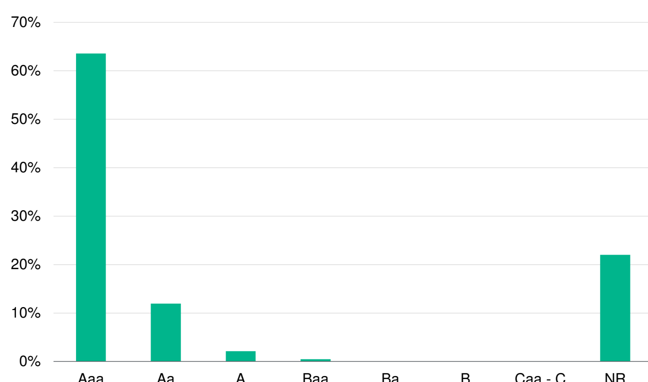
To assess the liquidity position of an MDB we analyse the debt-service coverage ratio (DSCR), which is the sum of the stock of short-term and currently maturing long-term debt in relation to the stock of discounted liquid assets. Although Eurofima's debt-service coverage ratio deteriorated to 83.4% in 2016 from 67.0% in 2012, and is well above the median of our rated-universe (35.2%), we still assess Eurofima's overall liquidity position as “Very High” according to our supranational bond rating methodology.

Furthermore, Eurofima's treasury portfolio is very highly rated: 64% of the organisation's liquid assets are invested in Aaa-rated securities, 12% in Aa-rated securities and 2% in A-rated securities (see Exhibit 9). The remaining 22% is allocated to the “non-rated” category, which in 2016 consisted of fixed-income instruments issued by Swiss cantons and cities.

Exhibit 9

Eurofima's liquid assets are highly rated

% of total

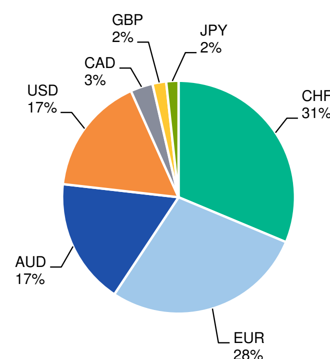


Source: Eurofima, Moody's Investors Service

Exhibit 10

Eurofima's outstanding bonds are denominated in seven different currencies

% of total



Source: Eurofima, Moody's Investors Service

Very high bond implied rating and global investor base demonstrate Eurofima's strong ability to raise funds

We measure the stability of Eurofima's access to funding by looking at market-based measures of default risk, specifically the bond-implied rating. The organisation's average bond-implied rating for the past seven years has been Aa2, reflecting Eurofima's stable and uninterrupted access to funding. That said, Eurofima's bond implied rating of Aa2 remains below our issuer rating of Aa1, implying the extra premium required by investors to hold Eurofima's bonds.

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 2016, Eurofima's outstanding bonds was denominated in seven different currencies, with the largest share made up of bond issuances in Swiss francs and euros, followed by Australian and US dollars (see Exhibit 10). Due to its frequent and regular issuance on those markets, Eurofima is able to maintain very low costs of financing and attracts very high-quality investors, such as central banks and fund managers.

For example, in 2016 Eurofima raised the equivalent of CHF1.1 billion on euro and Australian dollar markets. In April that year, it issued a new seven-year, €600 million bond in fixed-rate format that was subsequently tapped twice, bringing the amount outstanding to €800 million. Eurofima was also very active on the Kangaroo market[5], including a new 2027 bond that was tapped several times during 2016. Finally, Eurofima in April 2017 issued a new two-year, $500 million floating rate note, which was almost entirely bought by central banks and official institutions (86%). The remainder was allocated to fund managers and banks.

Strength of member support: High

Factor 3

Scale Very High High Medium Low Very Low

Contractual support primarily manifests itself in the callable capital pledge, which is a form of emergency support. Extraordinary support is a function of shareholders' ability and willingness to support the institution in ways other than callable capital. Strength of member support can increase the preliminary rating range determined by combining factors 1 and 2 by as many as three scores.

Eurofima receives a score of "High" in respect of our methodological assessment of strength of member support. The score balances the very limited size of its contractual support relative to its debt obligations, and our moderate assessment of: 1) the willingness of shareholders to extend support in case of need; and 2) the very high ability of shareholders to provide support, as reflected in a weighted median shareholder rating of Aa2.

Discounted callable capital covers a comparatively limited proportion of debt

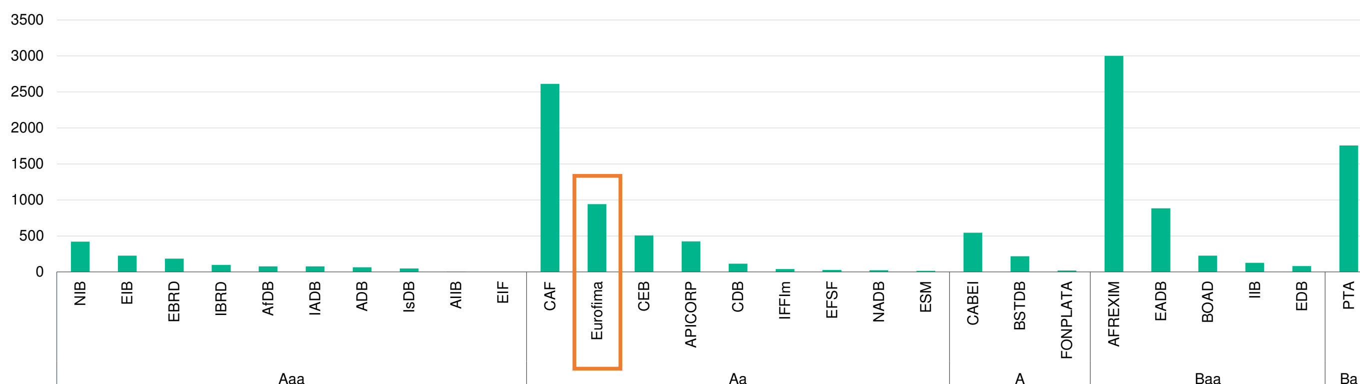
Our "Low" assessment of the size of contractual support (i.e. off-balance-sheet support) primarily reflects the very high ratio of debt to discounted callable capital, which at 941.4% in 2016 is one of the highest in our rated universe, after African Export-Import Bank (AFREXIM, Baa1 stable), Corporacion Andina de Fomento (CAF, Aa3 stable) and Eastern and Southern African Trade Bank (PTA, Ba1 positive) (see Exhibit 11).

The high score reflects Eurofima's substantial leverage, though the callable capital accounts for 80% of total subscribed capital. As for the leverage ratio, the debt coverage of callable capital has been decreasing over the past two years as a result of Eurofima's de-leveraging strategy, which has reduced the volume of its borrowing by 46% since its peak in 2008. 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.

Exhibit 11

Ratio of debt to discounted callable capital is high as a result of Eurofima's substantial leverage

Debt/discounted callable capital, 2016



Source: Eurofima, Moody's Investors Service

Nevertheless, the assumption of joint and several support embedded in Eurofima's statute via a guarantee mechanism strengthens our assessment of contractual support. In the event of a railway company failing to repay its debt, in parallel to the seizure of the relevant rolling stock and use of the guarantee reserve, Eurofima will also call on state guarantees. This functions as a form of double guarantee: 1) each member state is either directly liable for guarantees the obligations of its railway under the equipment financing contracts; and 2) each member state is either directly liable for guarantees the obligations of its railway in the capacity of that railway as a Eurofima shareholder.

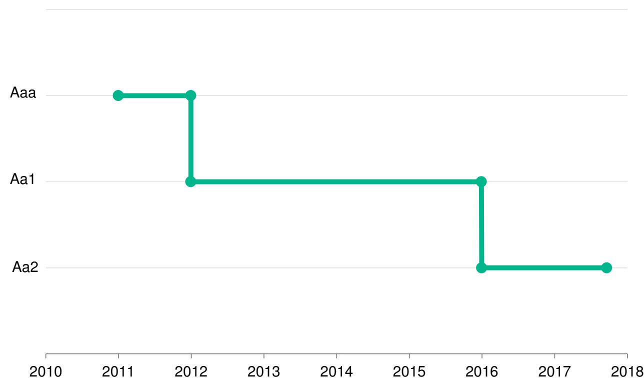
This guarantee mechanism enhances the callable capital mechanism, increasing the size of support. For example, in the event of a default by one of the weaker borrowers, other shareholders, such as Germany (Aaa stable) or France (Aa2 stable), would have to cover the losses in proportion to their capital key. Eurofima may also call the shareholder guarantee, provided that a railway and its guaranteeing member state have not discharged obligations under equipment financing contracts, and that the guarantee reserve is not sufficient to cover the loss resulting from a missed payment. Under this subsidiary guarantee, each member guarantees the fulfilment of all equipment-financing contracts in proportion to its participation in Eurofima's share capital, and up to a maximum amount equal to its participation in Eurofima's subscribed share capital.

Shareholder ability to support in case of need is very high

Despite declining from Aaa in 2010, Eurofima's weighted median shareholder rating of Aa2 is still one of the highest in our MDB rating universe. According to this metric, Eurofima is on a par with supranationals such as the European Union (Aaa stable) and the European Stability Mechanism (Aa1 stable), and just below the European Bank for Reconstruction and Development (Aaa stable), whose average shareholder rating is Aa1.

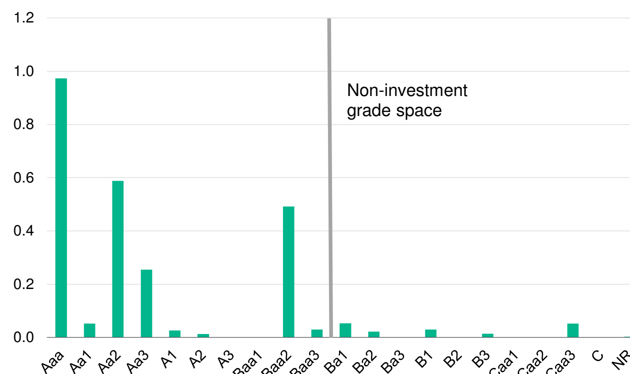
Moreover, Aaa and Aa-rated sovereigns account for 72% of subscribed capital, while non-investment-grade and non-rated sovereigns represent only 7% (see Exhibit 13). The assessment of Eurofima's shareholder support (in the form of callable capital) benefits not only from the high credit quality of member countries, but also from the higher than average likelihood of support from member countries if necessary.

Exhibit 12
Shareholder ability to support is very high, but has decreased
Weighted median average rating



Source: Eurofima, Moody's Investors Service

Exhibit 13
Bulk of subscribed capital comes from investment-grade members
Subscribed capital by rating, CHF billion



Source: MDBs' financial statements, Moody's Investors Service

Very high propensity to support reflected by expanding membership and socio-economic importance to members

Gauging the willingness of members to support Eurofima involves an assessment of potential stand-alone support from members. This assessment consists of two elements, namely members' propensity and priority to provide support in case of need.

The propensity of members to provide support is assessed through qualitative factors, such as their sense of ownership of the organisation; the history of general capital increases over the past 10 years; political links and reputational risk; the organisation's economic importance to its members; and the organisation's track record of fulfilling its mandate.

Members' propensity to provide support is exemplified by the organisation's expanding membership. Since its establishment in 1956, 11 new members have joined. The most recent was Montenegro, which joined in 2006, following the Czech Republic and Slovakia in 2002 and 2000 respectively. Propensity to provide support in case of need is also demonstrated by the alignment of Eurofima's public mission to support the development of passenger rail transport with its members' commitment to reduce greenhouse gas emissions. Research by the International Energy Agency notes that the transportation sector accounts for nearly 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, according to the International Union of Railways.

Priority to provide support is low amid less vital role relative to other European MDBs, but small size works in its favour

Gauging priority of support involves an assessment of the priority that member states afford Eurofima in an extreme situation of systemic stress in which all supranational institutions face financial challenges and request financial assistance simultaneously. In cases where a shareholder participates in more than one supranational institution, we assess the order in which it is likely to distribute its resources.

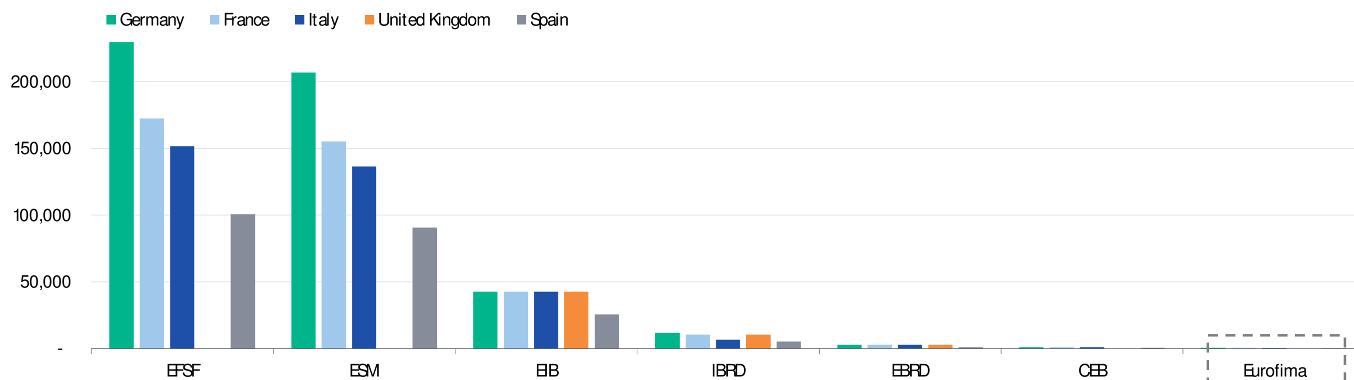
According to this calculation, Eurofima's priority to support is "Very Low", reflecting its less vital role relative to other MDBs in which its member countries participate, such as the European Stability Mechanism (ESM, Aa1 stable) and the European Financial Stability Facility (EFSF, (P)Aa1 stable) (see Exhibit 14). Both these entities play an important role in euro area financial stability, and thus enjoy strong political support from euro area governments. Nevertheless, given Eurofima's very small scale relative to other multilateral institutions to which its members subscribe and the very high creditworthiness of its shareholders, we expect that shareholders would be in a position to provide the financial support that Eurofima needs in the event of an emergency.

As sovereigns guarantee the liabilities of their railways, they are the shareholders called on to support the institution in case of need, according to our methodology. However, in Eurofima's case, the railways are the direct shareholders. 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.

Exhibit 14

Commitments to Eurofima are marginal compared with other MDBs

Commitments of subscribed capital by member countries to other institutions, $ million, 2016



Source: MDB financial statements, Moody's Investors Service

Low member concentration further increases strength of member support

Eurofima's member concentration, measured using the Herfindahl-Hirschman Index, is one of the lowest in our rated universe (0.14), reducing the risk that additional support may not be provided in times of stress.[6] This is a very important mitigant, as the geographical dispersion of member countries is low (the membership base has a European concentration) and there is practically no diversification in the loan portfolio (all loans are provided to the railway sector).

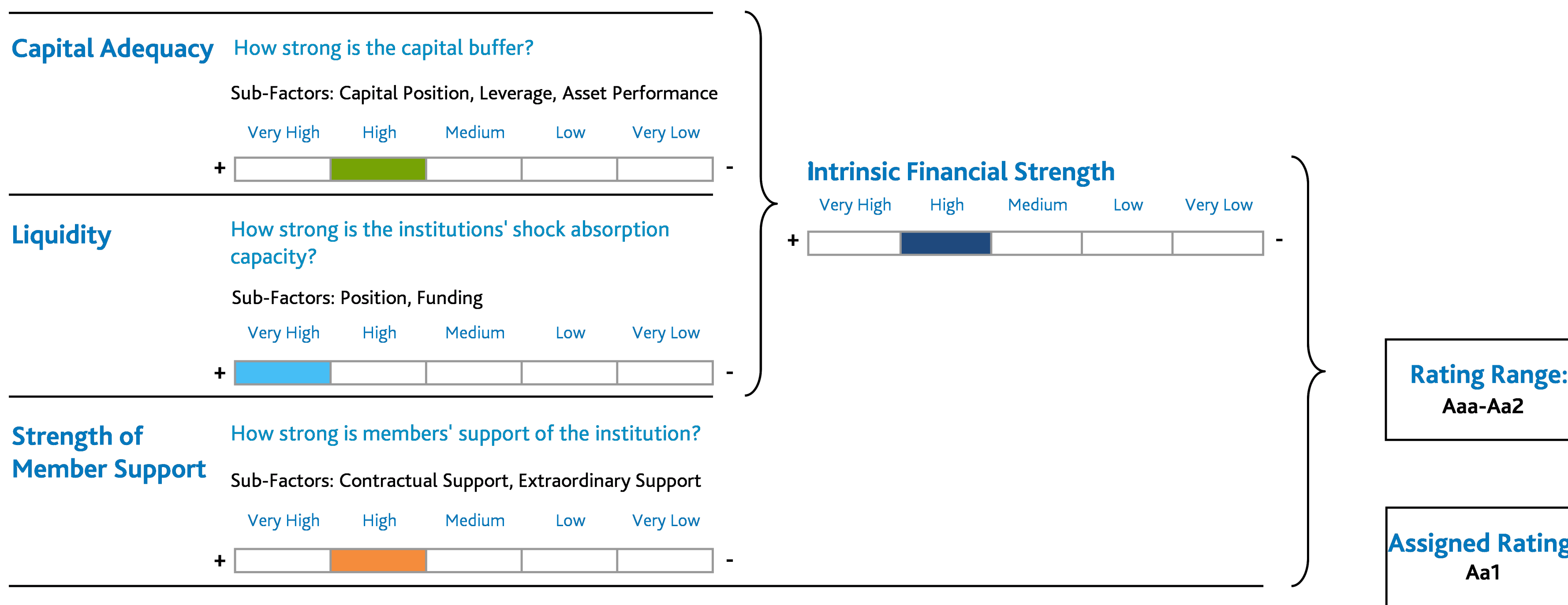
However, Eurofima's business model, according to which all borrowers are shareholders, results in an important default correlation between shareholders and borrowers. In the event that borrowers encounter difficulties in servicing their loan obligations to Eurofima, they will be also less likely to be able to provide any kind of support to the organisation, for which we make a slight downward adjustment for our assessment of overall member support. Nevertheless, the very high credit quality of the majority of shareholders and borrowers partly mitigates this risk. These borrowers are unlikely to default on the amount greater than the usable equity plus callable capital of non-defaulting shareholders.

Rating range

Combining the scores for individual factors provides an indicative rating range. While the information used to determine grid mapping is predominantly historical, our ratings incorporate expectations around future metrics and risk developments that may differ from those that the rating range implies.

Therefore, 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 Bond Rating methodology.

Exhibit 15
Supranational rating metrics: Eurofima



Source: Moody's Investors Service

Comparatives

In this section, we compare credit-relevant information about Eurofima with that from other supranationals rated by Moody's. This section provides a comparison between supranationals within the same rating range, and also the relevant credit metrics and factor scores.

We assess Eurofima's **capital adequacy** as "High", in line with Aa1-rated peers. However, Eurofima's very high leverage (the organisation's debt over usable equity is the largest in Moody's rated universe) affects capital adequacy. Eurofima's nonperforming loan ratio is very low compared with its Aa1-rated peers. We assess Eurofima's **liquidity** as "Very High", which is consistent with all but one of its Aa1-rated peers. Eurofima's **strength of member support** is "High," as is the ability of its shareholders to extend support, reflected in its Aa1 weighted median shareholder rating. Both values are broadly in line with Eurofima's Aa1-rated peers.

Exhibit 16

Eurofima's key peers

	Year	Eurofima	Council of Europe Development Bank (CEB)	European Investment Bank (EIB)	African Development Bank (AfDB)	Caribbean Development Bank (CDB)	North American Development Bank (NADB)	Aa Median
Rating/Outlook		Aa1/STA	Aa1/STA	Aaa/STA	Aaa/STA	Aa1/STA	Aa1/STA	--
Total Assets (US$ million)	2016	21,272	26,988	618,153	55,378	1,599	1,813	6,472
Factor 1		**High**	**Very High**	**Very High**	**High**	**Very High**	**High**	**--**
Usable Equity/Gross Loans Outstanding + Equity Operations (%)[1]	2016	11.2	20.5	14.5	41.1	88.4	42.8	47.7
Debt/Usable Equity (%)[1]	2016	1139.7	711.1	711.6	312.5	73.0	196.1	136.2
Gross NPLs/Gross Loans Outstanding (%)[2]	2016	0.0	0.0	0.0	3.6	0.5	0.0	0.0
Factor 2		**Very High**	**Very High**	**Very High**	**Very High**	**Very High**	**High**	**--**
ST Debt + CMLTD/Liquid Assets (%)[3]	2016	81.3	36.6	96.3	32.8	1.7	1.0	22.4
Bond-Implied Ratings (Long-Term Average)	2010-2016	Aa2	Aa1	Aa1	Aa1	A3	A1	Aa3
Intrinsic Financial Strength (F1+F2)		**High**	**Very High**	**Very High**	**High**	**Very High**	**High**	**--**
Factor 3		**High**	**Medium**	**High**	**Very High**	**Very High**	**High**	**--**
Total Debt/Discounted Callable Capital (%)[4]	2016	941.4	507.2	226.0	77.9	111.9	22.0	111.9
Weighted Median Shareholder Rating (Year-End)	2016	Aa2	A2	Aa2	Ba1	Baa3	A1	A1
Rating Range (F1+F2+F3)		**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**--**

[1] Usable equity is total shareholder's equity and excludes callable capital

[2] Non performing loans

[3] Short-term debt and currently-maturing long-term debt

[4] Callable capital pledge by members rated Baa3 or higher, discounted by Moody's 30-year expected loss rates associated with ratings.

Sources: MDB financial statements, Moody's Investors Service

DATA AND REFERENCES

Rating history

Exhibit 17
Eurofima

Rating Action	Long-term Rating	Short-term Rating	Senior Unsecured	Outlook	Date
Outlook Changed				STA	06/05/2014
Rating Lowered	Aa1	P-1	Aa1		06/05/2014
Rating Affirmed	Aa1	P-1			06/05/2014
Outlook Changed				NEG	01/29/2013
Rating Affirmed	Aaa	P-1	Aaa		01/29/2013
Outlook Assigned				STA	11/15/2003
Rating Assigned	Aaa				12/21/1994
Rating Assigned		P-1			02/22/1988
Rating Assigned			Aaa		04/03/1984

Source: Moody's Investors Service

Annual statistics

Exhibit 18
Eurofima

	2010	2011	2012	2013	2014	2015	2016
Balance Sheet, CHF Millions							
Assets							
Cash & Equivalents	1,060	1,539	1,618	1,114	1,206	1,016	1,152
Securities	2,510	2,296	2,575	2,979	3,099	2,900	2,472
Derivative Assets	4,322	4,916	4,557	2,533	3,493	3,361	2,884
Net Loans	26,374	25,600	22,541	20,932	18,275	15,508	14,377
Net Equity Investments	0	0	0	0	0	0	0
Other Assets	15	16	18	19	16	16	15
Total Assets	**34,281**	**34,367**	**31,308**	**27,577**	**26,089**	**22,801**	**20,900**
Liabilities							
Borrowings	30,376	30,661	28,311	24,634	23,300	20,164	18,400
Derivative Liabilities	2,443	2,203	1,445	1,380	1,186	1,023	817
Other Liabilities	23	23	19	19	19	18	68
Total Liabilities	**32,841**	**32,886**	**29,775**	**26,032**	**24,505**	**21,205**	**19,286**
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)	47	41	34	32	29	25	17
Accumulated Other Comprehensive Income (Loss)	0	0	0	0	0	0	0
Total Equity	**1,440**	**1,480**	**1,533**	**1,545**	**1,584**	**1,597**	**1,615**

	2010	2011	2012	2013	2014	2015	2016
Income Statement, CHF Millions							
Net Interest Income	**35**	**31**	**27**	**27**	**25**	**22**	**17**
Interest Income	1,699	1,400	1,267	1,152	959	784	692
Interest Expense	1,664	1,369	1,240	1,125	934	763	675
Net Non-Interest Income	**19**	**18**	**15**	**18**	**16**	**13**	**16**
Net Commissions/Fees Income	15	16	15	15	13	11	11
Income from Equity Investments	0	0	0	0	0	0	0
Other Income	5	2	1	4	3	1	5
Other Operating Expenses	**8**	**9**	**9**	**11**	**8**	**6**	**12**
Administrative, General, Staff	8	9	8	10	8	5	11
Grants & Programs	0	0	0	0	0	0	0
Other Expenses	0	0	1	1	1	1	1
Pre-Provision Income	**47**	**41**	**33**	**34**	**33**	**29**	**21**
Loan Loss Provisions (Release)	0	0	0	0	0	0	0
Net Income (Loss)	**47**	**41**	**33**	**34**	**33**	**29**	**21**
Other Accounting Adjustments and Comprehensive Income	0	0	0	0	0	0	0
Comprehensive Income (Loss)	**47**	**41**	**33**	**34**	**33**	**29**	**21**

	2010	2011	2012	2013	2014	2015	2016
Financial Ratios							
Capital Adequacy, %							
Usable Equity / (Loans + Equity)	5.5	5.8	6.8	7.4	8.7	10.3	11.2
Debt/Usable Equity	2,109.7	2,071.1	1,847.1	1,594.0	1,470.7	1,262.7	1,139.7
Allowance For Loan Losses / Gross NPLs	--	--	--	--	--	--	--
NPL Ratio: Non-Performing Loans / Net Loans	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
Interest Coverage Ratio (X)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Liquidity, %							
St Debt + CMLTD / Liquid Assets	77.7	83.9	66.5	88.5	88.3	95.8	81.3
Bond-Implied Rating	Aa1	Aa1	A1	Aa3	Aa1	Aa2	Aa2
Liquid Assets / Total Debt	11.8	12.5	14.8	16.6	18.5	19.4	19.7
Liquid Assets / Total Assets	10.4	11.2	13.4	14.8	16.5	17.2	17.3
Strength of Member Support, %							
Callable Capital (CC) of Baa3-Aaa Members/Total CC	95.4	92.7	92.7	92.3	92.4	92.5	96.7
Total Debt/Discounted Callable Capital	1,550.9	1,615.6	1,604.8	1,326.1	1,241.4	1,073.2	941.4
Weighted Median Shareholder Rating (Year-End)	Aaa	Aaa	Aa1	Aa1	Aa1	Aa2	Aa2

Moody's related research

» **Credit Opinion**: Eurofima – Aa1 Stable: Annual Update, 4 April 2017

» **Issuer-in-Depth**: Annual Credit Analysis, 6 October 2016

» **Rating Action:** Moody's downgrades Eurofima's issuer and debt ratings to Aa1; outlook stable, 5 June 2014

» **Rating Methodology**: Supranational Bond Rating Methodology, 29 March 2017

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

» Eurofima's webpage

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Endnotes

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

2 After the cost of repossession, reconfiguration and remarketing.

3 Last capital increase was in 1996.

4 Lending rules currently cap lending to Croatia, Greece, Hungary, Italy, Portugal, Slovenia and Spain, among others. The maximum amount lendable is a variable multiple of a railway's participation in Eurofima's capital, and the multiple depends on the credit rating of the railway company's member state.

5 A Kangaroo bond is a type of foreign bond that is issued by foreign company on Australian market, denominated in Australian currency and subject to Australian law.

6 A common measure of market concentration, the Herfindahl-Hirschman Index is determined by calculating the sum of the squares of the subscribed capital of each member.

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