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RATINGS

[MDB]

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

TABLE OF CONTENTS

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Asian Development Bank - Aaa stable

Annual credit analysis

OVERVIEW AND OUTLOOK

The credit profile of the Asian Development Bank (ADB, Aaa stable) incorporates the bank's ample capital adequacy and robust asset performance, supported by demonstrated preferred creditor status. ADB has strong access to funding markets and sufficiently large liquidity buffers that assure the prompt repayment of ADB's growing financial obligations resulting from the ongoing expansion of its development activities. The bank also benefits from a large cushion of callable capital and very strong willingness and ability of global members to provide extraordinary support.

These credit strengths have been sustained through historical periods of global and regional economic stress, reflecting in part the bank's prudent financial management, including an effective risk-management framework. A fortified capital base resulting from the 2017 merger between the lending operations of the Asian Development Fund (ADF) and ADB's ordinary capital resources (OCR) will offset vulnerabilities from a concentrated loan portfolio, and continue to support a credit rating at the highest possible level.

Stable development asset credit quality reflects improving credit profiles of a number of its largest borrowers over the last two years, including India (Baa2 stable), Indonesia (Baa2 stable) and Vietnam (Ba3 stable), which partly offset ADB's larger exposures to smaller, lower-rated countries following the 2017 merger. Notwithstanding recent signs of slowing, we also expect the Asia Pacific region to sustain economic outperformance versus other regions represented by other large, regional multilateral development banks (MDBs), such as Latin America and Sub-Saharan Africa.

Credit challenges stem from (1) a concentrated loan portfolio, especially among its top ten borrowers, that exposes ADB to the effects of a severe and prolonged deterioration in borrower credit quality; and (2) larger exposures to riskier borrowers given recently enlarged mandate encompassing concessional lending.

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

Organizational structure and strategy

ADB was established in 1966 by 31 countries, with the goal of reducing poverty across Asia. During the 1960s, the bank focused much of its assistance on food production and rural development, but this focus has slowly evolved into achieving poverty reduction through inclusive environmentally sustainable growth and regional integration.

Membership has expanded to 68 countries, 49 of which are from the Asia Pacific region. Japan (A1 stable) and the US (Aaa stable) are the bank's largest shareholders, each accounting for a 15.6% stake of total subscribed capital. The next largest shareholders are China (A1 stable) at 6.4% and India at 6.3%; China is also ADB's largest borrower. The bank's president has traditionally been from Japan.

ADB provides financial assistance to its developing member countries in the form of loans, grants, guarantees, equity investments, cofinancing and debt management. It also offers technical assistance, policy dialogue and advisory services. The bank's operations are financed out of its OCR, special funds and trust funds. The bank does not aim to maximize profit, although it earns a significant net income, most of which is typically reallocated to ordinary reserves.

Our credit assessment of ADB is focused primarily on the OCR because the bank's borrowings, together with its equity, can only be used to fund OCR lending and investment and general operations. The borrowings do not directly finance activities related to either the special funds or trust funds, whose financial resources are kept separate from those available for development initiatives through the OCR. The special funds provide concessional loans, grants, cofinancing and technical assistance to low-income members.

In January 2017, ADB transferred the lending operations of the ADF (a special fund that had previously conducted the bank's concessional funding activities, similar to the International Development Association's (IDA, Aaa stable) role within the World Bank Group) and certain other assets to OCR. The merger was aimed at enhancing ADB's financial capacity in a sustainable manner through more efficient and effective management of its capital resources. ADB continues to provide concessional lending through OCR on the same terms and conditions as provided to ADF countries before the merger. The ADF has been retained as a grant-only operation.

The merger significantly increased the capital base of the OCR. Apart from the immediate expansion in equity, the merger has enabled ADB to diversify its OCR lending by expanding the pool of possible borrowers and strengthen its core mandate of poverty eradication in the region. The change did not result in any revision to the bank's shareholding structure or voting power.

In light of its enhanced lending capacity resulting from the merger, the progress made on poverty reduction (most of ADB's developing member countries have graduated to middle-income status), and the emergence of an international development agenda (as represented by the Sustainable Development Goals (SDG) and the Paris Agreement on climate change), the ADB board approved a new long-term strategy in late 2018 that became effective in 2019. Dubbed Strategy 2030, the new framework places a greater focus on meeting its members' commitments to meeting its SDG and Paris Agreement goals. It also shifted from a sector-based to an outcome-based approach – for example, instead of focusing on education, health, or infrastructure, the new priorities are expressed as addressing remaining poverty, accelerating progress on gender inequality or tackling climate change. The new strategy also emphasizes differentiated approaches to certain subsets of countries, acknowledging the wide range of needs and development challenges across the bank's membership – for example, small island developing nations have requirements that may not be suitable for fragile and conflict-affected states.

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, 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. The strength of member support is then incorporated to yield a rating range. For more information please see our Supranational Rating Methodology.

Capital adequacy score - aa3

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	**a3**
Development asset credit quality	**a**
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.

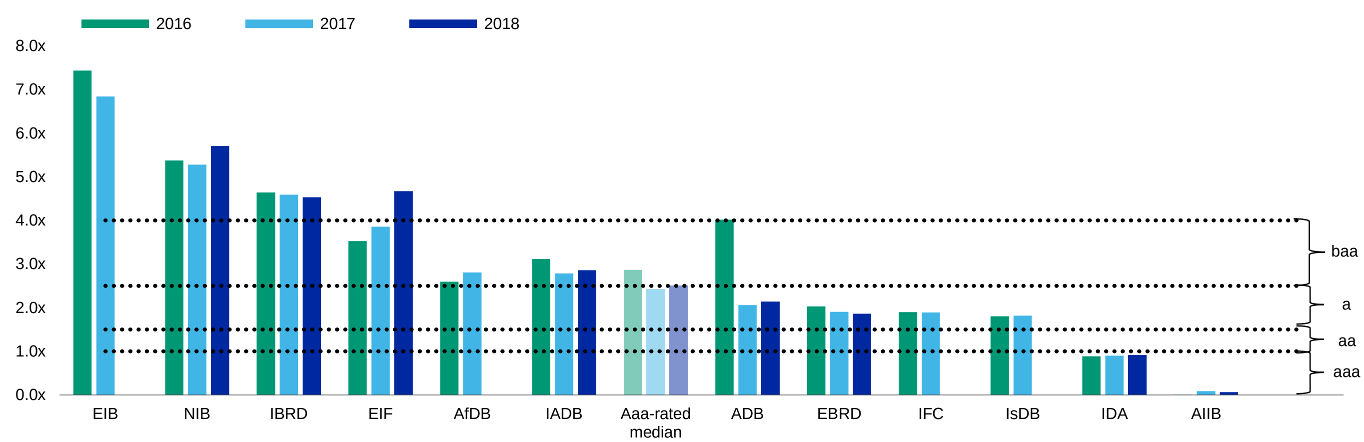
ADB's "aa3" **capital adequacy** score reflects ample capital coverage to buffer against shocks to its assets, underpinned by modest leverage and the stable underlying credit quality of its portfolio of earning assets. The bank's demonstrated preferred creditor status remains intact and has helped to keep nonperforming assets at low levels.

Capital position sub-factor score - a3

We use the leverage ratio to measure an MDB's **capital position**, comparing the size of its development-related assets (DRA) and treasury assets rated A3 and below against its usable equity. The three-year average leverage ratio of 2.7x – which maps to the scorecard-indicated outcome of baa1 for capital position – understates the strength of ADB's capital position as it incorporates the higher leverage in 2016, the last pre-merger year. After peaking at 4.0x at end-2016, ADB's leverage ratio halved and has been at 2.1x for the last two years, below the Aaa-rated median (see Exhibit 1). The improvement is due to the increase in usable equity associated with the merger, which rose to $51 billion at end-2018 from $17.2 billion. We have thus adjusted the capital position sub-factor score to a3 to reflect much stronger metrics after the merger.

Exhibit 1

ADB's leverage ratio has remained below the Aaa-rated median for the second consecutive year
(Assets/usable equity, percent)



Source: Moody's Investors Service

The ADF-OCR merger did not lead to a commensurately large rise in outstanding borrowings as concessional loans that were transferred to OCR had been funded mainly through concessional loan reflows and OCR equity, including the donor contributions transferred to reserves mentioned above. More recently, outstanding borrowings have increased ($90.5 billion in 2018 from $87.7 billion in 2017) in line with a pick-up in disbursements ($13.7 billion from $11.0 billion over the same period).

Operating income, as presented on a management reporting basis, increased 22.6% to $889 million in 2018 from $725 million the previous year, primarily driven by increased net revenue from loans and holdings in the liquidity portfolio, which also offset the impact of the increase in borrowings. The higher interest rate environment helped improve net interest margins – albeit very slightly to 1.0% in 2018 from 0.9% the previous year and an average of 0.7% between 2013-16; although the bulk of ADB's lending is conducted on a floating-rate basis and outstanding borrowings are mostly on fixed rates, the latter are typically swapped into floating rate liabilities.

Net allocable net income in 2018 was $841 million, $151 million higher than the previous year and nearly double the $488 million distribution in 2016. $499 million was allocated to the ordinary reserve, helping to sustain capital adequacy against the backdrop of the healthy expansion of its balance sheet over the previous year.

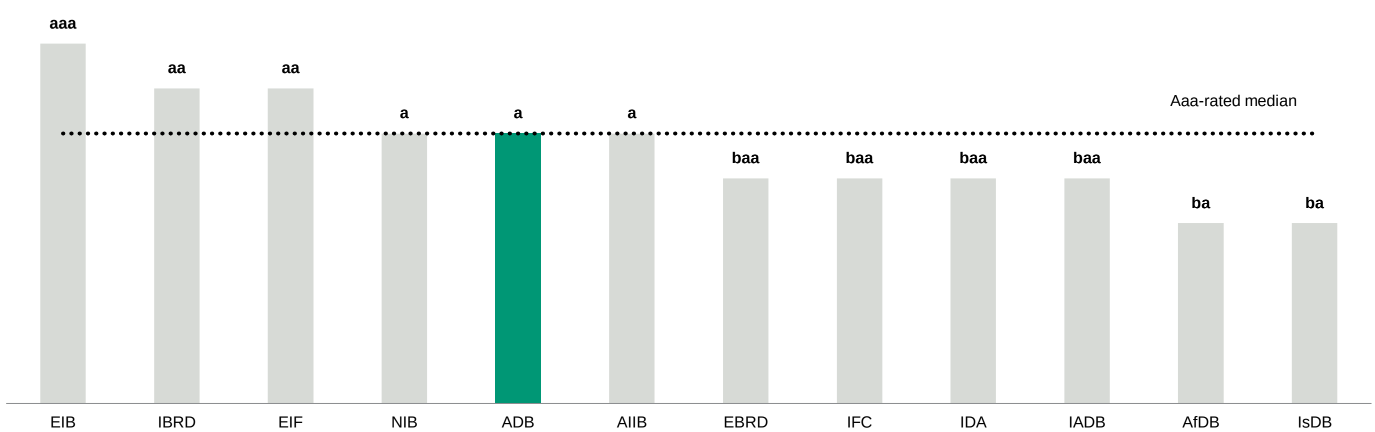
ADB's borrowing policy limits its gross outstanding borrowings to no more than the sum of callable capital of non-borrowing members, paid-in capital and reserves (including surplus). As such, the borrowing limit stood at $146 billion at the end of 2018, which left the bank with borrowing capacity – the difference between the ceiling and outstanding borrowings on an after-swap basis – of $53.4 billion; outstanding borrowings totaled 64% of the borrowing limit ceiling. We expect that borrowing capacity will be replenished through the provision of additional capital well ahead of any prospective depletion and that management's adherence to its borrowing policy will ensure a leverage ratio consistent with Aaa-rated peers.

Developing asset credit quality sub-factor score - a

ADB's **development asset credit quality (DACQ)** sub-factor score of a incorporates our assessment that the aggregate credit quality of its DRAs is stable and that its exposures are reasonably well-diversified across sectors and geographies, which is ostensibly constrained given ADB's regional focus. A low share of equity investments further bolsters ADB's DACQ, which is in line with Aaa-rated peers (see Exhibit 2).

Exhibit 2

ADB's DACQ is in line with that of the Aaa-rated median
(Development asset credit quality assessment)

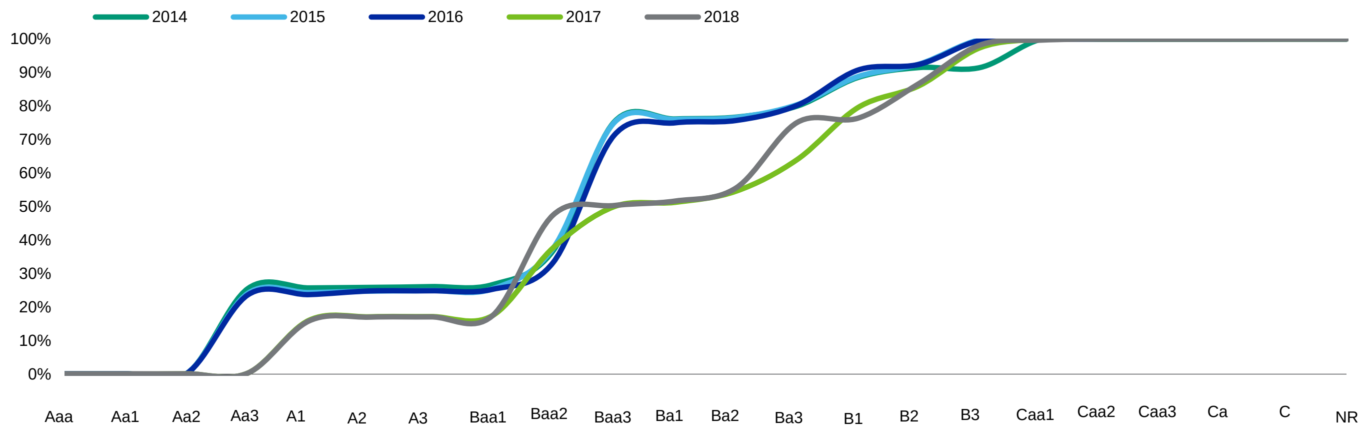


Source: Moody's Investors Service

As indicated by the weighted average borrower rating (WABR), the inherent credit risk of ADB's loan portfolio has been stable at Ba2 over the past two years, although it remains one notch lower than the pre-merger WABR of Ba1. Prior to the transfer of concessional loans from the ADF, nearly three-quarters of outstanding OCR lending were claims on investment-grade borrowers. Following the consolidation with the ADF's legacy lending exposures, much of which were to lower-rated countries, the proportion of OCR's investment-grade exposures has fallen to approximately 50% of total outstanding loans since 2017 (see Exhibit 3).

Exhibit 3

ADB's borrower quality has remained strong, even as transfers of concessional loans to OCR have led to a decline in the WABR
(Cumulative distribution of credit exposures by rating, percent of total gross exposure)



Sources: ADB and Moody's Investors Service

ADB's stable WABR balances underlying shifts in the credit profiles of a number of its largest borrowers over the last two years. Indonesia (9.7% of total exposure), Vietnam (7.7%), and Mongolia (B3 stable, 1.1%) were all upgraded during 2018. At the same time, the positive impact on ADB's aggregate borrower credit quality was mitigated by the downgrade of Sri Lanka (B2 stable, 4.2%).

Going forward, we do not expect material changes in ADB's WABR given the comparatively small share of total lending to sovereign borrowers that carry either positive or negative outlooks. As of the end of 2018, only Armenia (B1 positive, 0.8%) carried a positive outlook. Conversely, while Pakistan (B3 negative, 10.1%) and the Maldives (B2 negative, 0.1%) combined accounted for a more significant share of outstanding lending, the much larger volumes of lending commitments and disbursements to sovereigns with stable outlooks will anchor overall credit quality of ADB's loan portfolio at the current WABR.

Consistent with a stable WABR, ADB's credit profile benefits from a generally robust operating environment among its borrowing member countries. In particular, we expect the Asia Pacific to continue to economically outperform other regions with large MDBs, such as Latin America and sub-Saharan Africa.

In addition, our assessment of ADB's DACQ reflects demonstrated preferred creditor status. Since the bank's inception, debt servicing on its loans has not been interrupted by market defaults in the Philippines (Baa2 stable), Indonesia and twice in Pakistan. The ADB's regular lending operations have never experienced any loss of principal from its sovereign exposures.

Our view of an MDB's DACQ also incorporates an assessment of its non-lending investments, as well as portfolio concentration risks. In the case of ADB, its equity exposures pose limited risk to capital adequacy given its small size, while the disproportionately large exposure to its top 10 borrowers is offset by the diversification at the country and regional levels.

As of the end of 2018, equity investments accounted for only 1.2% of ADB's DRAs. The bank's charter allows for equity investments of up to 10% of ADB's unimpaired paid-in capital plus reserves and surplus, excluding special reserves. Inclusive of prudential buffers, total committed equity investments of around $1.5 billion at the end of 2018 amounted to less than 30% of the specified ceiling. During 2018, ADB committed to a total of 10 equity investments totaling $274 million, up from eight investments totaling $287 million in 2017.

ADB's top 10 exposures continue to account for more than 80% of its DRAs, although this share has fallen from more than 85% in the previous year on account of the expansion of lending to other sovereigns. There has also been a shift in the composition of outstanding lending to these top borrowers: between 2018 and 2017, the share of lending to India and Indonesia increased, while declining modestly for Pakistan, and Vietnam.

While China remains ADB's largest borrower at around 15% of DRAs, this share may continue to decline over time and suggests some easing in the concentration of ADB's top 10 country exposures (see Exhibit 4). Given the level of development it has achieved, coupled with its ability to fund itself domestically and the technical expertise it has gained over time – China itself has become an important source of development finance for other countries through its policy banks – China arguably has less of a need to access financing from official institutions such as MDBs.

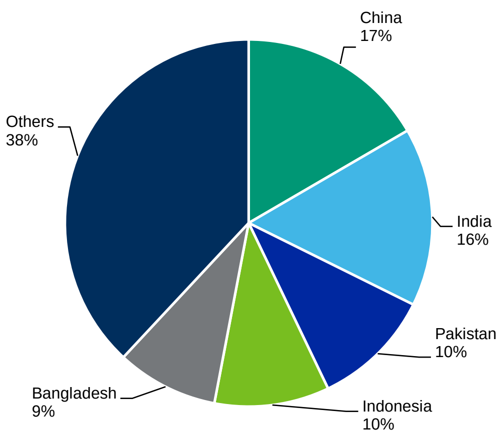
We consider ADB's country concentration risk to be low because of its relatively broad borrower base of 39 countries (29 before the merger), as well as the relatively low correlation of economic cycles among its largest members. For example, there are limited channels of transmission, either through trade or financial markets, between China and India, the bank's largest borrowers.

Given ADB's increased lending to central and smaller south Asian economies over the past five years, as well as the addition of ADF loans post-merger, the Herfindahl-Hirschman Index (HHI) for ADB's country concentration has declined to 9.3% in 2018 from 16.6% in 2013. It is now comparable to--or even lower than--other Aaa-rated banks with similar regional mandates. For example, the Inter-American Development Bank's (IADB, Aaa stable) country concentration HHI was 8.9% in 2018, while that for the Nordic Investment Bank (NIB, Aaa stable) was 21.9%. By contrast, the International Bank for Reconstruction and Development (IBRD, Aaa stable) and the International Finance Corporation (IFC, Aaa stable), both arms of the World Bank Group with a global mandate, have country concentration HHIs of around 5%.

By sector, ADB's sector concentration HHI in 2018 was unchanged from the year prior, with the largest three sectors as transportation (30.6%), energy (21.0%) and water urban infrastructure and services (10.5%) accounting for the vast majority of the portfolio (see Exhibit 5). This degree of sector concentration is in line with other Aaa-rated peers.

Exhibit 4

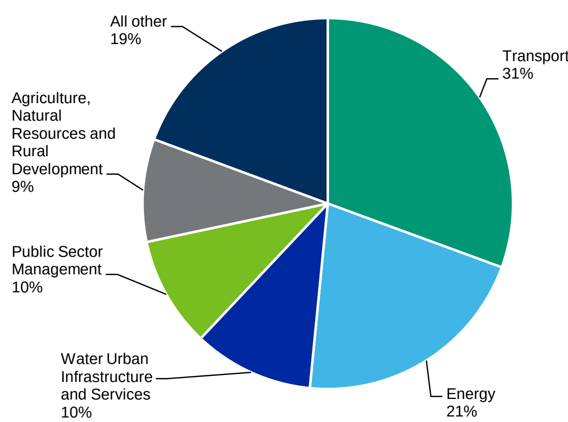
ADB's sovereign portfolio is concentrated among five of its largest borrowers...
(Percent of total sovereign exposure)



Sources: ADB and Moody's Investors Service

Exhibit 5

...and is also modestly concentrated by sector
(Percent of total OCR loans)



Sources: ADB and Moody's Investors Service

Asset performance sub-factor score - aaa

ADB's aaa sub-factor score for **asset performance** reflects its strong track record of maintaining nonperforming loans at very low levels, despite the ramp-up in development activity and shifts in the underlying creditworthiness of its borrowing members.

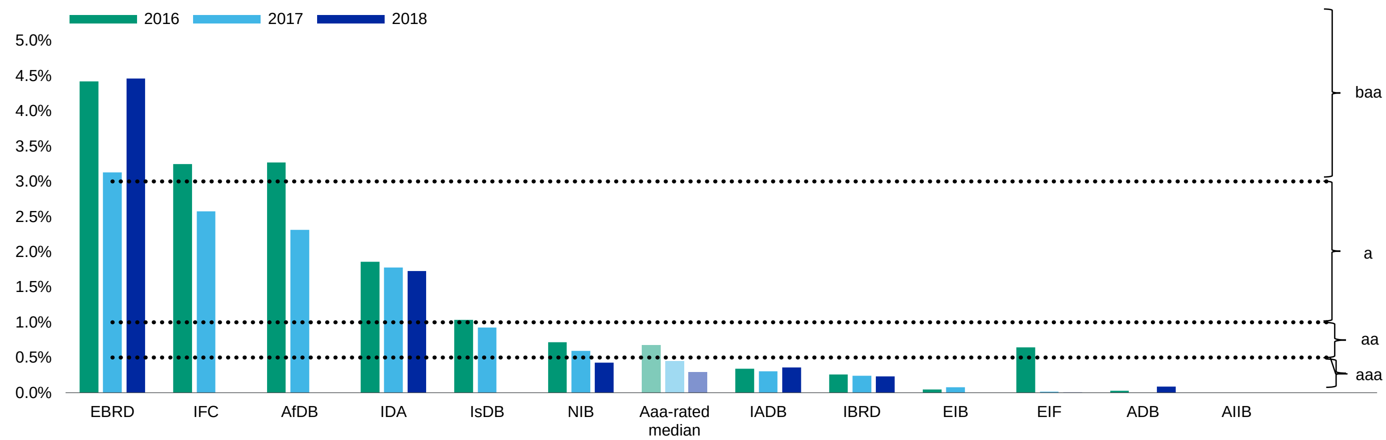
Since the global financial crisis of 2008-09, nonperforming loans have been relatively nonexistent, bolstered by a strong risk management culture. ADB places loans into nonaccrual status when the principal, interest, or other charges are overdue by 180 days, or where there is a management expectation that a loan service payment will not be paid when due. By contrast, we consider loans (gross of provisions, excluding overdue interest) to be non-performing at 90 days. Additionally, to arrive at our assessment of asset performance, we look at the notional value of guarantees called – if any – as well as equity investment impairments and write-downs and write-offs.

At the end of 2018, loans over 90 days past due--both of which were non-sovereign--totaled $95 million, or just 0.1% of gross loans outstanding; associated overdue loan servicing payments amounted to only $11 million. The overdue sum combined with the principal is well below the $183 million set aside by the bank as provisions for non-sovereign loan losses.

Similarly, nonperforming loans (NPLs) have not risen above 0.1% of gross loans outstanding over the past decade, and have remained well below ADB's loan loss provisions. The bank did not record any loans in nonaccrual status for four out of the five years prior to 2018, and its NPLs have been lower than other Aaa-rated MDBs (see Exhibit 6).

Exhibit 6

ADB's asset quality has been stronger than that of the median Aaa-rated MDB
(Nonperforming assets/total assets, percent)



Source: Moody's Investors Service

More generally, ADB has never experienced a loss of principal on its regular sovereign loan operations. No lending under the countercyclical support facility (CSF), which is aimed at assisting countries facing market stress, has fallen into nonaccrual status. In other words, all CSF loans have been paid back despite credit stresses affecting associated borrowers, further demonstrating the bank's preferred creditor status. Relatively benign operating conditions in the Asia Pacific region, notwithstanding recent cyclical stresses, also support asset performance. This particular strength is reflected elsewhere in the scorecard, particularly in the sub-factor score for DACQ.

ADB's comprehensive risk management framework also bolsters asset performance, and is guided by two objectives. Firstly, it seeks to maintain the organization's ability to absorb income losses to reduce the probability of calling on shareholder support. Secondly, it recognizes that its lending mandate and demand for its services are more important to its members during a financial crisis. These factors lead to stress tests to ensure that ADB has adequate capital to absorb significant losses while continuing to engage in development lending.

Liquidity and funding score - aa1

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	a2
Quality of funding	aaa

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.

ADB's aa1 **liquidity and funding** score incorporates its strong and lengthy track record of access to market funding, as well as sufficiently large amount of liquidity available for debt servicing and operational requirements.

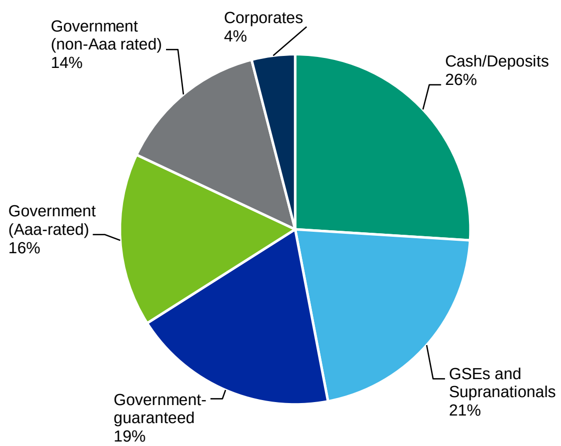
Liquid resources sub-factor score - a2

ADB holds ample **liquid resources** to cover loan disbursements, debt servicing and other potential cash outflows. Additionally, while providing a buffer against episodes of financial stress, ADB's liquidity portfolio also generates investment income that bolster's ADB's reserves.

ADB holds its liquid investments in government or government-related debt instruments, time deposits, and other instruments from banks and other financial institutions. Additionally, a small amount of ADB's liquidity portfolio is held in highly-rated corporate securities.

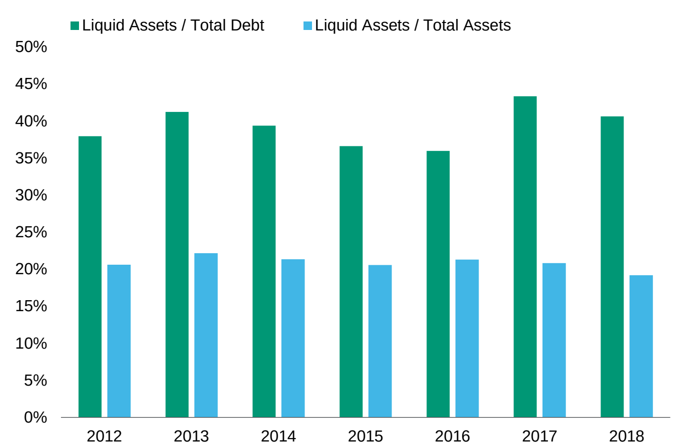
Overall, approximately 70% of ADB's treasury portfolio was highly-rated government, government-related and government-guaranteed debt instruments, with approximately one-quarter held in cash and deposits (see Exhibit 7). Over the last seven years, ADB's liquid assets have remained stable when compared to either total debt or total assets (see Exhibit 8).

Exhibit 7
ADB maintains a highly liquid treasury portfolio...
(Percent of total treasury portfolio)



Sources: ADB and Moody's Investors Service

Exhibit 8
...that has remained stable compared to total debt or assets
(Percent)



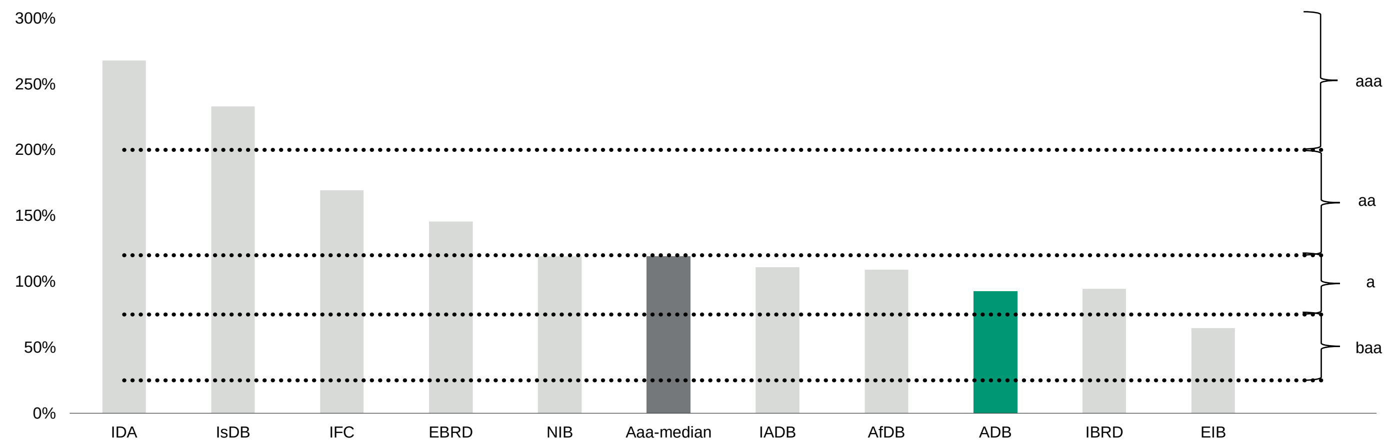
Sources: ADB and Moody's Investors Service

We measure the **availability of liquid resources** by comparing projected net outflows over the next 18 months to discounted liquid assets. The composition and size of a supranational institution's liquid assets are important indicators of its capacity to readily sell assets to offset a deterioration in its cash inflows or access to funding.

We include cash and cash equivalents, treasury assets rated Aa3 or higher, and committed, unrestricted credit lines with prime lenders with a maturity greater than two years. Estimated net cash outflows are outflows from mandate activities minus inflows from mandate activities plus debt repayments (both principal and interest).

At the end of 2018, the ADB's available liquid resources stood at 92.7% of its projected 18-month net cash outflows, which was below the median for Aaa-rated MDBs of 119.2% (see Exhibit 9). Nonetheless, the ADB's available liquidity resources remains well anchored within the a range. The lower liquid asset coverage can be attributed to ADB's adherence to its liquidity policy; approved in November 2016, the policy calls for maintaining a prudential minimum liquidity of 100% of one-year net cash requirement, which includes debt-servicing and operational outlays. Previously, the prudential minimum liquidity level was defined as 45% of the three-year net cash requirement, which implies more ample liquidity coverage than currently observed for ADB.

Exhibit 9
ADB's coverage of net cash outflows is modestly below the Aaa-rated median
(Liquid assets/net cash outflows, percent)



Source: Moody's Investors Service

We estimate that ADB's adherence to its liquidity policy, as well as its other risk management guidelines related to treasury management, implies that the assessment for the availability of liquid resources can be no lower than baa.

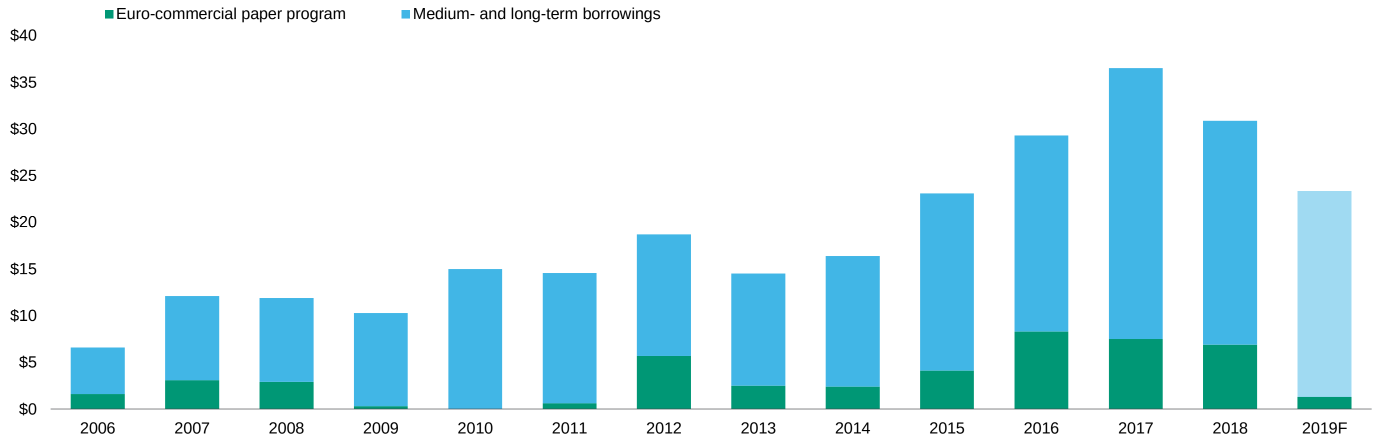
Quality of funding sub-factor score - aaa
ADB has a strong track record of stable access to market funding and a well-diversified global investor base that underpins our aaa **quality and structure of funding** assessment. The bank's market access is bolstered by the Basel Committee's classification of ADB's securities as a high quality liquid asset with zero risk weight.

ADB fulfills its borrowing needs through bond issuance in the international capital markets in each of the major trading currencies, as well as in local, less globally integrated, markets to help deepen and develop capital markets in those jurisdictions. The bank's funding advantages are reflected in its long-term (2012-18) average bond-implied rating of Aa1, which is consistent with most other Aaa-rated MDBs, including the IBRD and IFC.

ADB raised approximately $23.5 billion through mostly medium- and long-term borrowings via 130 transactions in 17 currencies with an average maturity of approximately 5.3 years over the course of 2018 (see Exhibit 10). Compared to 2017, the annual borrowing program was modestly lower, given the increase in loan principal repayments and prepayments totaling $6.9 billion in 2018, compared to around $6 billion in 2017. In 2019, ADB expects to raise approximately $22 billion in medium- and long-term borrowings; through 24 June, such issuances totaled approximately $11 billion.

Exhibit 10

Borrowing has been mostly medium to long term, corresponding to the long implementation period of ADB's development projects (Billion US$)



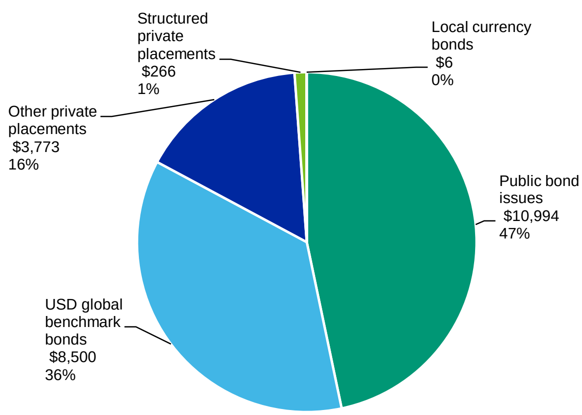
Sources: ADB and Moody's Investors Service

Public bond issues constituted more than 80% total medium and long-term borrowing in 2018 (see Exhibit 11). Since launching its first thematic issuance in 2010, the ADB has also issued about $7.6 billion through the end of 2018 in a variety of formats, primarily green bonds, but also including health and gender bonds. These topical issuances highlight the ADB's efforts to promote environmental sustainability and gender equality in its mission to eradicate poverty.

At the same time, the bank funds itself through a diversified product and currency mix. In 2018, the bank raised $23.5 billion in long-term paper through 130 transactions in 17 currencies, down in volume from $28.6 billion in the prior year but in a greater number of transactions and currencies – 2017 saw 91 transactions in 15 currencies. Overall, US dollar borrowings comprised over half of total borrowings, followed by euro (13%) and sterling (12%) (see Exhibit 12). During 2018, ADB issued for the first time in the Armenian dram and in the Ghanaian cedi. On an after-swap basis, 97% of borrowings are in US dollar.

Exhibit 11

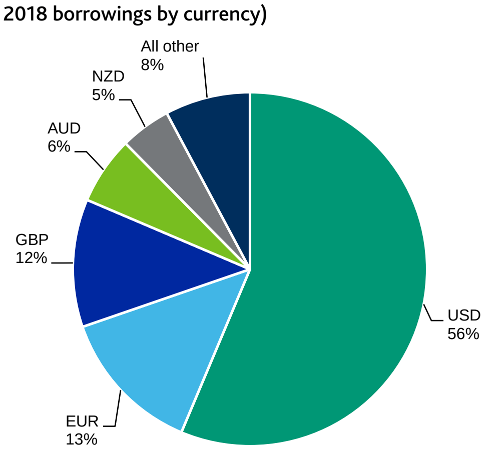
Reliance on benchmark issuances and other publicly traded instruments enhance liquidity and diversification...
(Percent of 2018 borrowings by product type)



Note: Excludes Euro-commercial paper program
Sources: ADB and Moody's Investors Service

Exhibit 12

...while issuing bonds in a number of currencies, ultimate exposure is in US dollar given the use of swaps
(Percent of 2018 borrowings by currency)



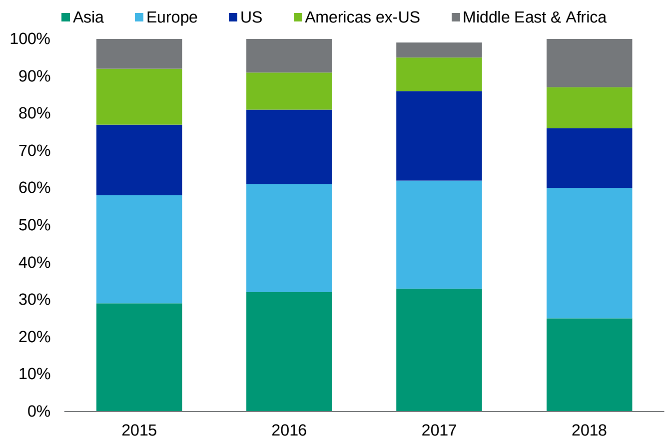
Note: Excludes Euro-commercial paper program
Sources: ADB and Moody's Investors Service

ADB's investor base is well-diversified by geography and by type of investor, as indicated by the take-up of its US dollar global issuances in 2018. Europe accounted for slightly larger than a third of the total update, followed by 25% in Asia and 16% in the US (see Exhibit

13). Compared to 2017, the allocation to investors from Europe increased to 35% from 29% and allocation to the Middle East & Africa increased to 13% from 4%, as the proportions taken up by Asia and the US declined. By institutions, central banks and official institutions made up the largest portion of investors, accounting for more than half of the demand (see Exhibit 14).

Exhibit 13

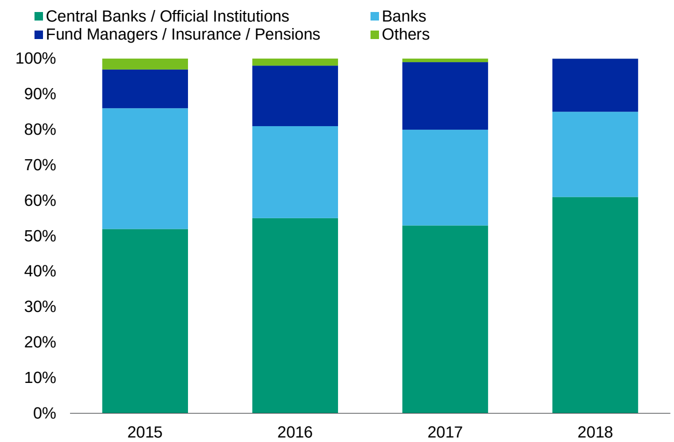
Demand for benchmark instruments is diversified...
(Percent of USD global bonds allocation by investor type)



Note: Excludes Euro-commercial paper program
Sources: ADB and Moody's Investors Service

Exhibit 14

...but somewhat concentrated among buy-and-hold investors
(Percent of USD global bonds allocation by geography)



Note: Excludes Euro-commercial paper program
Sources: ADB and Moody's Investors Service

Qualitative adjustments

Qualitative adjustments to intrinsic financial strength

Adjustments	
Operating environment	0
Quality of management	+1

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.

Consistent with our assessment of other large, well-established MDBs such as European Bank for Reconstruction and Development (EBRD, Aaa stable), IBRD and IADB, we have applied a positive adjustment for **quality of management** for ADB. The adjustment reflects ADB's comprehensive policy framework and strong risk management culture, including its adoption of global best practices and adherence to its internal policy requirements, which in turn have contributed to the bank's long track record of sustaining strong capital adequacy, robust asset performance and unfettered access to markets, among other credit strengths.

ADB maintains an independent Office of Risk Management (ORM) that examines risks on a project-specific basis, as well as on an aggregate basis, including the conduct of stress testing. ORM regularly interfaces with different levels of management, including formal reporting requirements to the Risk Committee and the Audit Committee of the board. Project approval is governed by members' respective country partnership strategies with the bank, with approval of the board of directors required for exposures larger than $100 million.

Key policies are reviewed regularly, most recently between 2015 and 2017. The review of the capital adequacy framework, for example, resulted in the approval of a revised framework effective March 2017 that introduced an economic capital framework and raised the minimum equity-to-loan ratio, their preferred metric for capital adequacy, to 34% from 25% previously.

Governance of ADB's development activities is bolstered by its accountability mechanism, which provides a forum for project-affected people and other stakeholders, such as the NGO sector and civil society, to voice concerns and report alleged noncompliance with the bank's operational policies and procedures.

ADB's periodic review of its organizational effectiveness, culminating most recently in the implementation of its new long-term strategy through 2030, demonstrates its adaptability to the changing regional landscape and the consequent evolution of its members' financing needs.

Strength of member support score - Very High

Factor 3: Strength of member support

Scale		Very High	High	Medium	Low	Very Low	
	+	Assigned					-

Sub-factor scores

Ability to support	**a3**
Willingness to support: Contractual	**aaa**
Willingness to support: Non-contractual	**Very 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 manisfestations 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.

We assess ADB's **strength of member support** as "Very High", which takes into account an a3 ability to support, a aaa assessment of the contractual support among members, and a "Very High" assessment of non-contractual support among members.

Ability to support sub-factor score - a3

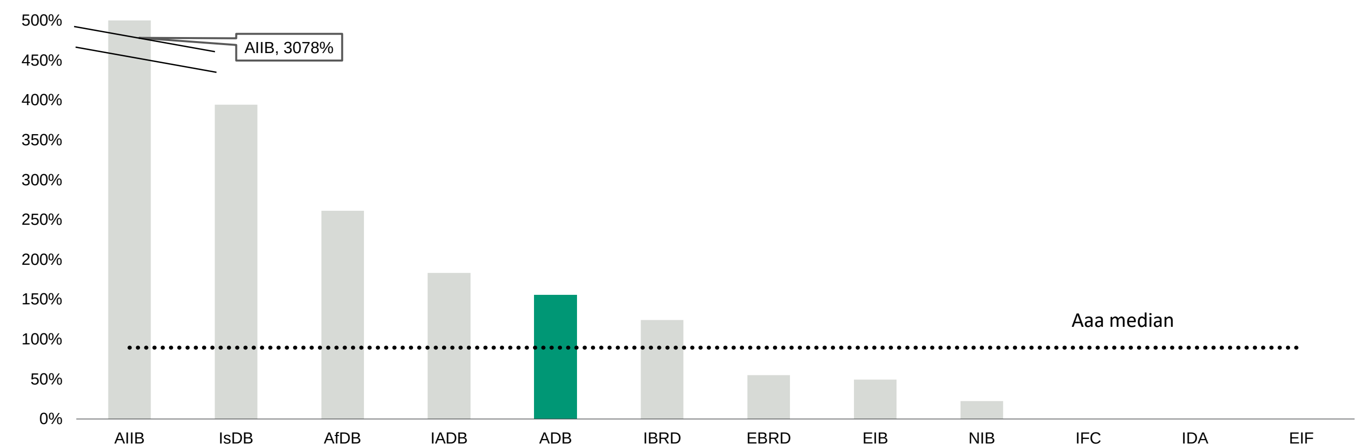
Our "a3" **ability to support** assessment is based on the members' weighted average shareholder rating (WASR) of A3. Given the stability of members' ratings, which in turn reflect the benign operating environment, the WASR has been unchanged over the last four years. We do not expect any deterioration in the WASR because of the mainly stable rating outlooks among large regional and non-regional members.

Willingness to support: Contractual sub-factor score - aaa

To assess the potential effectiveness of callable capital as a support mechanism, we calculate the ratio of callable capital to the stock of debt. ADB's stock of callable capital was not affected by the ADF-OCR merger as the shareholding structure was unaffected by the associated transfer of assets, which were almost entirely classified under reserves. As such, callable capital's coverage of ADB's debt stock has declined to 155.3% in 2018 from a recent peak of 248.5% in 2013 as borrowings have increased in line with its development portfolio – callable capital has remained stable even as the amount of total equity has risen significantly. Nevertheless, the amount of callable capital buffer in relation to debt outstanding remains substantial and consistent with a **contractual willingness to support** of aaa, and higher than the Aaa median (see Exhibit 15).

Exhibit 15

Callable capital coverage of ADB's debt stock is higher than many Aaa-rated peers
(Total callable capital/total debt, percent)



Source: Moody's Investors Service

Under ADB's borrowing policy, its gross outstanding borrowings may not exceed the sum of callable capital of non-borrowing members, paid-in capital and reserves (including surplus). Given prevailing amounts, we estimate that a rise in borrowing up to the maximum level specified by the policy would lead to a callable coverage ratio no lower than 95%, which in turn would be consistent with a contractual willingness to support score of aa. However, the bank has never previously exhausted its borrowing headroom; as we do not expect it to do so in the future, contractual support should remain firmly anchored at aaa.

Willingness to support: Non-contractual sub-factor score - Very High

We assess the **non-contractual willingness to support** for ADB as "Very High," based in part on the bank's track record of capital increases--five general capital increases since its founding--and the bank's strong international standing, which indicates important political linkages and reputational risk that would compel members to provide support.

Japan and the US, the two largest shareholders, both continue to express their strong support for ADB, including institutional reforms such as the introduction of the new long-term strategy. There have yet to be any indications that foreign policy shifts under President Donald Trump will have a material impact on the commitment of the US to the ADB as an organization. The US has continued to contribute to the ongoing 12th replenishment exercise for the ADF, the ADB's concessional financing arm, over the current four-year period between 2017 and 2020.

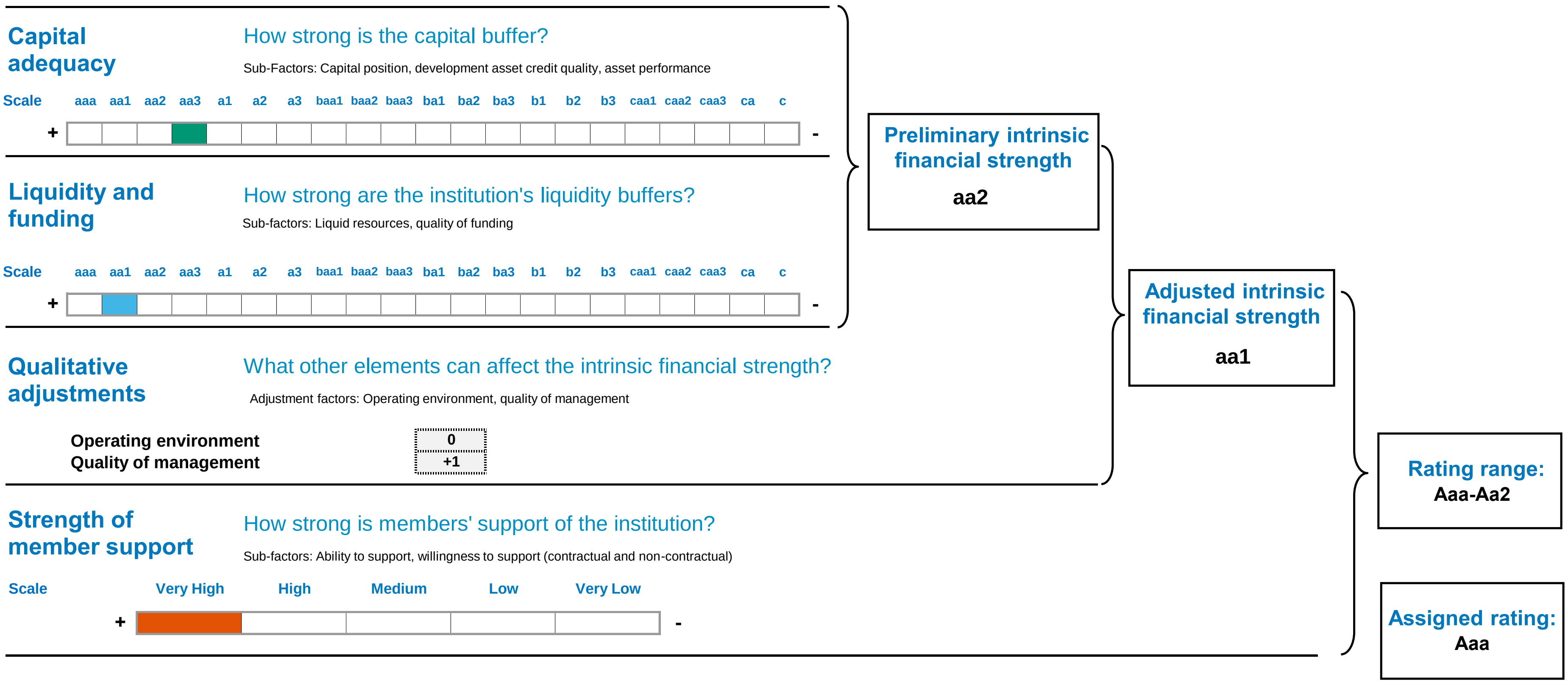
The presence of recently established MDBs in the region, including the Asian Infrastructure Investment Bank (AIIB, Aaa stable) and the New Development Bank (NDB), has not led to a shift in our assessment of non-contractual willingness of support. These newer organizations complement rather than supplant the ADB in helping to meet the Asia-Pacific's large financing needs for infrastructure and broader development. This complementarity is demonstrated by the volume of cofinancing between AIIB and ADB on various infrastructure projects over the past couple of years; more recently, in February 2019, ADB and NDB announced their first cofinancing project, the expansion of the Mumbai Metro.

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 16

Supranational rating metrics: ADB



Source: Moody's Investors Service

Comparatives

This section compares credit relevant information regarding ADB 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. Among Aaa-rated peers, ADB's capital adequacy is on par with the IADB and IBRD; despite slightly lower development asset credit quality than the IBRD, it has a significantly lower leverage ratio and consistent asset performance. ADB's unfettered market access puts its quality of funding score on par with all other Aaa-rated MDBs, while its coverage of liquid assets over short-term debt is in line with the Aaa-rated median and stronger than that of IADB and IBRD. ADB carries the highest weighted-average shareholder rating (A3) among the listed peers, while its callable capital to total debt ratio is stronger than that of IBRD, EBRD, and NIB, yet slightly below that of IADB.

Exhibit 17

ADB's key peers

	Year	ADB	AIIB	EBRD	IADB	IBRD	NIB	Aaa Median
Rating/Outlook		**Aaa/STA**	**Aaa/STA**	**Aaa/STA**	**Aaa/STA**	**Aaa/STA**	**Aaa/STA**	
Total assets (US$ million)	2018	191,860	19,425	70,857	129,459	403,056	36,308	100,158
Factor 1: Capital adequacy		**aa3**	**aa1**	**baa1**	**a1**	**a1**	**a3**	
DRA / Usable equity[1] [2] [4]	2018	211.7	6.1	180.7	284.9	449.9	531.4	248.3
Development assets credit quality score (year-end)	2018	a	a	baa	baa	aa	a	baa
Non-performing assets / DRA[1]	2018	0.1	0.0	4.5	0.4	0.2	0.4	0.4
Return on average assets[4]	2018	0.4	0.9	0.4	0.7	0.2	0.6	0.4
Net interest margin (X)[4]	2018	1.0	1.4	1.4	1.2	0.7	0.7	1.1
Factor 2: Liquidity and funding		**aa1**	**aa2**	**aa1**	**aa1**	**aa1**	**aa1**	
Quality of funding score (year-end)	2018	aaa	aa	aaa	aaa	aaa	aaa	aaa
Liquid assets / ST debt + CMLTD[3][4]	2018	286.4	0.0	169.1	191.5	163.1	230.6	191.5
Liquid assets / Total assets[4]	2018	19.2	61.2	46.8	24.2	18.2	35.4	21.7
Preliminary intrinsic financial strength (F1+F2)		**aa2**	**aa1**	**a1**	**aa3**	**aa3**	**aa3**	
Adjusted intrinsic financial strength		**aa1**	**aa1**	**aa3**	**aa2**	**aa2**	**aa2**	
Factor 3: Strength of member support		**VH**	**H**	**H**	**H**	**H**	**VH**	
Weighted average shareholder rating (year-end)	2018	A3	Baa1	--	Baa3	Baa2	Aa1	baa1
Callable capital / Total debt	2018	155.3	0.0	54.9	183.4	124.1	22.3	124.1
Callable capital (CC) of Baa3-Aaa members/Total CC[4]	2018	91.3	83.7	90.5	66.8	77.9	100.0	87.5
Rating range (F1+F2+F3)		**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	**Aaa-Aa2**	

[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

DATA AND REFERENCES

Rating history

Exhibit 18

ADB[1]

	Issuer Rating		Senior Unsecured	Outlook	
	Long-term	Short-term			Date
Outlook Assigned	--	--	--	STA	Nov-03
Rating Assigned	--	P-1	--	--	Jan-01
Rating Assigned	Aaa	--	--	--	Dec-94
Rating Assigned	--	--	Aaa	--	Mar-75

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

Annual statistics

Exhibit 19

Asian Development Bank

Balance Sheet, USD Millions	2012	2013	2014	2015	2016	2017	2018
Assets							
Cash & Equivalents	263	316	417	753	661	964	1,148
Securities	24,460	25,350	24,293	23,435	26,127	37,041	35,645
Derivative Assets	38,530	35,043	33,092	29,538	29,143	40,761	45,500
Net Loans	52,837	53,088	55,890	61,941	67,599	101,008	106,405
Net Equity Investments	949	819	862	862	814	1,185	1,280
Other Assets	2,825	1,252	1,106	1,168	1,510	1,422	1,882
Total Assets	**119,864**	**115,868**	**115,660**	**117,697**	**125,854**	**182,381**	**191,860**
Liabilities							
Borrowings	65,130	62,232	62,731	66,054	74,476	87,674	90,507
Derivative Liabilities	34,092	34,347	33,987	32,272	32,079	42,852	48,996
Other Liabilities	4,222	2,151	2,004	1,925	2,085	1,586	1,373
Total Liabilities	**103,444**	**98,730**	**98,722**	**100,251**	**108,640**	**132,112**	**140,876**
Equity							
Subscribed Capital	163,129	162,809	153,056	147,052	142,699	151,169	147,965
Less: Callable Capital	154,951	154,640	145,376	139,678	135,545	143,591	140,550
Less: Other Adjustments	2,169	1,326	451	81	79	15	15
Equals: Paid-In Capital	6,010	6,843	7,229	7,293	7,075	7,563	7,400
Retained Earnings (Accumulated Loss)	0	0	0	0	0	0	0
Accumulated Other Comprehensive Income (Loss)	-798	-641	-1,238	-1,366	-1,576	-199	-191
Reserves	11,631	11,671	12,151	12,393	12,811	43,212	43,893
Other Equity	-423	-735	-1,204	-874	-1,096	-307	-118
Total Equity	**16,420**	**17,138**	**16,938**	**17,446**	**17,214**	**50,269**	**50,984**

Sources: ADB and Moody's Investors Service

Exhibit 20
Asian Development Bank

Income Statement, USD Millions	2012	2013	2014	2015	2016	2017	2018
Net Interest Income	**636**	**576**	**584**	**621**	**699**	**1,230**	**1,433**
Interest Income	1,156	976	901	995	1,450	2,477	3,592
Interest Expense	520	400	317	374	751	1,247	2,159
Net Non-Interest Income	**-127**	**403**	**167**	**329**	**-280**	**166**	**41**
Net Commissions/Fees Income	49	46	50	49	46	53	60
Income from Equity Investments	38	10	17	-19	18	33	12
Other Income	-214	347	100	299	-344	80	-31
Other Operating Expenses	**360**	**419**	**365**	**395**	**401**	**587**	**602**
Administrative, General, Staff	351	411	352	383	390	578	591
Grants & Programs	0	0	0	0	0	0	0
Other Expenses	9	8	13	12	11	9	11
Pre-Provision Income	**149**	**560**	**386**	**555**	**18**	**809**	**872**
Loan Loss Provisions (Release)	7	-6	-1	-1	11	35	122
Net Income (Loss)	**142**	**566**	**387**	**556**	**7**	**774**	**750**
Other Accounting Adjustments and Comprehensive Income	-377	157	-597	-128	-210	1,377	154
Comprehensive Income (Loss)	**-235**	**723**	**-210**	**428**	**-203**	**2,151**	**904**

Sources: ADB and Moody's Investors Service

Exhibit 21
Asian Development Bank

Financial Ratios	2012	2013	2014	2015	2016	2017	2018
Capital Adequacy, %							
DRA / Usable Equity	327.8	314.8	335.3	360.2	397.1	203.5	211.7
Development Assets Credit Quality (Year-End)	--	--	--	--	--	a	a
Non-Performing Assets / DRA	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Return On Average Assets	0.1	0.5	0.3	0.5	0.0	0.5	0.4
Net Interest Margin	0.8	0.7	0.7	0.7	0.7	0.9	1.0
Liquidity, %							
Quality of Funding Score (Year-End)	--	--	--	--	--	aaa	aaa
Liquid Assets / ST Debt + CMLTD	189.5	193.5	175.8	170.0	144.4	196.8	286.4
Liquid Assets / Total Debt	38.0	41.2	39.4	36.6	36.0	43.3	40.7
Liquid Assets / Total Assets	20.6	22.2	21.4	20.6	21.3	20.8	19.2
Strength of Member Support, %							
Weighted Average Shareholder Rating (Year-End)	Baa2	Baa1	Baa1	A3	A3	A3	A3
Callable Capital / Gross Debt	237.9	248.5	231.7	211.5	182.0	163.8	155.3
Callable Capital (CC) of Baa3-Aaa Members/Total CC	89.2	91.9	92.2	92.2	91.5	91.5	91.6

Sources: ADB and Moody's Investors Service

Moody's related publications

Rating Action

- Moody's affirms ADB's Aaa rating, maintains stable outlook, July 2019

Credit Opinion

- Asian Development Bank - Aaa stable: Update following rating affirmation, outlook unchanged, July 2019

Sector Comment

- Sovereigns - Global: Multilateral development banks' climate finance growth promotes resiliency in climate-vulnerable sovereigns, June 2019
- Sovereign & Supranational - Asia: ASEAN green infrastructure facility will benefit climate-vulnerable sovereigns across Southeast Asia, April 2019

Sector In-Depth

- Sovereigns - Global: MDB climate finance builds resiliency in climate-vulnerable sovereign credit profiles, April 2019

Rating Methodology

- Multilateral Development Banks and Other Supranational Entities, 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
- Asian Development Bank website

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

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