Credit Outlook

17 August 2020

NEWS AND ANALYSIS

Corporates

» Appeals Court ruling in Qualcomm antitrust case is credit positive 2

» Roper Technologies' Vertafore acquisition is credit positive 4

» Southwestern Energy's acquisition of Montage Resources is credit positive for both companies 5

» Applied Material's results and outlook highlight strong business profile and financial strength 6

» Merger will be credit positive for Shandong Hi-speed, but effect on Qilu depends on stage of merger 9

» China Evergrande's sale of stake in property management arm is positive, but constrained by repurchase obligation 12

Infrastructure

» Empresas Publicas de Medellin's claims against Ituango contractors and board's resignation are credit negative 13

Banks

» Consent order related to Capital One's 2019 data breach will strengthen bank's cyber risk management 15

» German property-lending banks report first-half profits despite boosting loan loss provisions 17

» Russia extends regulatory forbearance measures, a credit negative for banks 19

» BLOM Bank's sale of Egyptian subsidiary would provide much-needed capital enhancement 21

» Saudi banks' first-half loan impairments offset increased revenue, decreasing profits 10% from year ago 22

Exchanges and Clearing Houses

» Brazil's allowance of exchange-traded depositary receipts is credit positive for B3 24

Insurers

» Cathay Life's investment loss on Bank Mayapada is credit negative 25

Sub-Sovereigns

» State of Sao Paulo's proposal to end indirect administration of 10 entities is credit positive 27

US Public Finance

» College sports postponements dampen revenue prospects, although interruption in debt payments is unlikely 29

CREDIT IN DEPTH

» The causes of sovereign defaults 33

We examine the causes of sovereign defaults since 1997. Institutional and political factors and high debt burdens now account for a larger share of defaults than they did a decade ago.

PODCASTS AND VIDEOS

» Podcasts and Videos 34

Our analysts discuss their latest research.

RECENTLY IN CREDIT OUTLOOK

» Articles in last Thursday's Credit Outlook 35

» Go to last Thursday's Credit Outlook

See the latest from Moody's: moodys.com/coronavirus

Rate this Research

Appeals Court ruling in Qualcomm antitrust case is credit positive

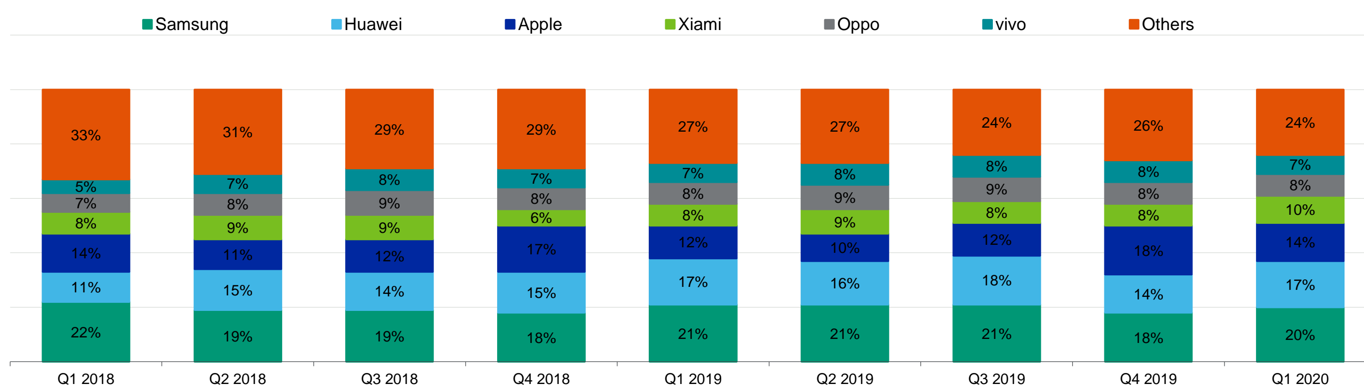
Originally published on 12 August 2020

On 11 August, the US Ninth Circuit Appeals Court reversed a May 2019 federal district court ruling and found that Qualcomm Incorporated's (A2 stable) licensing and chip sale practices that were subject to the district court ruling were not anticompetitive. Although the Federal Trade Commission can appeal the decision, we believe the ruling reduces previous uncertainties posed by the litigation.

The appeals court found, among others things, that Qualcomm's licensing practices that were subject to the District Court ruling were not anticompetitive, because the company is not under antitrust duty to license to rival chip suppliers. To the extent that Qualcomm breached any commitments to international standard-setting organizations to license patents on fair and reasonable terms, the remedy for these breaches lies in contract and patent law, rather than antitrust law. Finally, the court found that Qualcomm's "no license, no chips" policy does not undermine market competition.

Over the last year, Qualcomm has signed multiyear global licensing agreements with all major handset original equipment manufacturers to cover 5G multi-mode mobile devices, including a multi-year agreement signed with Huawei in July (see exhibit).

Global handset market share
% of units in period



Source: Mobile Devices Monitor

In April 2019, Qualcomm entered settlement agreements with Apple Inc. (Aa1 stable) and its contract manufacturers to dismiss all outstanding litigation between the parties. Qualcomm also entered into a six-year global patent license agreement with Apple, which includes an option for Apple to extend for two additional years, and a multi-year chipset supply agreement with Apple. Consequently, Apple is now making royalty payments directly to Qualcomm (no longer through contract manufacturers) that we estimate at $7-$8 per iPhone.

Regarding chipsets, we believe Qualcomm will be the only 5G modem supplier to Apple for at least 2020 and 2021 with a strong position to continue supplying leading edge 5G modems to Apple beyond that. Following Apple's acquisition of Intel's modem business, Apple plans to use its own modem designs for certain Apple devices, but not necessarily 5G iPhones. It is also possible that another supplier (e.g., Samsung, MediaTek) could supply Apple 5G modems for lower-end phones over time. Although it is possible that Apple could develop its own capabilities in 5G modems for high end phones over time, given Qualcomm's strong lead in an increasingly complex 5G framework, Qualcomm is in a strong position to continue supplying Apple over the medium term.

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.

Qualcomm's credit profile reflects its leading position in the semiconductor market focused on mobile system-on-a-chip/modems and intellectual property that is foundational to wireless communications. Device makers license Qualcomm's CDMA and OFDMA technology and often, but not always, use its semiconductors.

We project that Qualcomm will grow revenue and earnings over the next year despite weaker near term results arising from currently weak global demand for handsets. With royalty payments now being made by all the world's leading handset manufacturers, we project revenue of $26 billion and EBITDA of about $9 billion in fiscal 2021, which ends in September. Assuming Qualcomm refinances maturing debt, we project adjusted gross debt to EBITDA of about 2.0x (1.7x excluding the transition tax liability) in fiscal 2021 and more than $10 billion of cash balances. Strong projected operating results in 2021 reflects the continued growth of the 5G market (and higher average selling prices and more chip content for Qualcomm) that the company estimates will be a 175-225 million unit market in calendar 2020.

Richard J. Lane, ***Senior Vice President***
Moody's Investors Service
richard.lane@moodys.com
+1.212.553.7863

Lenny J. Ajzenman, ***Associate Managing Director***
Moody's Investors Service
lenny.ajzenman@moodys.com
+1.212.553.7735

Roper Technologies' Vertafore acquisition is credit positive

Originally published on 13 August 2020

On 13 August, Roper Technologies, Inc. (Baa2 stable) announced that it is acquiring Vertafore, Inc. (B3 negative) for $5.35 billion. Notwithstanding near-term leveraging, we expect the transaction to ultimately be credit positive brecause it will enhance and diversify Roper's already broad revenue streams while also providing what we anticipate will be a steady stream of cash generation over the years to come.

We expect that the company will maintain financial policies consistent with historical practice, and use excess cash flows to repay incremental borrowings in an accelerated manner following the acquisition.

The acquisition will be funded through a combination of cash on hand, revolver borrowings, and new debt. Given the $5.35 billion purchase price, we anticipate a significant increase in reported debt and financial leverage, with Roper's Moody's-adjusted debt-to-EBITDA likely to be well in excess of 4x at the acquisition's close. Similar to previous debt-funded leveraging acquisitions, we expect Roper to refrain from additional M&A activity and instead focus on debt reduction until key credit metrics are restored to levels commensurate with the company's pre-acquisition credit profile.

Vertafore is a provider of software, data and other value-add solutions to insurance carriers, agencies and brokers. The acquisition is in keeping with Roper's long-standing strategy of acquiring asset-light, software-based companies with strong positions in niche markets. The fully priced purchase multiple of around 18x reflects Vertafore's strong market position as one of two leading providers of software solutions to the property and casualty insurance brokerage industry, as well as its deeply entrenched customer base and recurring revenue streams. Notwithstanding its large size, we consider the acquisition of Vertafore as having relatively limited integration and execution risks.

Roper's Baa2 ratings continue to incorporate its strong competitive standing within its niche markets, as well as the portfolio benefits that accrue from the company's highly diverse set of products and services that have varied and distinct demand drivers. Roper's strong cash generating capabilities represent a key credit consideration and provide the necessary financial flexibility to accommodate the company's somewhat lumpy acquisition strategy, which periodically involves large debt-financed leveraging transactions.

Eoin Roche, ***VP-Senior Analyst***
Moody's Investors Service
eoin.roche@moodys.com
+1.212.553.2868

Russell Solomon, ***Associate Managing Director***
Moody's Investors Service
russell.solomon@moodys.com
+1.212.553.4301

Southwestern Energy's acquisition of Montage Resources is credit positive for both companies

Originally published on 14 August 2020

On 12 August, Southwestern Energy Company (Ba2 stable) announced that it will acquire its smaller Appalachian peer, Montage Resources Corporation (B2 review for upgrade), for roughly $865 million (enterprise value, including debt) in an all-stock deal. The deal is credit positive for Southwestern, because it adds to the company's Appalachian acreage, and for Montage, which will benefit from merging with a company with a stronger credit profile.

Southwestern will issue 1.8656 shares for each share of Montage, valuing the Montage equity at $205 million. The parties expect the acquisition, which is subject to Montage's shareholder approval and regulatory reviews, to close in the fourth quarter 2020. On 13 August, Southwestern priced an equity offering that generated proceeds of about $140 million that the company intends to use to partially redeem, upon the close of the acquisition, Montage's $510 million senior notes due in 2023.

The transaction will significantly enhance Montage's credit quality because Southwestern has a stronger credit profile, greater financial resources, and because Southwestern will partially redeem Montage's debt. This transaction is also favorable for Southwestern because it adds to the company's Appalachian acreage in both Marcellus rich gas and Utica dry gas windows, and will marginally improve its leverage profile post-acquisition given Montage's low financial leverage and the incremental equity offering by Southwestern.

The combined company will be the third-largest Appalachian producer, with a production scale increased by about 25% to 475 million barrels of oil equivalent (mboe) per day. However, the acquisition is only a modest credit positive for Southwestern because the commodity price environment is challenging and the transaction is relatively small compared to Southwestern's enterprise value. As such, Southwestern's Ba2 corporate family rating and stable outlook are unchanged.

Like Southwestern, Montage is an exploration and production (E&P) company that operates primarily in the Utica and Marcellus shales. Montage holds approximately 322,200 net acres in the Appalachian Basin and produces about 100 mboe per day (78% natural gas, 22% liquids). The combined company will have a similar production mix of 79% natural gas, 17% natural gas liquids and 4% oil. The combined net acreage will be 786,000 acres, with some overlap in both Southwest Appalachia and Northeast Appalachia regions. We forecast that the combined entity will be free cash flow positive in 2021, and that it will generate a ratio of retained cash flow to debt (RCF/debt) of more than 30% in 2021.

This transaction will modestly help Southwestern's leverage profile with debt to average daily production decreasing to about $6,000 per boe from $6,500. Pro forma cash flow based leverage metrics will also improve because Montage has slightly better standalone RCF/debt and Debt/EBTITDA than Southwestern on its own. However, the combined entity's debt to proved developed reserves is likely to worsen slightly to $2.5 per boe from $2.3 per boe. We expect Southwestern to use the anticipated free cash flow generation to reduce debt overtime and to opportunistically refinance Montage's remaining 8.875% notes due in 2023. Post-acquisition, Southwestern will continue to maintain a favorable debt maturity profile relative to other natural gas focused E&P companies with only about $600 million notes maturing before 2025.

Southwestern Energy Company is a US independent E&P company headquartered in Houston. Montage Resources Corporation is a publicly traded exploration and production company that operates in the Utica and Marcellus Shales, and has its headquarters in Irving, Texas.

Arvinder Saluja, CFA, *VP-Senior Analyst*
Moody's Investors Service
arvinder.saluja@moodys.com
+1.212.553.1639

Steven Wood, *MD-Corporate Finance*
Moody's Investors Service
steven.wood@moodys.com
+1.212.553.0591

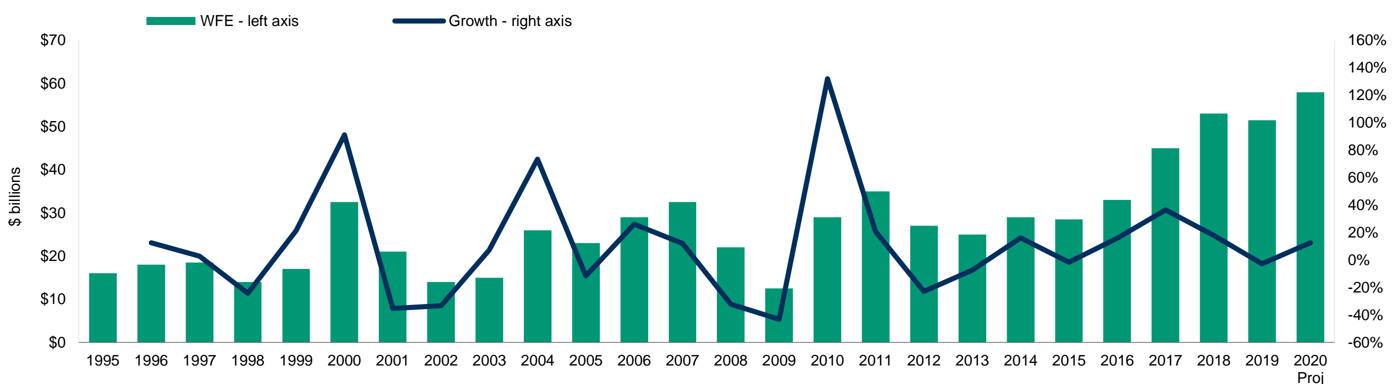
Applied Material's results and outlook highlight strong business profile and financial strength

Originally published on 13 August 2020

On 13 August, semiconductor equipment maker Applied Materials Inc. (A3 stable) reported quarterly revenue of $4.4 billion, up 23% from a year earlier, marking the third straight quarter of year-over-year revenue growth after a sector downturn in 2019 and despite the current COVID-19 macroeconomic challenges. Revenue growth in the third quarter that ended in July was 10%, or $405 million, higher than our previous expectations and driven by strength in the foundry and logic markets. The company guided October quarter revenue to grow 23% year-over-year to $4.6 billion, contributing to our expectation that calendar year revenue will exceed $17.5 billion.

Applied noted strong order momentum, driven by ongoing strength in foundry and logic semiconductor spending and a progressive recovery in memory spending. The solid outlook is supported by the company's industry-leading positions across various equipment markets and the demand momentum that has continued for both technology development and capacity growth in advanced logic nodes. We expect the demand to support advanced logic nodes to be healthy through 2020 and in 2021, driven by accelerating investment in extreme ultraviolet lithography (EUV), competitive dynamics and new capacity additions. With this positive market outlook, we expect that wafer fabrication equipment spending will grow about 12% to $58 billion in calendar 2020, which would exceed the previous record of $53 billion in 2018 (see Exhibit 1).

Exhibit 1
Wafer fabrication equipment spending projected to set record in 2020

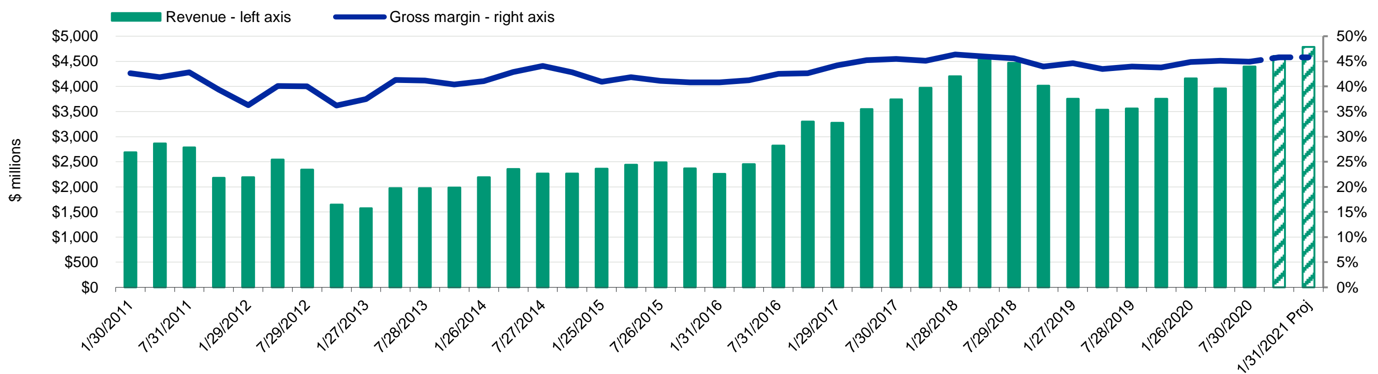


Sources: Moody's Financial Metrics and Moody's Investors Service projections

We expect that the semiconductor equipment sector will remain subject to cyclical demand, however, the magnitude of cycles will be less dramatic because of the broadened end-market demand for semiconductors (data center, mobile devices, artificial intelligence, autonomous driving, internet of things, etc.) and the consolidation within the customer base, which limits irrational capacity additions that have contributed to historical boom and bust cycles.

With the overall semiconductor equipment market projected to grow around, our forecast that Applied's revenue will grow about 17% to more than $17.5 billion indicates market share gains. The company's longer-term gross margin stability during the year and longer-term uptrend reflects the company's strong value add to solve its customers high complexity challenges in making more and more advanced chips (see Exhibit 2).

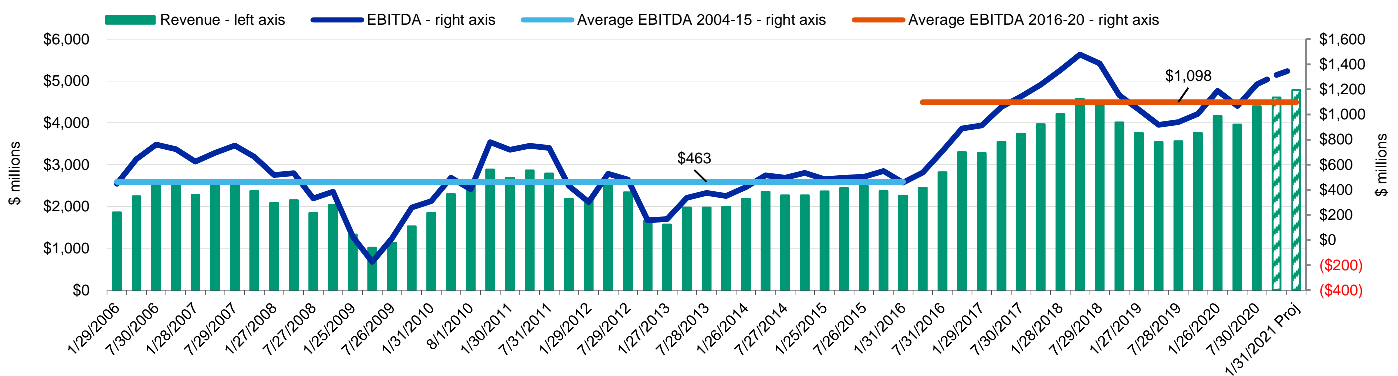
Exhibit 2
Gross margins durable through cycles
Trailing 12 months



Sources: Applied Materials, Moody's Financial Metrics and Moody's Investors Service projections

Although the company will invest to address customer service requirements and address supply chain constraints to meet customer demand (e.g., higher freight costs to deliver equipment), we project that EBITDA will approach $5 billion in calendar 2020, up from $4.1 billion achieved in calendar 2019. This outlook is supported by Applied's July quarter results (23% year-over-year growth), October quarter guidance of 23% revenue growth, strong order flow, and ongoing strong demand as semiconductor customers invest in 5 and 7-nanometer ramps, EUV development, and the steady trailing edge demand to support 5G infrastructure, IoT, and automotive applications. On a longer-term basis, Applied's EBITDA is structurally higher by 2.4x than several years ago, driven by the increasing importance of deposition, etch, and other tools to the efficient manufacturing of more advanced chips (see Exhibit 3).

Exhibit 3
EBITDA structurally higher
Trailing 12 months

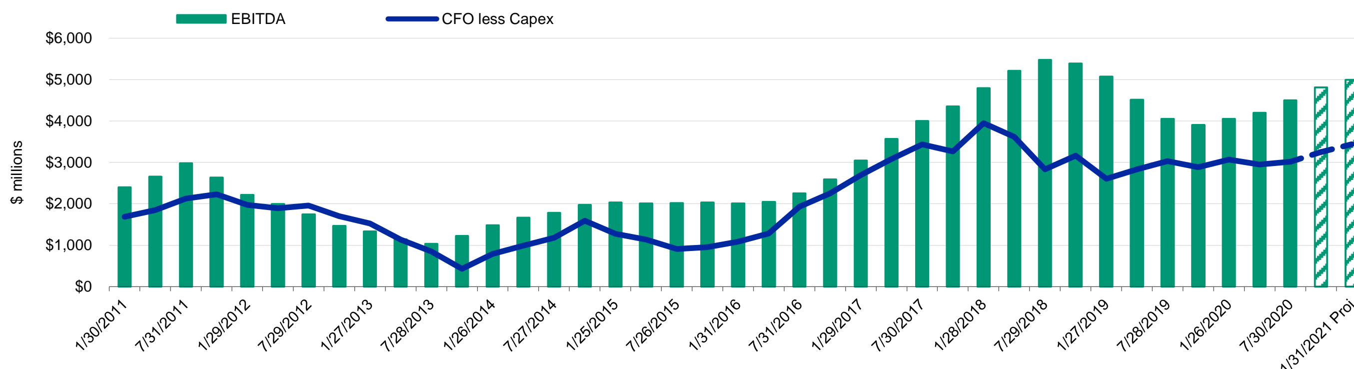


Sources: Applied Materials, Moody's Financial Metrics and Moody's Investors Service projections

In the face of a very challenging macro environment, we expect Applied will produce solidly positive free cash flow given the company's strong profit margins, low capital expenditures, and very strong conversion (74%) of EBITDA into cash flow after capital spending (see Exhibit 4). During calendar 2020, we project Applied will generate free cash flow of about $2.6 billion after paying about $800 million of dividends. Applied has generated positive free cash flow through different business conditions in all but one of the past 25 years.

Exhibit 4

Conversion of EBITDA into cash flow from operations less capital spending
Trailing 12 months



Sources: Applied Materials, Moody's Financial Metrics and Moody's Investors Service projections

We project currently modest leverage will decline as calendar 2020 progresses, with adjusted gross debt to EBITDA declining to 1.4x by January 2021, while free cash flow to adjusted gross debt approximates 40%. The company's next debt maturity is a $700 million note due in 2025. With cash and liquid investments of $6.3 billion at July 2020 and share buybacks likely to be well within free cash flow generation this calendar year, we project Applied's cash will grow and approximate $7.5 billion to $8.0 billion by January 2021. Under our base case scenario, Applied will continue to maintain an excellent liquidity profile, with cash balances covering the sum of quarterly operating expenses, capital spending, and dividends by more than 7x.

Richard J. Lane, ***Senior Vice President***
Moody's Investors Service
richard.lane@moodys.com
+1.212.553.7863

Lenny J. Ajzenman, ***Associate Managing Director***
Moody's Investors Service
lenny.ajzenman@moodys.com
+1.212.553.7735

Merger will be credit positive for Shandong Hi-speed, but effect on Qilu depends on stage of merger

Originally published on 14 August 2020

On 12 August, Shandong Hi-speed Group Co., Ltd.'s (SDHG, A3 negative) listed subsidiary, Shandong Hi-speed Co., Ltd, announced that SDHG will absorb and integrate Qilu Transportation Dev. Grp. Co., Ltd. (QLTD, A3 negative), at which time QLTD will be dissolved. Upon completion of the transaction, which is part of a reorganization announced on 12 July, SDHG will also subsume QLTD's subsidiaries' assets, liabilities, business, employees, contracts, qualifications, and all rights and obligations. The timing of the merger remains unclear.

Once completed, the Shandong government-led merger will be credit positive for SDHG because it will allow the company to dominate Shandong province's transportation sector. SDHG will become the largest state-owned enterprise in Shandong province by assets, while enhancing its strategic importance to the Shandong Provincial Government. We also expect SDHG's financial metrics will improve as QLTD was in a stronger financial position than SDHG.

We expect that QLTD's credit profile will change during different stages of the merger before it is finally dissolved. QLTD's standalone credit profile will be shaped by the timing and the form of its assets and corresponding debts/liabilities transferred to SDHG. At the same time, the level of government or parental support depends on QLTD's strategic significance and integration to SDHG during the merger process.

We do not expect QLTD's liquidity and refinancing risk to heighten during the process of the merger as there is no change of control acceleration/ redemption provision for QLTD's existing indebtedness. In addition, we expect the company to receive government coordination in obtaining any necessary creditors' consent on relevant debt arrangements.

The merger combines Shandong's duopoly land transportation sector meaning the new entity will dominate the province's road, rail and most port transportation sectors (see Exhibit 1).

Exhibit 1

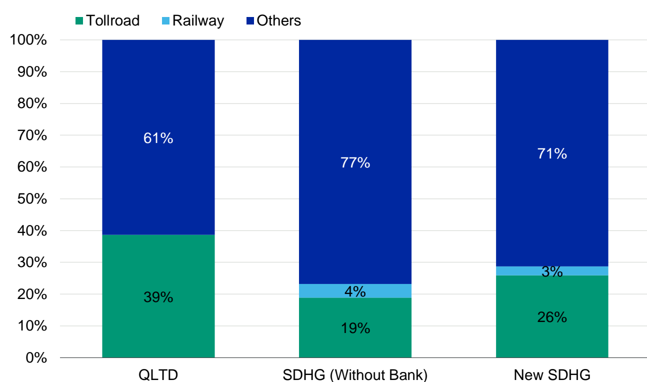
We expect the combined group will dominate the province's road, rail and port transportation sectors

	SDHG	QLTD	New SDHG
Toll road	1,864 km, 30% of the province	3,470 km, 60% of the province	5,334 km, 90% of the province
Port *	30% stake in the port group	30% stake in the port group	60% stake in the port group
Hi-speed Railway (HSR)	553.5 km (Including non-consolidated projects)	/	553.5 km**

* Port asset transfer upon completion of the merger remains unclear.
** SDHG is the only provincial level HSR railway investment platform, that partners with CSRC on constructing the HSR in Shandong Province. By end of 2019, total length of HSR in Shandong Province reached 1,987 kilometers.
Sources: Company and Moody's Investors Service estimates

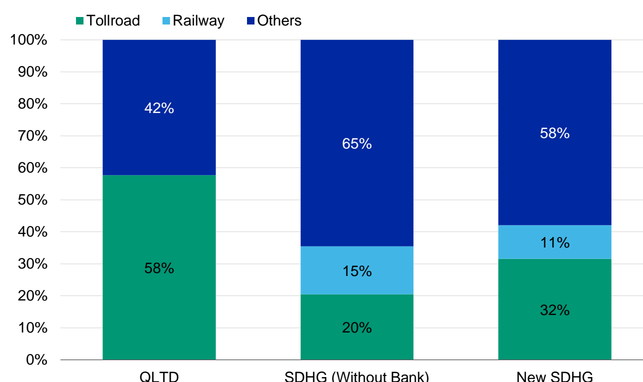
We expect the merged SDHG to maintain diversified businesses, with toll road operations remaining as the core business, accounting for the most of the merged entity's assets, debt, profit and cash flow. Based on the companies' pro forma consolidation, toll road-related assets and gross profit would account for 32% of SDHG's and 53% of QLTD's consolidated results in 2019 (see Exhibit 2 and 3). Most of the other business segments in the new merged entity will generate business synergies with its transportation operations, including rail, petrochemical, logistics and construction. This synergy will be enhanced taking into account the entities dominance over the provincial toll road assets and good connectivity between toll roads. The new SDHG' strategy could also evolve to include investment holdings because it will have high exposure to non-transportation sectors and businesses outside Shandong province.

Exhibit 2
Revenue breakdown for 2019



Based on reported financials.
Weihai City Commercial Bank's (WHCCB) financials are carved out from SDHG's financials in accordance with Moody's estimation
Sources: Company and Moody's Investors Service estimates

Exhibit 3
Asset breakdown for 2019



Based on reported financials.
Weihai City Commercial Bank's (WHCCB) financials are carved out from SDHG's financials in accordance with Moody's estimation
Sources: Company and Moody's Investors Service estimates

We expect SDHG finances will marginally improve upon the merger completion because QLTD has better financial metrics. QLTD is pro forma around 30% the size of the consolidated group, although that excludes SDHG's banking operations (see Exhibit 4).

Exhibit 4
Pro forma financial profile comparisons of SDHG and QLTD

Financial Metrics	QLTD			SDHG (without Bank)*			New SDHG		
RMB Million	**2019A**	**2020E**	**2021E**	**2019A**	**2020E**	**2021E**	**2019A**	**2020E**	**2021E**
Total Assets	217,066	213,426	226,714	497,273	526,288	562,607	714,340	739,714	789,321
Total Debt	112,269	120,689	128,727	249,474	272,526	298,744	361,744	393,214	427,471
Total Revenue	38,753	35,169	46,570	69,844	67,566	72,068	108,597	102,735	118,637
Toll Revenue	14,973	15,351	22,294	13,186	10,835	15,234	28,159	26,187	37,528
FFO	8,751	3,528	9,859	9,880	9,281	10,106	18,630	12,809	19,965
Interest expenses	3,909	5,823	6,475	9,829	9,900	10,885	13,738	15,722	17,360
Government Grants	845	2,800	501	1,197	5,000	5,000	2,041	7,800	5,501
Key metrics (without Grants)									
- FFO/ Debt	7.8%	2.9%	7.7%	4.0%	3.4%	3.4%	5.2%	3.3%	4.7%
- FFO int. coverage	3.2x	1.6x	2.5x	2.0x	1.9x	1.9x	2.4x	1.8x	2.2x
Key metrics (with Grants)									
- FFO/ Debt	8.5%	5.2%	8.0%	4.4%	5.2%	5.1%	5.7%	5.2%	6.0%
- FFO int. coverage	3.5x	2.1x	2.6x	2.1x	2.4x	2.4x	2.5x	2.3x	2.5x

* Weihai City Commercial Bank's financials are carved out from SDHG's financials in accordance with Moody's estimation
All ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations
Sources: Company and Moody's Investors Service estimates

According to the announcement, after the merger, SDHG's ownership will remain unchanged. It will be 70% owned the by Shandong State-owned Assets Supervision and Advisory Commission (SASAC), 20% by Shandong Guohui Investment Co., Ltd (Baa2 stable) and 10% by Shandong Provincial Council for Social Security Fund (SSF).

We expect the new SDHG will be more strategically important to the Shandong provincial and China (A1 stable) central governments, and will continue to receive a high level of government support. SDHG will become the largest state-owned enterprise in Shandong province by assets. In addition to its regional dominance, the new SDHG will be the largest toll road company in China by assets.

While the new entity will eventually achieve business synergies, they could be difficult and time consuming initially because of the complexity of multiple asset transfers between the two large and established companies.

The merger could require additional regulatory, creditor and shareholder clearances to proceed. We expect the Shandong government, which is driving the merger, to provide operational support and coordination to ensure a smooth transition. The high profile merger is important to the reputation of the Shandong government and its successful execution will set a precedent for subsequent regional and local governments' SOE consolidation.

The reorganization is consistent with the SOE reforms promoted by the Shandong government to concentrate its state-owned assets in leading companies to enhance efficiency and asset profitability. The Shandong government plans to complete eight SOE reorganizations by the end of 2020.

Ada Li, *VP-Sr Credit Officer*
Moody's Investors Service
ada.li@moodys.com
+852.3758.1606

Justin Tse, *Associate Analyst*
Moody's Investors Service
justin.tse@moodys.com
+852.3758.1596

Qingqing Guo, *AVP-Analyst*
Moody's Investors Service
qingqing.guo@moodys.com
+86.21.2057.4093

Ning Loh, *Associate Managing Director*
Moody's Investors Service
ning.loh@moodys.com
+852.3758.1668

China Evergrande's sale of stake in property management arm is positive, but constrained by repurchase obligation

Originally published on 14 August 2020

On 13 August, China Evergrande Group (B1 negative) announced it will sell a 28.1% equity stake of its property management arm to a group of strategic investors for a total consideration of HKD23.5 billion ($3.0 billion). After the sale, Evergrande's ownership in the property management arm will be reduced to 71.9% from 100%. It will remain a subsidiary of Evergrande following the transaction.

Evergrande's sale is credit positive because it will improve the company's immediate liquidity. However, if the property management arm cannot be listed by the second anniversary of the transaction completion date, Evergrande will be required to repurchase the equity at the original investment cost with an interest rate of 10%. Evergrande previously announced it was considering a spin-off and separate listing of the property management business.

The proceeds from this transaction will be used for general corporate purposes.

In the first seven months of 2020, Evergrande's contracted sales were RMB399 billion, up 23.9% year on year, which will support company revenue growth in the next 12-18 months. Its cash collection was also high at 89% in the first half of 2020. We expect the company's contracted sales will grow moderately in 2020 from the RMB601 billion in 2019, supported by its strong sales execution.

We expect Evergrande's leverage, as measured by revenue/adjusted debt, will improve to 53%-59% over the next 12-18 months from 46.5% in 2019, primarily driven by slower debt growth from controlled land acquisitions. We also expect Evergrande's EBIT/interest coverage will improve to 2.1x-2.3x over the next 12-18 months from 1.7x in 2019, driven by an EBIT increase and controlled debt growth.

Cedric Lai, ***VP-Senior Analyst***
Moody's Investors Service
cedric.lai@moodys.com
+852.3758.1456

Alfred Hui, ***Associate Analyst***
Moody's Investors Service
alfred.hui@moodys.com
+852.3758.1307

Franco Leung, CFA, ***Associate Managing Director***
Moody's Investors Service
franco.leung@moodys.com
+852.3758.1521

Empresas Publicas de Medellin's claims against Ituango contractors and board's resignation are credit negative

Originally published on 13 August 2020

On 11 August, Empresas Publicas de Medellin E.S.P. (EPM, Baa3 negative) announced a civil court filing in the Department of Antiochia requesting an out-of-court conciliation with the consortium responsible for construction of the Ituango dam and their insurance providers. EPM is seeking to recover damages of approximately $2.6 billion incurred in the 2018 Ituango Dam incident, when falling rock and soil blocked a tunnel and disrupted the downstream flow of water from Colombia's (Baa2 stable) Cauca River through the Ituango dam. The company, together with advisors and suppliers, continues to work on safety measures and the advance of construction. The filing is credit negative because it increases the risk of further delays and cost overruns to complete the Ituango dam, depending on how the consortium responds.

That same day, EPM also announced the resignation of eight of its nine-member board of directors. The mayor of the City of Medellin (Baa2 stable), the board´s chairman remains as the only board member. The resignation of the board followed the holding of an extraordinary board meeting where the board expressed its dissatisfaction with ongoing efforts to modify a number of company bylaws and the lack of consultation prior to the decision to pursue damages against contractors. The abrupt resignation highlights the weaknesses within EPM's corporate governance structure.

EPM based its request for the extrajudicial process on the results of a report by Skava Consulting, an engineering consulting firm, identifying the root causes of the incident as the blocked diversion tunnel and subsequent events. The EPM requested compensation for damaged machinery, additional financial costs, lost profits, and expenses related to compensation of the approximately 4,000 people affected. Under the process, a three-month window to seek conciliation will begin. The company noted that failure to reach an agreement within the three-month time frame will likely start a period of stronger legal claims and dispute.

The timing of the filed request follows EPM´s interpretation that damage claims need to be filed within a two-year window of the event. We recognize the company's senior management's statutory obligation to pursue any potential compensation the company may be entitled to but we believe there are risks to further delays and cost overruns on Ituango depending on how the construction consortium responds. A potential replacement of construction contractors would lengthen the construction period and likely increase costs, and would be detrimental to EPM´s leverage trajectory, further exposing the company´s balance of risks. Even if successful, the process started by EPM will be protracted and probably not bring any benefit to the company within the horizon envisioned for the dam to reach operations in 2022.

The credit view continues to factor in EPM's guidance that 300 megawatts (MW) (phase 1) of the total 2,200 MW of installed capacity will be in operations by early 2022, versus the initial schedule of late 2018, that it will receive insurance coverage proceeds related to damages of $500-$550 million until the end of 2021, and that total capex for the Ituango Project will be of around $3.8-$4.3 billion, which represents a 34% increase over the initial budget. The delays and cost overruns have led the company to be free cash flow negative for several years and delayed the company's deleveraging trajectory.

As to the board of directors resignation, we understand there has been no direct infringement of the company's bylaws or formal corporate governance structure. The company's Chief Executive Officer is responsible for representing the company judicially and extrajudicially, and the decision to pursue damages against the consortium of contractors was not up to the board of directors. Nonetheless, the board´s resignation exposes a fragile corporate governance structure under the 99.9% ownership by the Municipality of Medellin, and the company´s heightened exposure to political risks. In fact, the mayor holds ample power to nominate all remaining eight members of the board without major restrictions.

The weak board structure has been the same for several years, but in practice, and pursuant to a General Agreement for Corporate Governance in place since 2007, the Municipality has historically exercised its ownership power solely through the board of directors. These events may also pose challenges for EPM to assemble a new board of directors of high quality and credibility.

Headquartered in Medellin, Colombia, EPM is a multi-utility vertically integrated public service group operating in energy generation, distribution and transmission; natural gas distribution; water and sanitation; solid waste management; and telecommunications. For the 12 months ended March 2020, 75% of the company's EBITDA was derived from the electricity distribution (43%) and energy generation (32%) segments. The company benefits from 35 power generation plants with installed generation capacity of 3,584 MW. EPM also serves 6.6 million consumers in the distribution segment. Apart from providing its own services, the group also holds ownership stakes in controlled and noncontrolled subsidiaries located in Colombia and abroad (mainly Chile, Panama, El Salvador, Guatemala and Mexico).

EPM's credit quality reflects its large scale and consolidated revenue base diversified by sector, with the more stable electricity distribution business being the most important EBITDA contributor, with a share of 43% up until March 2020. We expect leverage to increase such that debt to EBITDA reaches 5.5x by year-end 2020, as a reflection of lower EBITDA generation and higher indebtedness to support liquidity. The reduction in EBITDA is a function of lower demand for services and rising costs amid weaker hydrology. We expect EBITDA and cash flow to resume strongly in 2021, reestablishing the deleveraging trajectory such that debt to EBITDA declines to approximately 4.0x by year-end.

Bernardo Costa, *VP-Senior Analyst*
Moody's Investors Service
bernardo.costa@moodys.com
+55.11.3043.7353

Yug Santana, *Associate Analyst*
Moody's Investors Service
yug.santana@moodys.com
+55.11.3043.7307

Alejandro Olivo, *Associate Managing Director*
Moody's Investors Service
alejandro.olivo@moodys.com
+1.212.553.3837

Consent order related to Capital One's 2019 data breach will strengthen bank's cyber risk management

Originally published on 12 August 2020

On 6 August, the US Office of the Comptroller of the Currency (OCC) assessed an $80 million civil penalty against Capital One Financial Corporation (CapOne, Baa1 stable) and entered a consent order with the bank to remediate risk management deficiencies highlighted in a 2019 breach of customer data. While the fine is credit negative for CapOne because it negatively affects the company's reputation and marginally its profits, the consent order will strengthen the bank's cyber risk management, a credit positive.

The OCC's actions emphasize the critical importance for banks of safeguarding sensitive personal information, and the risks in adopting new technologies to improve operating efficiency and meet customer expectations. While the OCC said that it encourages responsible innovation, it also emphasized that sound risk management and internal controls are critical.

CapOne has been a leader in migrating its legacy information technology (IT) operations to the cloud. While the company has said that it believes that the data breach was unrelated to the cloud migration, the OCC found that the bank failed to establish appropriate risk management for the cloud operating environment. The OCC also concluded that, beginning in or around 2015, the bank failed to establish effective risk assessment processes before the IT cloud migration. The OCC also listed deficiencies in inadequate internal audit and board oversight, but said that it viewed the bank's customer notification and remediation efforts positively.

The $80 million fine is modest compared with penalties in other major data breaches, and equals only 1.2% of the bank's 2019 pretax income. In comparison, the UK's Information Commissioner's Office (ICO) in 2019 proposed a $230 million fine against British Airways, Plc (Ba1 negative), equaling 9.9% of the company's $2.3 billion of pretax income. That same year, the ICO proposed a $125 million fine against Marriott International, Inc. (Baa3 negative), equal to 4.9% of the company's $2.5 billion in pretax income. Both companies had revealed data breaches in late 2018 and were fined under the European Union's General Data Protection Regulation. The CapOne fine is also far lower than the $700 million settlement that Equifax Inc. (Baa2 stable) concluded with the US Federal Trade Commission, the Consumer Financial Protection Bureau and 50 states and territories in 2019. That settlement amounted to almost all of Equifax's 2019 pretax income of $704 million.

CapOne has a strong track record in investing in technology and increasing digital engagement with consumers, which in our view has and will continue to serve the bank well. Among the large US banks, CapOne is a leader in fully transitioning to the cloud and is in the process of winding down its legacy data centers by the end of the year. With data centralized, the cloud environment will enhance the bank's underwriting and analytics, allow it to deploy new digital products and services more rapidly, and reduce costs and improve operating efficiency.

As other banks continue to migrate to a cloud operating environment, the challenges that CapOne experienced will likely give them pause about the risks, and the security and compliance requirements. Therefore, we expect that this data breach will slow other banks' cloud migration efforts.

In 2019, an unauthorized outside individual obtained certain personal information from the bank's cloud technology operations. The data affected roughly 106 million credit card applicants and customers in the US and Canada. Most of the sensitive information was tokenized, rendering it essentially useless to unauthorized individuals, limiting customer harm.[1] In addition, CapOne has said that it is unlikely that the individual used the information for fraud or disseminated it. The individual involved was arrested shortly after the discovery of the breach.

Endnotes

1 The Social Security numbers and bank account numbers of a small minority of CapOne's US credit card customers were compromised. About 1 million Social Insurance numbers of Canadian card customers were also compromised. However, no credit card account numbers or login credentials were compromised.

Warren Kornfeld, *Senior Vice President*
Moody's Investors Service
warren.kornfeld@moodys.com
+1.212.553.1932

Matt Cohen, *Associate Analyst*
Moody's Investors Service
matt.cohen@moodys.com
+1.212.553.0814

Leroy Terrelonge, *AVP-Cyber Risk Analyst*
Moody's Investors Service
leroy.terrelonge@moodys.com
1.212.553.2816

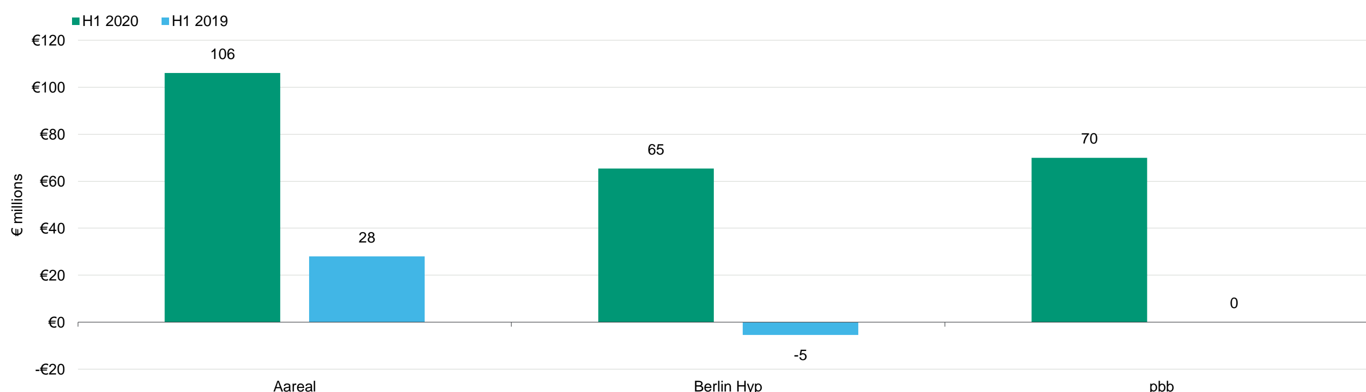
Andrea Usai, *Associate Managing Director*
Moody's Investors Service
andrea.usai@moodys.com
+1.212.553.7857

German property-lending banks report first-half profits despite boosting loan loss provisions

On 12 and 13 August, Aareal Bank AG (Aareal, A3/A3 negative, baa3[1]), Berlin Hyp AG (Berlin Hyp, Aa2/Aa2 stable, ba1) and Deutsche Pfandbriefbank AG (pbb) reported first-half profits, despite a material increase in loan loss provisions compared with the first half of 2019 to prepare for coronavirus-induced nonperforming loans (NPLs). Additionally, the specialised commercial real estate (CRE) banks kept their capital buffers intact.

Aareal reported a pretax profit of €13 million after €106 million of loan loss provisions; Berlin Hyp reported a pretax profit of €6 million after €65 million of loan loss provisions; and pbb reported a pretax profit of €31 million after €70 million of loan loss provisions. Despite this significant boost in credit risk costs, which equate to around 50 basis points annualised for Berlin Hyp and pbb, and close to 80 basis points for Aareal, all three CRE lenders were profitable because their first-half cost-to-income ratios – Aareal 59%, Berlin Hyp 49% and pbb 46% – are lower than the average rated German banks' cost-to-income ratio of 78% in 2019.

Exhibit 1
The three banks' first-half credit risk costs rose despite unchanged volume of NPLs
Loan-loss provisions



Sources: Company reports and Moody's Investors Service

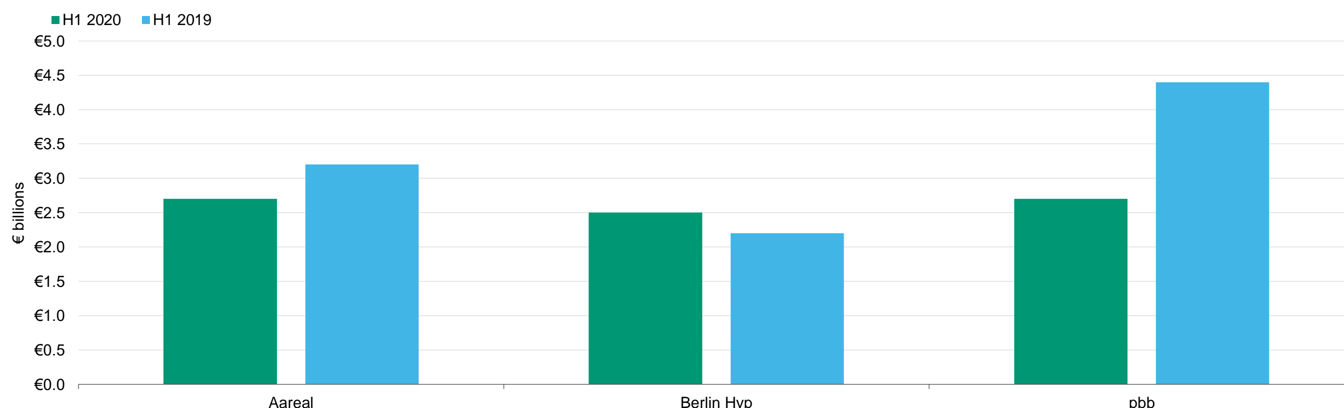
The Common Equity Tier 1 (CET1) capital ratio for Aareal increased to 19.8% in the first half from 19.6% at the end of 2019, Berlin Hyp's ratio fell to 13.1% from 13.3% as of year-end 2019, and pbb's CET1 capital ratio increased to 15.8% (excl. interim result, incl. full-year result 2019) from 15.2% at year-end 2019. Aareal Bank reported an NPL ratio of 3.7% as of July 2020, down from 4.2% at the end of 2019 after a portfolio sale of non performing assets. Berlin Hyp's reported NPL ratio fell to 0.7% as of half-year 2020 from 0.9% at the end of 2019, and pbb's NPL ratio was unchanged at 0.9%. The lower and stable NPL ratios give the banks strong portfolio quality ahead of a likely COVID-19-related weakening in asset quality.

New business in the real estate segment declined for pbb to €2.7 billion in the first half from €4.4 billion in the year-earlier period and for Aareal Bank to €2.7 billion from €3.2 billion. For Berlin Hyp, however, new lending business increased to €2.5 billion from €2.2 billion in the first half of 2019, reflecting diverging risk appetite and market dynamics in the banks' sector focuses.

Exhibit 2

New business varies in the group of banks

New lending



Sources: Company reports and Moody's Investors Service

We consider the CRE sector as having elevated risk, given its strong cyclicality. Currently, tourism/leisure and non-food retail, in particular, are exposed to the coronavirus shock, with a more medium-term effect expected for offices. Exposure to the higher risk subsectors varies among the banks, with Aareal Bank mostly invested in the tourism/leisure sector through its exposure to hotel properties – 35.7% of its new business volume in the first half of 2020 was in that sector.

Endnotes

1 The ratings shown are the banks deposit/senior unsecured or issuer ratings (where available) and outlook, and the baseline credit assessment.

Andrea Wehmeier, *VP-Senior Analyst*
Moody's Investors Service
andrea.wehmeier@moodys.com
+49.69.70730.782

Alexander Hendricks, CFA, *Associate Managing Director*
Moody's Investors Service
alexander.hendricks@moodys.com
+49.69.70730.779

Russia extends regulatory forbearance measures, a credit negative for banks

Originally published on 13 August 2020

On 10 August, the Central Bank of Russia (CBR) announced the extension of several regulatory forbearance measures that allow Russian banks to further postpone the classification of loans restructured amid the coronavirus pandemic as problem loans and hence delay the accrual of loan loss reserves on such loans. The central bank also lowered risk weights for consumer loans. The extended forbearance masks the full extent of deterioration in banks' solvency metrics and removes their incentive to accumulate additional capital buffers or use capital more efficiently, a credit negative.

By spreading losses over a longer time, the CBR's measures aim to prevent capital erosion at banks and facilitate their continued lending to the economy. The CBR is encouraging banks to continue pandemic-related restructuring of loans to individuals and small and medium-sized enterprises (SMEs) to the end of this year. Simultaneously, it is allowing banks to postpone the recognition of restructured loans as problem loans and delay accrual of loan losses on restructured loans until 1 July 2021, rather than the previous 30 September 2020 deadline. According to the CBR, banks had restructured approximately 3.5% of loans to individuals and 14% of loans to SMEs as of 1 July 2020.

For loans to large corporates, the CBR is maintaining its 30 September deadline for coronavirus-related restructuring activities subject to regulatory forbearance. However, it has extended the deadline for fully reserving for loan losses attributable to these restructured loans to 1 April 2021 from 30 September 2020. According to the CBR, Russia's systemically important banks (SIBs) restructured approximately 12% of all their loans to large corporates as of 29 July 2020.

If banks were to immediately accrue 50% loan loss reserves against all their restructured loans, incremental credit losses would be around 5% of systemwide gross loans, which would erode a quarter of total systemwide capital.

The CBR also lowered risk-weight requirements for unsecured consumer loans issued after 1 September 2020 (Exhibit 1). The countercyclical provision aims to encourage banks to continue issuing unsecured consumer loans even though household incomes fell sharply amid the pandemic and banks' appetite for risk has likewise declined.

Exhibit 1

Revised risk weights for consumer loans depend on the loan's annual percentage rate and borrower's payment-to-income ratio

Risk weights for loans issued starting 1 September 2020

		PTI range, %							
		(0-30]	(30-40]	(40-50]	(50-60]	(60-70]	(70-80]	(80+)	PTI not defined
APR range	(0-10]	100% (-30%)	100% (-30%)	100% (-30%)	110% (-50%)	130% (-40%)	150% (-40%)	180% (-30%)	110% (-50%)
	(10-15]	100% (-50%)	100% (-50%)	100% (-50%)	120% (-50%)	140% (-40%)	160% (-40%)	190% (-30%)	120% (-50%)
	(15-20]	120% (-50%)	120% (-50%)	120% (-50%)	160% (-50%)	190% (-40%)	200% (-40%)	230% (-30%)	160% (-50%)
	(20-25]	150% (-50%)	150% (-50%)	150% (-50%)	200% (-50%)	230% (-40%)	240% (-40%)	270% (-30%)	200% (-50%)
	(25-30]	190% (-40%)	190% (-40%)	190% (-40%)	240% (-40%)	260% (-30%)	280% (-20%)	300% (-20%)	240% (-40%)
	(30-35]	300%	300%	300%	310%	320%	330%	350%	310%
	(35+)	600%	600%	600%	600%	600%	600%	600%	600%

APR = annual percentage rate, PTI = payment-to-income ratio.
The percentages shown in brackets represent the size of reduction in the new risk-weight requirement compared with the risk-weight requirement previously applied to this loan category. Risk weights are used to define a bank's regulatory capital adequacy; different risk weights apply to consumer loans with different APR and PTI characteristics: the lower the risk weight applying to the loan, the less bank capital needs to be set aside against this loan.
Source: Central Bank of Russia

The CBR is also allowing banks to release RUB168 billion of capital buffers accumulated against unsecured consumer loans issued before 31 August 2019. The RUB168 billion additional capital could support around a 15% systemwide increase in the banks' consumer

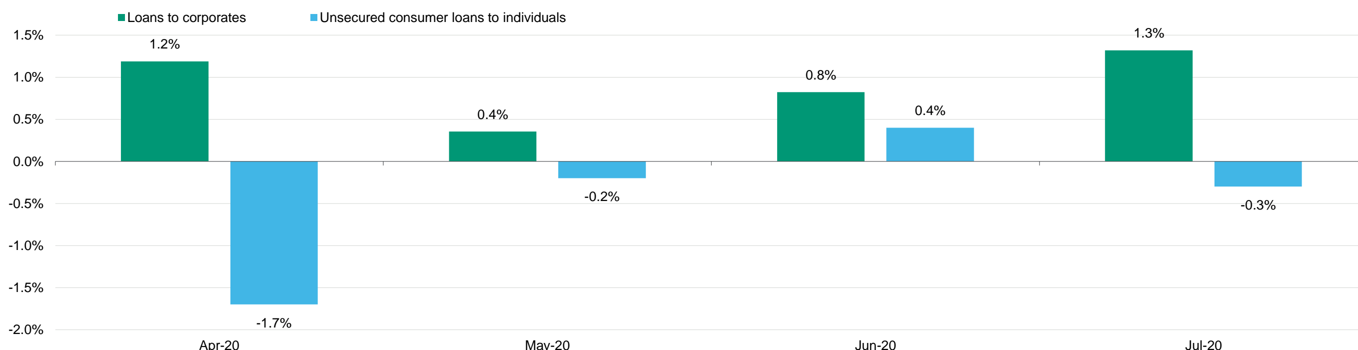
loan portfolio, although the CBR has not restricted how banks can use the released capital. As an alternative to loan growth, banks may opt to use freed-up capital to add to loan loss reserves for anticipated deterioration in asset quality.

According to CBR statistics, with the exception of mortgage lending, which the government's subsidised mortgage programme has boosted, all other loan segments have stagnated since the coronavirus pandemic began in March (Exhibit 2). Banks and borrowers remain risk-averse given the heightened uncertainty over global and domestic economic prospects.

Exhibit 2

Bank lending has stalled since the coronavirus pandemic began in March

Monthly increase in corporate and consumer loan books



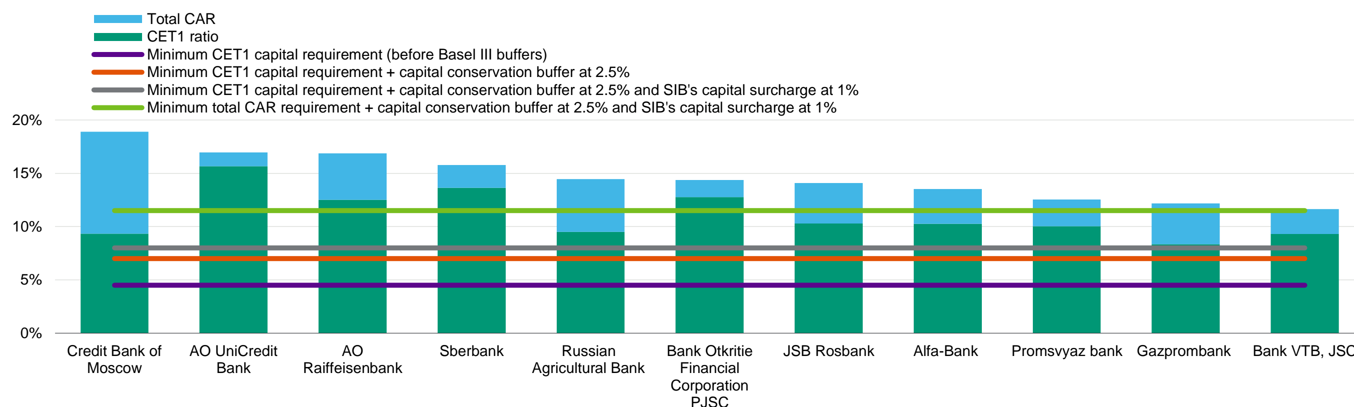
Source: Central Bank of Russia

Banks' reluctance to increase loan originations reflects their need to preserve capital should credit losses begin to erode their capital once the forbearance measures are phased out. The capital adequacy ratios of some Russian SIBs are already near statutory minimum capital adequacy requirements including Basel III capital buffers (Exhibit 3).

Exhibit 3

Russian SIBs' regulatory capital adequacy ratios

Data as of 1 July 2020



CAR = capital adequacy ratio, CET1 = Common Equity Tier 1 capital.

Sources: Central Bank of Russia and banks' financial statements prepared under local GAAP

Olga Ulyanova, *VP-Sr Credit Officer*
Moody's Investors Service
olga.ulyanova@moodys.com
+7.495.228.6078

Ekaterina Mitkina, *Associate Analyst*
Moody's Investors Service
ekaterina.mitkina@moodys.com
+7.495.228.6069

BLOM Bank's sale of Egyptian subsidiary would provide much-needed capital enhancement

On 13 August, United Arab Emirates (UAE)-based bank Emirates NBD PJSC (ENBD, A3/A3 negative, ba1[1]) confirmed early-stage negotiations with Lebanon-based BLOM Bank S.A.L. to buy its Egyptian subsidiary.

The sale would increase BLOM Bank's capital base and foreign-currency liquidity, a credit positive amid Lebanon's (C no outlook) deep economic, financial [2]and social crises. Lebanon's currency collapse and surging inflation are fuelling a highly unstable environment, which the government's 10 August resignation exacerbates. Delay forming a new government increases risks of social unrest and reforms needed to unlock critical official sector financing that would allow Lebanon to begin economic recovery.

In the country's uncertain environment, systemwide private-sector deposits declined $12.8 billion in the first five months of 2020 and by $15.7 billion or 9.1% in 2019, despite banks' informal capital controls.

The Egyptian subsidiary was one of the group's most profitable units last year. Although, BLOM Bank would sacrifice diversification, future growth and earnings, the sale could fetch a significant multiple over book value. We project real GDP growth of 3.2% for 2020 in Egypt (versus 5.6% in 2019), and although Egypt comprised 7% of BLOM Bank's consolidated assets as of 30 June 2019, the country contributed 12% of group profits.

For ENBD, the acquisition would have limited credit implications over the next 12-18 months, given the small size of BLOM Bank's Egyptian operations relative to ENBD. BLOM Bank Egypt's total assets of around $2.5 billion as of June 2019 equalled around 1.3% of ENBD's total assets of $189 billion as of 30 June 2020.

Over the longer term, the acquisition supports ENBD's strategy to have a greater presence in the region's large markets, including the UAE (the bank's domestic market), Saudi Arabia, Turkey and Egypt. The acquisition would increase ENBD's existing operations in Egypt, where the bank offers banking services to both individuals and corporate clients.

ENBD does not disclose the size of its Egyptian operations, but the bank's exposure to "other operations" was 2.7% of ENBD's total assets as of December 2019. Other operations include Emirates NBD Egypt, property management, operations and support functions.

Endnotes

1 The ratings shown in this report are ENBD's deposit rating, senior unsecured debt rating and Baseline Credit Assessment.

2 On 1 May, the Lebanese government officially requested IMF help following its default on its international bond on 16 March.

Effie Tsotsani, *AVP-Analyst*
Moody's Investors Service
effie.tsotsani@moodys.com
+44.20.7772.1712

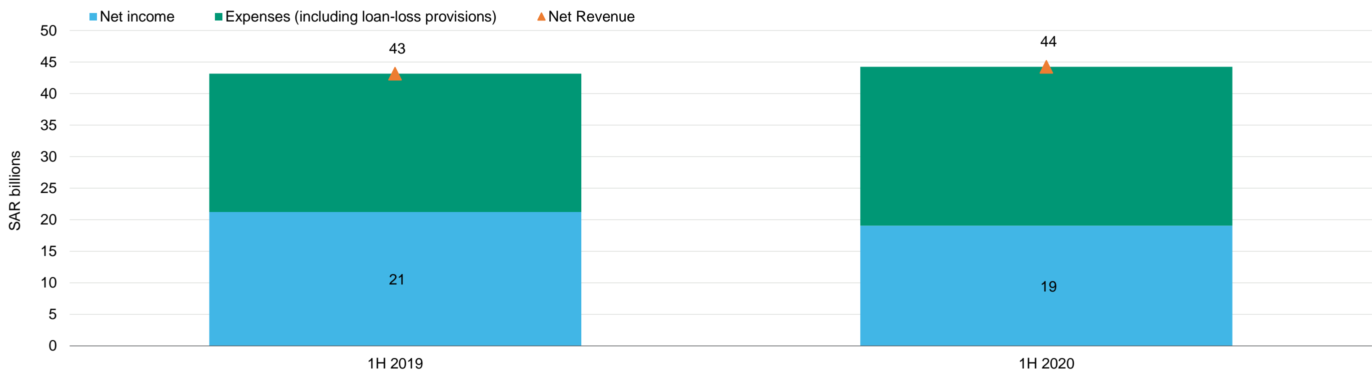
Mik Kabeya, *AVP-Analyst*
Moody's Investors Service
mik.kabeya@moodys.com
+971.4.237.9590

Saudi banks' first-half loan impairments offset increased revenue, decreasing profits 10% from year ago

By 11 August, 10 of the 11 publicly traded Saudi Arabian banks reported first-half aggregate profits of SAR19.1 billion, down 10% from SAR21.2 billion in first-half 2019.[1] The decline reflects higher loan impairments in anticipation of credit losses and weaker asset quality, a credit negative for the system.

Aggregate loan-loss provisioning for the first half increased to 0.93% of gross loans from 0.68% in 2019[2] and offset a 3% increase in net revenue (see Exhibit 1).[3]. In line with our expectation that the non-oil sector will contract to around 4% in 2020 from growth of 3.3% in 2019, we expect lower oil prices, reduced government spending and coronavirus-induced disruptions to further erode banks' asset quality over the next 12-18 months.

Exhibit 1
Saudi banks' income dropped primarily because of higher loan-loss provisions, despite stronger revenue

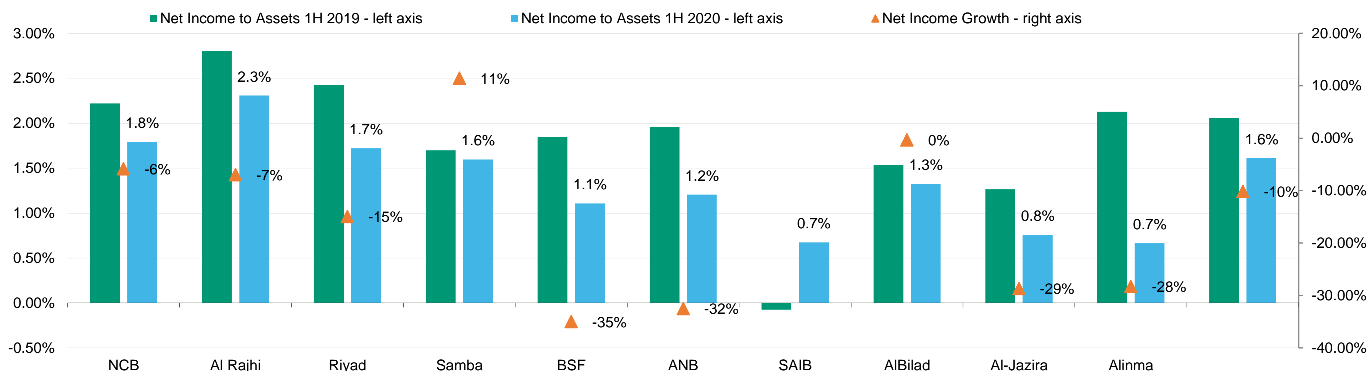


Sources: The banks and Moody's Investors Service

The aggregate ratio of net income to assets was strong at 1.6%, but down from 2.1% in first-half 2019 and 1.9% in 2019. All Saudi banks' ratio of net income to assets fell in the first half. Banque Saudi Fransi (A1 negative, a3[4]), Arab National Bank (A2 negative, baa1), Bank Al-Jazira (Baa1 negative, baa3) and Alinma Bank were most affected: their first-half net income declined 28%-35% from first-half 2019 (see Exhibit 2). Bank Al-Jazira and Alinma Bank had the lowest ratios of net income to assets of 0.7%-0.8%, while Saudi Investment Bank's (A3 negative, Baa2) ratio was also low at 0.7% despite an increase in net income from last year.

Exhibit 2

All Saudi banks' ratio of net income to assets dropped in the first half of 2020, but to varying degrees



NCB = National Commercial Bank; BSF = Banque Saudi Fransi; ANB = Arab National Bank; SAIB = Saudi Investment Bank.
Sources: The banks and Moody's Investors Service

The 3% increase in first-half aggregate net revenue versus first-half 2019 reflects a 4% increase in net interest income that offset a 3% drop in noninterest income over the same period. Continued balance sheet growth, with 8% first-half loan growth and 14% investment portfolio growth, drove net interest income higher and offset lower lending and investment rates amid lower reference rates. Noninterest-bearing deposits from the central bank, which kept the banks' cost of funding low, mainly funded the growth.

Higher loan growth was supported by continued strong growth in mortgage loans and a temporary spike in consumption before a 1 July value-added tax increase to 15% from 5% previously. High loan growth was in spite of lower economic activity because of coronavirus-related containment measures. Banks' aggregate loan-to-deposit ratio was 87% as of 30 June, versus 84% in December 2019, as loan growth outpaced the 4% growth in deposits.

The decline in profits and increased loan impairments were less severe than in other Gulf Co-operation Council (GCC) countries. In the United Arab Emirates (UAE), for example, aggregate profit for the four largest banks was down 36% and loan impairments to gross loans increased by 77 basis points to 1.60%. We expect additional provisions for Saudi banks in the coming quarters, although both profit effects and loan impairments will likely remain below GCC peers such as the UAE, reflecting the stronger historical performance and resilience of the Saudi banking system.

The banks preserved their strong capital buffers, with an aggregate shareholder ratio of 14.1% as of June 2020, compared to 14.5% as of December 2019. We expect Saudi banks to maintain a high capital ratio, which are among the strongest in the GCC.

Endnotes

1 Saudi British Bank is the only publicly listed bank yet to report financials for the first half of 2020.

2 Aggregate loan-loss provisioning is for seven banks that reported full financial statements.

3 Net revenue includes net interest income and noninterest income

4 The bank ratings shown in this report are banks' deposit rating and Baseline Credit Assessment.

Christos Theofilou, CFA, *VP-Senior Analyst*
Moody's Investors Service
christos.theofilou@moodys.com
+357.2569.3004

Ashraf Madani, *VP-Senior Analyst*
Moody's Investors Service
ashraf.madani@moodys.com
+971.4.237.9542

Brazil's allowance of exchange-traded depositary receipts is credit positive for B3

Originally published on 12 August 2020

On 11 August, Brazil's capital markets regulator, Comissão de Valores Mobiliários (CVM) announced that from 1 September onward, Brazilian companies listed abroad will be able to issue Brazilian Depositary Receipts (BDRs). The change is credit positive for B3 S.A. – Brasil, Bolsa Balcao (Ba1 stable), Brazil's vertically integrated stock market and centralized clearing house operator, because it will be able to earn fees from the trading, clearing and settlement of these new products in Brazil.

Since 2018, several Brazilian companies, including PagSeguro Ltd, XP Inc. and StoneCo Ltd., have had initial public offerings (IPOs) in US stock markets, depriving B3 of the largest Brazilian companies' IPOs. Together, these companies issued a total of $6.7 billion of shares in 2018 and 2019, equating to 26% of total equity issuance on B3 in 2018 and 2019.

Following the regulatory change in issuance rules, Brazilian companies listed abroad will be able to list, trade and clear BDRs on B3, giving companies a presence in Brazil's growing equity markets and deepening investor base. Previously, only companies with operations outside of Brazil could offer BDRs. With B3 acting as the buyer to every seller and the seller to every buyer for financial securities (shares, derivatives and contracts) traded in Brazil's financial markets, it will be able to grow its revenue from these new BDRs, a credit positive.

The decision comes at a positive moment for Brazil's equity market: the iBovespa stock index is up 61% from its low on 23 March 2020 and IPOs and secondary offerings have resumed in the past couple of months. The investor base also has deepened: the number of retail investors with depositary accounts at B3 increased more than 130% year over year as of 30 June and they now account for 24% of the cash equities. Equity trading volume increased in the first half of 2020, with average daily trading volume (ADTV) for equities rising to BRL28.9 billion in the first half, a 67% jump from BRL17.3 billion for the whole of 2019, when B3 reported its highest-ever revenue.

CVM will also now allow retail investors to buy the BDRs of Level 1 companies and the creation of BDRs linked to exchange-traded funds and foreign-currency debt securities issued abroad by Brazilian listed companies. In addition to increasing the number of products on B3's exchange, the new measures broaden the potential investor base for its products. We expect Brazil's low interest rate environment will continue to propel retail and institutional investment in equities and other high-return investments such as the BDRs versus lower-return fixed-income products. For the six months that ended 30 June, BRL81 billion flowed into equity and multi-market funds as investors sought yield, while fixed-income fund outflows were BRL92 billion.

The CVM regulatory change was the result of a public consultation with market participants announced in December 2019. For B3, the launch of the these new BDRs and other BDRs form a key part of B3's strategic initiatives underway since 2018 that aim to develop new products and services

Farooq Khan*, AVP-Analyst*
Moody's Investors Service
farooq.khan@moodys.com
+55.11.3043.6087

Cathay Life's investment loss on Bank Mayapada is credit negative

Originally published on 14 August 2020

On 10 August, Cathay Life Insurance Co., Ltd (financial strength A3 negative), Taiwan's largest life insurer by premiums, announced that it recognized an additional before-tax TWD8.8 billion ($299 million) of investment losses (TWD7 billion after-tax) in first half 2020 on top of the before-tax losses of TWD5.2 billion (TWD4.2 billion after-tax) booked earlier in the year, for its 37.3% stake in Bank Mayapada Internasional, Tbk in Indonesia. The loss is credit negative to Cathay Life because it reduced the insurer's earnings in first half 2020 and demonstrates to the high execution risks from the insurer's expansion in Southeast Asia (see exhibit).

Cathay Life's major strategic equity investments in Southeast Asia

Investees	Purchase cost (TWD billions)	Purchase cost as a % of Cathay Life's shareholder equity at the end of June 2020	Cathay Life's stake
Rizal Commercial Banking Corporation (Baa2/Baa2 stable, baa3)	15.7	2.5%	23.4%
Bank Mayapada Internasional, Tbk	13.3	2.2%	37.3%

The ratings shown for Rizal are its deposit rating, senior unsecured rating and Baseline Credit Assessment.
Sources: The company and Moody's Investors Service

The TWD11.2 billion after-tax investment loss in total recognized is significant to Cathay Life's profitability because it is equivalent to around 37% of its net profit (before the loss recognition) in first half 2020. This is despite the insurer's net profit, including loss recognition, only declining by 2% in first half 2020 from a year ago and growing by 29% year on year in the first seven months of 2020 (unaudited). The earnings growth mainly reflects higher investment gains from the rebound in equity prices and bond disposals. The insurer still has a high reliance on investment income, which exposes its earnings to capital market movements and underpins our negative rating outlook under a prolonged period of low interest rates. Therefore, this investment loss remains a key drag on the insurer's earnings in 2020.

Cathay Life has written off the full carrying amount of this equity investment via this provision; therefore, it will not incur further losses from its existing stake. The investment loss could also be potentially reversed in the future if financial conditions at Bank Mayapada improve.

The loss is only moderate for Cathay Life's capitalization at this stage. The after-tax loss accounts for less than 2% of the insurer's shareholders' equity (before loss recognition) of TWD629 billion at the end of June 2020. Cathay Life maintains a solid capitalization, with a risk-based capital ratio higher than peers, at more than 345% at the end of June 2020.

Cathay Life is still in active talks with Indonesian governmental authorities on the bank's improvement plan. However, further capital injections to Bank Mayapada from Cathay Life is unlikely considering that such investments would have to be made by Cathay Financial Holding Co., Ltd (Baa1 negative) or Cathay United Bank Co., Ltd. (A2 stable, baa2[1]) as Cathay Life may no longer be approved to make such additional investments by the Taiwan regulator.

The investment loss shows the inherent risks in Cathay Life's overseas expansion and the potential capital needs to support expansion. Although the insurer's strategic equity investments in Southeast Asian banks are small compared with its overall capital base, the losses from such investments can be significant.

The operational pressure at Bank Mayapada follows allegations that one of the bank's customers was involved in corruption related to a local state-owned insurer and reports of compliance deficiencies identified by regulator's audit. This has brought reputational damage to the bank and shrunk its deposit base. To better address potential governance issue at investees, we expect Cathay Life to strengthen its oversight and involvement in investees' operations, despite being a minority shareholder.

Despite this incident on Bank Mayapada, we expect Cathay Life and its parent to remain committed to overseas expansion to tap new growth opportunities given the relatively more mature development of financial markets in Taiwan.

Endnotes

1 The ratings shown are Cathay United's deposit rating and Baseline Credit Assessment.

Kelvin Kwok, CFA, *Analyst*
Moody's Investors Service
kelvin.kwok@moodys.com
+852.3758.1516

Mike Liu, *Associate Analyst*
Moody's Investors Service
mike.liu@moodys.com
+852.3758.1671

Sally Yim, CFA, *MD-Financial Institutions*
Moody's Investors Service
yatmansally.yim@moodys.com
+852.3758.1450

State of Sao Paulo's proposal to end indirect administration of 10 entities is credit positive

Originally published on 14 August 2020

On 12 August, Joao Doria, the governor of the Brazilian State of Sao Paulo (Ba2 stable), sent the legislative assembly a proposed reform that would discontinue the state's indirect administration of 10 entities and foundations. If approved, the reform would be credit positive because it would help the state to reduce the BRL10.4 billion cash financing deficit it expects for 2021 by increasing revenue and decreasing expenditures.

Responsibilities for these entities would be transferred to other departments of the administration, reducing the employees on the state's payroll. The reform also includes a 20% reduction in tax benefits granted to different sectors of the economy, which will increase tax collection, and a voluntary retirement program applicable for public employees hired before 1983.

The reform must be approved by September to take effect in 2021. With the reform, the state expects to cut 5,600 public jobs and generate a positive result of BRL8.8 billion in 2021.

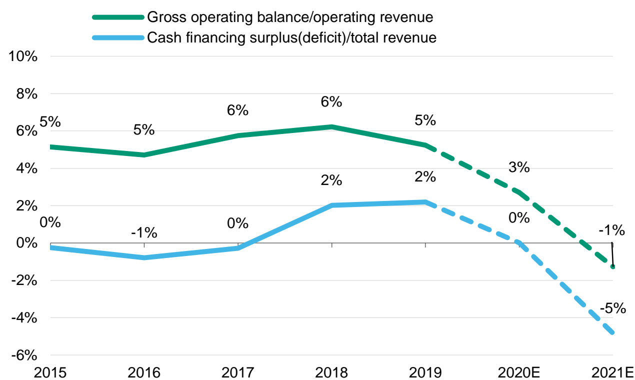
Since the onset of the coronavirus pandemic, we have revised our GDP forecast for Brazil for a 6.2% contraction this year, versus our previous forecast of 2% growth, followed by growth of 3.6% in 2021, versus our earlier estimate of 2.5% growth. We expect the state's fiscal position to deteriorate as a result of the pandemic, with economic contraction in Brazil translating into lower tax collections and a negative effect on operating and cash financing balances.

Federal government measures will alleviate the pandemic's economic and fiscal effects this year, but given the modest economic recovery in 2021, revenues will not fully recover to 2019 levels to offset the increase in expenditures. Absent any structural solutions, the state expects a cash financing deficit of BRL10.4 billion in 2021, or 5% of its total revenue. The reform would reduce the deficit to BRL1.6 billion for the year and support a recovery of its fiscal position.

The reform will help to address the state's rising personnel expenses and support its fiscal consolidation. As Exhibits 1 shows, the state's fiscal position will deteriorate without structural reforms. The state has high personnel costs, representing 42% of operating revenues in 2019 (see Exhibit 2). Personnel costs absorb a significant portion of the state's budgetary resources and limit its expenditure flexibility.

Exhibit 1

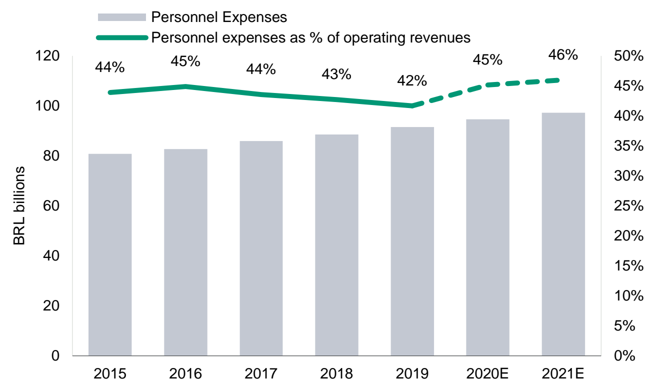
Absent of structural solutions, the State of Sao Paulo's fiscal position will deteriorate



Source: Relatorio Resumido da Execucao Orcamentaria

Exhibit 2

Personnel expenses absorb a relevant portion of state's budgetary resources



Source: Relatorio Resumido da Execucao Orcamentaria

On March 2020, the state approve a pension reform for its public workers aimed at controlling rising personnel expenses. The reform implemented changes to the state's unfunded pension system and included increases to the minimum retirement age to 65 years from 62 years for men and to 60 years from 55 years for women. The measures also raised to 14% from 11% the contributions from wages from active and inactive workers to the pension system, and placed limits on pension benefits. The state government estimates that the reform will result in total savings of BRL32 billion for the state over the next 10 years.

The State of Sao Paulo has a well-established record of operating surpluses, underpinned by prudent financial practices and sustained revenue growth. Still, the state has less room to continue absorbing rising pension costs, given its already-high level of indebtedness and a 200% limit on the ratio of total debt to revenue established by Brazil's Fiscal Responsibility Law. In 2019, the state's indebtedness was 145%.

Nicole Salum, *Analyst*
Moody's Investors Service
nicole.salum@moodys.com
+55.11.3043.7350

Alejandro Olivo, *Associate Managing Director*
Moody's Investors Service
alejandro.olivo@moodys.com
+1.212.553.3837

College sports postponements dampen revenue prospects, although interruption in debt payments is unlikely

Originally published on 12 August 2020

On 11 August, the Big Ten and Pac-12 conferences announced the postponement of fall college sports, most prominently football, as the coronavirus continues to hurt higher education's revenue prospects. The moves by two of the so-called “Power Five” conferences follows the Mid-American Conference canceling its fall sports. Football's dominant role in generating athletic revenue means a potential material revenue shock for athletic departments. In some cases, expense management will not be able to fully offset the revenue losses. However, we expect university leadership to provide extraordinary support to continue paying debt service for athletic-related facilities, given the strategic importance of sports to universities.

More broadly, the strength and agility of governance and management, including in responding to public health concerns and maintaining a balance between a long-term sports strategy and the near-term revenue disruption, will help determine the credit impact on a university. Athletic expenses have grown significantly in recent years, including certain fixed costs such as debt service, which will impact universities' ability to adjust to the disruption. Budget difficulties at athletic departments will add to the financial strains facing universities, including a tuition revenue pinch, reduced state funding and incremental expenses to combat the coronavirus.

How the coronavirus spreads will affect universities' willingness and ability to conduct other intercollegiate competition during the 2020-21 academic year, including basketball.

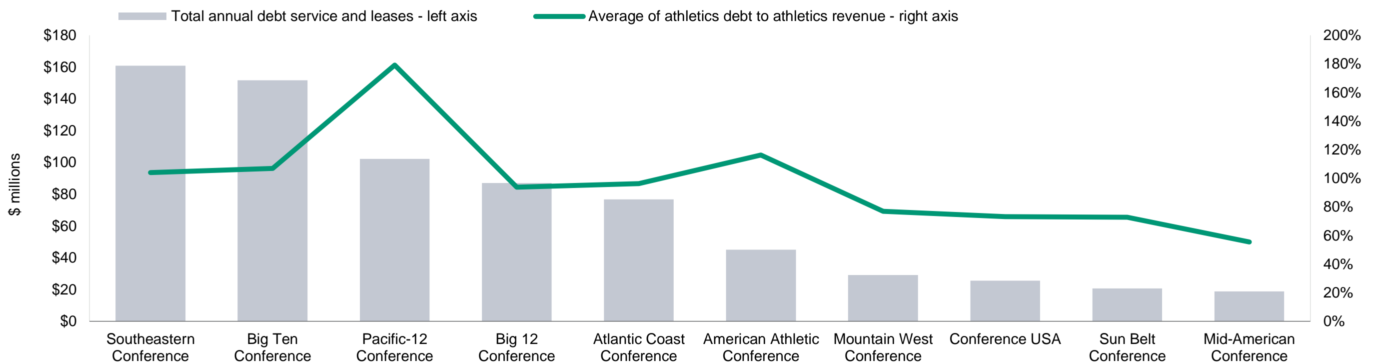
The strategic importance of college sports to universities over the long term will prompt them to deploy financial reserves to close coronavirus-induced athletic budget gaps. The response is especially resonant among universities with the largest athletic debt exposure. Given the revenue shocks, many athletic departments will not be able to cover debt service with net revenue from recurring operations, prompting the need to fill the gap from appropriate auxiliary and/or other reserves. In many cases, this is likely to take the form of internal loans that the athletic departments will need to repay the university over time.

Athletics is more capital intensive than higher education generally. For public higher education overall, the median debt to operating revenue was 58%. For schools competing at the NCAA Division I Football Bowl Subdivision level with debt, the ratio of athletics debt to athletics revenue was 66% in 2018 (see Exhibit 1). Facilities expenses, including debt service, across Division I public universities drove the greatest dollar amount increase between 2013 and 2018 with a 54% increase across the period and growth to $2.3 billion in 2018.

Exhibit 1

Total annual debt service and leases shows great variation across the largest conferences

Public university members of Division I Football Bowl Subdivision conferences



Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information (CAFI) Database

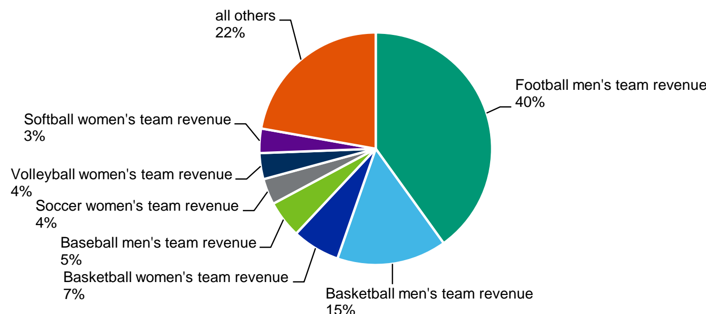
While many universities have used broad revenue pledges or general obligation debt to fund athletic facilities, some use limited-pledge athletic revenue bonds to secure debt that funds athletic investments. Some of the limited-pledge athletic bonds will fail to meet covenanted debt service coverage requirements from pledged revenues in fiscal 2021, with the university's response determining impact on credit quality. Failure to meet debt service coverage covenants may be an event of technical default, and could require use of consultants, but is not a payment default. Also, while some of the limited-pledge bonds have debt service reserve funds that could be used to pay debt service, we expect universities will avoid tapping such funds and instead find other ways to support debt service. A draw on a debt service reserve fund would likely have negative credit ramifications unless the university took immediate offsetting action to replenish.

Universities have become increasingly reliant on media revenue, mostly for football and basketball, to support sports programs. Football is the largest contributer to athletic revenue sectorwide, amounting to $5.8 billion in fiscal 2018, or 40% of total athletic revenue (see Exhibit 2). The football postponements follow the loss of the NCAA basketball tournament in the spring; basketball accounted for 15% of 2018 revenue.

Exhibit 2

Football accounted for the bulk of college sports' $14.6 billion revenue

Breakdown by revenue source, 2018



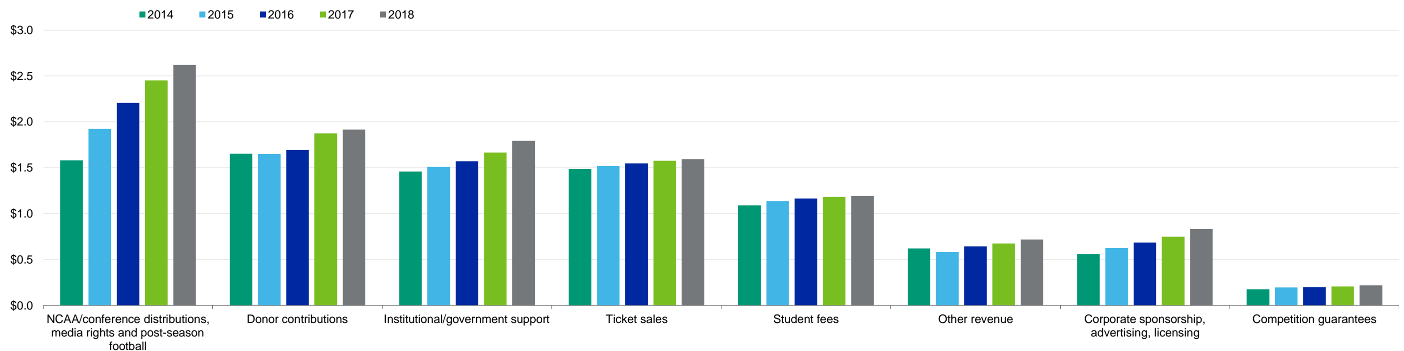
Source: US Department of Education, Equity in Athletics

While multiple sources of revenue are at risk from college sports cancellations, media rights have been the largest and fastest growing source (see Exhibit 3). The lack of ticket sales will also contribute to sharp revenue declines. While some donor support will continue, a material portion of the support is tied to seating priority programs. Donor support may also wane with potential disruptions in

household income, tax changes and booster disinterest because of canceled seasons. Student fee revenue will vary not only with enrollment but also decisions regarding potential refunds or rebates of fee revenue.

Exhibit 3

Over the last half decade, college sports have seen outsized revenue growth tied to media content
$ billions



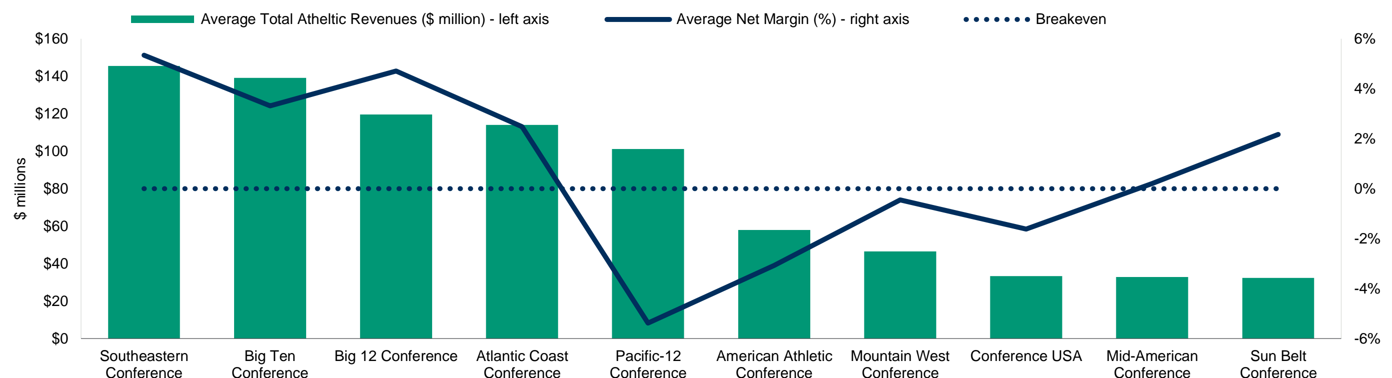
Data for Division I public colleges and universities.
Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information (CAFI) Database

The revenue shocks will curb universities' operating performance and compound an already difficult expense environment on many campuses tied to challenges with tuition and auxiliary revenue as well as state funding. Measuring the profitability of athletic departments is difficult with many material transfers made between universities and their athletic departments each year, combined with uneven cost allocation models. With that caveat, median athletic department profitability ran at a break-even basis in 2018, a relatively strong revenue year. Of Division I public universities, 37% reported expenses greater than revenues, with a median operating deficit of 3% for that subset.

Deficit athletic operations don't necessarily mean sports programs are not supportive of the universities' credit profiles because sports can heighten university brand awareness, aid in enrollment management and enhance alumni engagement and fundraising. Operating health has varied across athletic conferences as shown in Exhibit 4, with conferences with typically higher athletic revenues tending to have stronger operating performances. Compensation for coaches as well as other athletic support and administrative expenses among NCAA Division I members make up the largest portion of the expense base for a combined 35% and will be a focus for expense management efforts in fiscal 2021. With games canceled, universities will save some money on game day operations and travel expenses.

Exhibit 4

Members of the largest athletic conferences tend to have stronger operating performances
Average 2018 revenue and performance for public universities by conference



Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information Database

Dennis M. Gephardt, *VP-Sr Credit Officer*
Moody's Investors Service
dennis.gephardt@moodys.com
+1.212.553.7209

Susan I Fitzgerald, *Associate Managing Director*
Moody's Investors Service
susan.fitzgerald@moodys.com
+1.212.553.6832

Jared Brewster, *AVP-Analyst*
Moody's Investors Service
jared.brewster@moodys.com
+1.212.553.4453

Kendra M. Smith, *MD-Public Finance*
Moody's Investors Service
kendra.smith@moodys.com
+1.212.553.4807

CREDIT IN DEPTH

The causes of sovereign defaults

Originally published on 13 August 2020

Summary

The increase in sovereign debt levels resulting from the coronavirus pandemic and global economic recession is prompting investor questions about the role of debt levels in driving sovereign default risk. In this report, we update our 2010 study to offer perspective on the drivers of sovereign defaults and the evolution of debt metrics around default.

» **There have been 42 sovereign bond defaults since 1997, 21 of which took place since 2010.** Overall, 17% of defaults were caused by chronic economic stagnation, 36% by political or institutional weaknesses, 33% by high debt burdens and 14% by banking crises. The number of defaults caused by banking crises decreased in the last decade, while those resulting from institutional weaknesses and high debt burdens increased.

» **Sovereign defaults occur during environments of severe stress**. Economic contractions, banking crises, currency crises or major shocks such as natural disasters have accompanied all sovereign defaults. Overall, recessions accompanied 88% of the defaults and systemic banking or currency crises 55% of defaults.

» **ESG risks have contributed to all four default categories and have played a role in 36% of sovereign defaults since 1997.** Hurricane damage played a significant role in rising debt levels in the Caribbean region and has directly triggered several defaults. Governance risks have contributed to a number of defaults. The coronavirus pandemic, a social risk under our ESG framework, has directly triggered two defaults so far and will have substantial implications for public health and safety globally.

» **Default risk rises as debt burdens rise, but a high debt-to-GDP ratio is neither a necessary nor a sufficient condition for sovereign default.** The historical record shows that the ability of countries to manage debt crises depends not only on their debt levels, but on their economic resilience, quality of political institutions and structure of debt. Sovereigns with moderately low debt levels have defaulted when they had poor economic prospects, weak institutions and/or a large share of foreign-currency debt.

» **Debt repayment capacity is better correlated with default risk than debt levels.** Past defaulters have had a high share of foreign-currency debt, an average of around 70% of total debt in the year before default. They also have had high debt servicing costs, with interest payments to revenue averaging 18% in the year before default.

» **There is some correlation between causes of default and recovery rates.** Sovereign defaults resulting from banking crises recovered on average 61%, while defaults caused by chronic economic stagnation recovered on average 41%. But recovery rates vary widely, ranging from 17% to 95%.

Click here for the full report.

Podcasts and Videos

Podcast: Focus on Finance - A new series, 10 August 2020

Hosted by Danielle Reed of the Financial Institutions team, the new Focus on Finance podcast series provides insight on developments within the banking, insurance and asset management sectors. From the impact of tech disrupters and cyber risk, to the ongoing effects of lower-for-longer interest rates and ESG considerations, Danielle and guests will deliver critical analysis.

Podcast: Focus on Finance: Episode 1 - Pandemic amps up banks' cyber risk, jolts money fund markets, 12 August 2020

Alessandro Roccati from the banking team explains how coronavirus-driven demand for contactless digital financial services, along with remote work, are raising the cyberthreat to banks (begins at 8:21). Plus, Steve Tu of the asset management team looks at how the latest US government intervention in money markets could signal an eventual phaseout of institutional prime funds (begins at 1:45).

Related reports: *Money Market Funds – US: Most recent intervention could mark a turning point for institutional prime funds*and *Financial Institutions – Cross Region: Cyber risk rises as coronavirus drives increased digital banking and remote work*

RECENTLY IN CREDIT OUTLOOK

Articles in last Thursday's Credit Outlook

NEWS & ANALYSIS

Corporates

- » GTT Communications' delayed filing of second-quarter results is credit negative
- » PetVet's largely debt-financed acquisition of MAVANA increases leverage, a credit negative
- » China State Construction International's disposal of port joint venture is credit positive
- » GPT Group's first-half net loss is credit negative, but results also show benefits of diversity

Banks

- » Loan-payment deferrals mask US banks' deteriorating asset quality
- » Barings BDC's acquisition of MVC Capital increases asset quality risks but also potential returns
- » Turkish lira falls to record low against US dollar, a credit negative for the country's banks

Sovereigns

- » Heightened tensions around Belarus' presidential election increase political risks, a credit negative
- » Erosion of Turkey's reserves heightens risks to economy and public finances
- » Lebanon government's resignation is likely to further delay reform, extend economic and social devastation

US Public Finance

- » Approval to reopen New York's schools marks credit-positive step in state's economic recovery

CREDIT IN DEPTH

- » FAQ on the evolution of credit risks related to G-20's debt service suspension initiative

Click here for last Thursday's Credit Outlook.

Editors

Jay Sherman, Elisa Herr, Andrew Bullard, Julian Halliburton and Phil Macdonald

© 2020 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S INVESTORS SERVICE DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S INVESTORS SERVICE CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from $1,000 to approximately $2,700,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1241640