

BANGKOK EXPRESSWAY AND METRO PLC

No. 76/2018

15 June 2018

CORPORATES

| | |
|------------------------|--------|
| Company Rating: | A |
| Issue Ratings: | |
| Senior unsecured | A |
| Outlook: | Stable |

Company Rating History:

| Date | Rating | Outlook/Alert |
|----------|--------|---------------|
| 05/04/16 | A | Stable |

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RATIONALE

TRIS Rating affirms the company rating and the ratings of senior unsecured debentures of Bangkok Expressway and Metro PLC (BEM) at "A". The ratings reflect BEM's strong business profile, supported by steady operating cash flow, and the growth prospects in the mass rapid transit (MRT) segment. The ratings also take into consideration uncertainty over the renewal of the concession for the urban sector expressway which will expire in 2020, plus rising leverage from new investments in MRT projects.

KEY RATING CONSIDERATIONS

Reliable operating cash flow

BEM's strong business profile is supported by its steady operating cash flow. This is due mainly to the stable performance of the expressway segment. The average daily traffic volume on the expressway network grew by an average of 2.9% per year during 2012-2017. For the first five months of 2018, the daily traffic volume averaged 1.2 million trips per day and the daily toll revenue averaged Bt27.62 million per day.

Uncertainty over urban sector expressway concession renewal

The main risk associated with the expressway segment is the uncertainty surrounding the Second Stage Expressway (SES) concession (Sectors A, B, and C) which is ending in 2020. The terms and conditions of the concession agreement state the concession is renewable twice with each renewal lasting 10 years. However, the terms of the renewed concession are subject to negotiation between BEM and the Expressway Authority of Thailand (EXAT). The new terms might affect BEM's earnings profile. About 40% of revenue and over 50% of earnings before interest, taxes, depreciation, and amortization (EBITDA) are from the urban sector expressways.

Growth prospects in the MRT segment

Ridership on BEM's existing MRT Blue Line has increased continuously, supported by shifts in demographics and new population trends toward residential properties along the MRT lines. The connection of the Blue Line and the Purple Line starting in August 2017 also supported the rise in ridership. During 2012-2017, ridership grew by an average of 7.7% per annum. For the first five months of 2018, the average daily ridership was 301,896 trips and daily revenue averaged Bt7.63 million.

Ridership is expected to jump further after the extension of the MRT Blue Line is in full operation. The MRT Blue Line extension section 2, the Hua Lamphong-Lak Song segment, is scheduled to open in September 2019 and section 3, Tao Poon-Tapra segment is scheduled to open in March 2020. In addition, the government is pushing for an integrated mass transit system. This will benefit BEM. As an experienced and equipped operator, BEM is in an advantageous position to win future operating concessions in the government's comprehensive mass transit plan. Furthermore, the strategic position of the MRT Blue Line as a circle line benefits BEM as it will receive feeders from other lines.

Operating margin will gradually decline

BEM's solid cash flow is supported by healthy profitability. In 2017, BEM reported Bt15,153 million in revenue, up 15.6% year-on-year (y-o-y). The rise in

revenue was mainly due to the openings of the MRT Purple Line and the Si Rat-Outer Ring Expressway (SOE), both opened in August 2016. For the first quarter of 2018, revenue increased by 4.1% y-o-y to Bt3,886 million.

The operating margin (operating income before depreciation and amortization as a percentage of sales) was healthy at 49.2% in the first quarter of 2018. However, profitability will decline because the concession calls for BEM to pay more remuneration to the Mass Rapid Transit Authority of Thailand (MRTA) every year. TRIS Rating treats the remunerations as an operating cost.

TRIS Rating's base-case forecasts BEM's revenue to grow at least 3% annually during 2018-2019. The operating margin is forecast to range from 40%-48%. In 2020, the growth in revenue and profitability are subject to the terms of the renewed expressway concession and performance of the MRT Blue Line once the extensions are in full operation.

Rising leverage

BEM's solid cash flow is weighed down by high financial leverage due to the capital intensive nature of its business. At the end of March 2018, the ratio of total debt (including provisions for land site acquisition in the expressway segment) to capitalization was 61.3%. When calculating the leverage ratios, TRIS Rating excludes a debt of approximately Bt13,000 million used for the investment in the mechanical and engineering (M&E) systems and the rolling stock of the MRT Purple Line. The debt is backed by the agreement with the MRTA, which stipulates that the debt will be paid back in 10 years. Nonetheless, the leverage will rise because BEM is investing in the MRT Blue Line extension project. BEM will invest around Bt18,500 million during 2018-2020. The ratio of total debt to capitalization will peak at 65%-68% during this period.

Adequate liquidity

BEM's liquidity profile is supported by steady operating cash flow and the financial flexibility it has by virtue of its investments in associated companies. For the first three months of 2018, the ratio of funds from operations (FFO) to total debt was 13.1% (annualized, from trailing 12 months) while the EBITDA interest coverage ratio stayed at 4.9 times (excluding interest income and expenses related to the MRT Purple Line debt).

Over the next 12 months, BEM's liquidity position will be adequate. BEM's primary funding needs are planned capital expenditures of Bt9,700-Bt10,000 million, scheduled debt repayments of approximately Bt4,800 million, and dividend payments forecast at Bt1,700-Bt1,900 million. Sources of funds include FFO estimated at least Bt5,800 million, cash and cash equivalents of Bt2,334 million at the end of March 2018, plus proceeds from divestment of Xayaburi Power Co., Ltd. in June 2018 of Bt2,065 million. Capital expenditures are expected to be funded mainly by bank loans and bond issues. In addition, BEM has financial flexibility from its investments in TTW PLC and CK Power PLC. The combined market value of the two investments was Bt15,196 million as of 13 June 2018.

RATING OUTLOOK

The "stable" outlook reflects TRIS Rating's expectation that BEM will maintain its strong operating performance, steady cash flows, and an acceptable degree of leverage.

RATING SENSITIVITIES

BEM's credit upside is limited, given the large debt-funded investments planned over the next three years and the uncertainty surrounding the renewal terms of the urban sector expressway concession. A credit downgrade will be triggered if the company's business profile weakens or its financial profile materially deteriorates such that the debt to capitalization ratio stays over 65% for a sustained period.

COMPANY OVERVIEW

BEM was established on 30 December 2015 through the amalgamation of Bangkok Expressway PLC (BECL) and Bangkok Metro PLC (BMCL). BEM was listed on the Stock Exchange of Thailand (SET) on 5 January 2016. BEM's major shareholder, as of April 2018, was CH. Karnchang PLC (CK), which held 29.98% of the outstanding shares.

BEM has three main lines of businesses: constructing and operating expressways, providing mass rapid transit service, and engaging in the commercial development related to its expressway and mass transit networks. For the first quarter of 2018, BEM reported revenue of Bt3,886 million, of which 65% was from the expressway segment, 31% from the mass transit segment, and 4% from the commercial development segment.

BEM built and operates the elevated Si Rat Expressway (the Second Stage Expressway System – or SES), the Udon Rattaya Expressway (Bang Pa In-Pak Kret Expressway, known as Sector C+), and the SOE. All the expressways are operated under 30-year Build-Transfer-Operate (BTO) concessions awarded by the EXAT. The concessions carry different expiration dates. The SES concession, covering Sectors A, B, and C, will expire in 2020. The concessions for the extension of SES (Sector D),

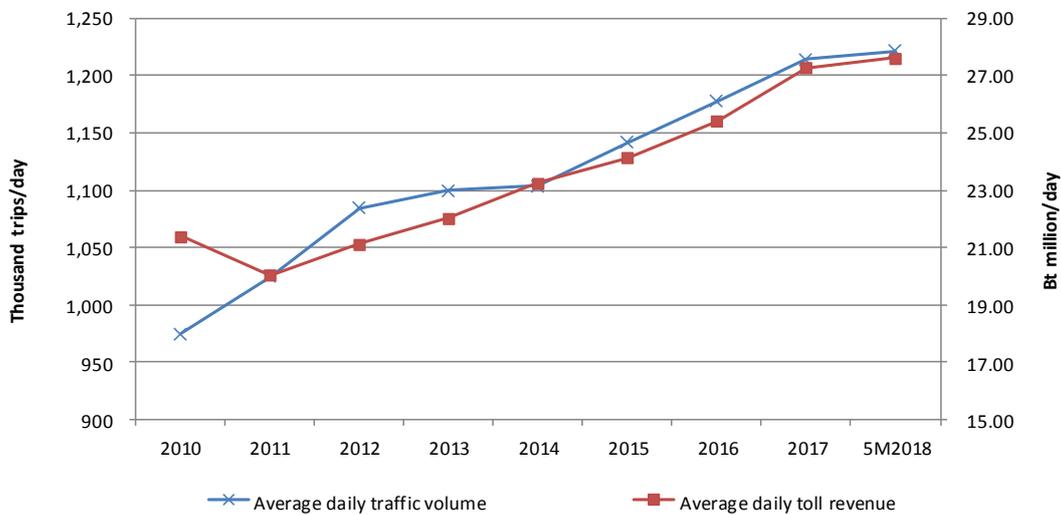
Sector C+, and the SOE will expire in 2027, 2026, and 2042, respectively.

In March 2017, BEM entered into the new MRT Blue Line concession agreement with the MRTA. The new MRT Blue Line concession covers the MRT Chaloem Ratchamongkhon Line (Hua Lamphong Station - Bang Sue Station) which has been operated since 2004 and the MRT Blue Line Extension project (Hua Lamphong Station - Lak Song Station and Bang Sue Station - Tha Phra Station) which is expected to be fully operational in 2020. The new concession will end in 2050. The MRT Blue Line concession is on a Public-Private Partnership (PPP) Net Cost agreement basis which BEM has the rights to collect fare box revenue, undertake commercial development activities, and bear the risk of ridership.

BEM also operates the MRT Chalong Ratchadham Line (Purple Line) under a 30-year concession on a PPP Gross Cost scheme basis. Under this type of basis, the MRTA paid for all the civil works while BEM advanced the investment in the M&E systems and the rolling stock. The MRTA will gradually repay the cost of the M&E equipment to BEM over 10 years after BEM delivers and transfers ownership of the M&E equipment to the MRTA. BEM provides operation and maintenance (O&M) services to the MRTA throughout the concession period which ends in 2043. In return, BEM receives service revenue on a cost-plus basis. BEM does not take risk of the ridership under the Gross Cost scheme basis.

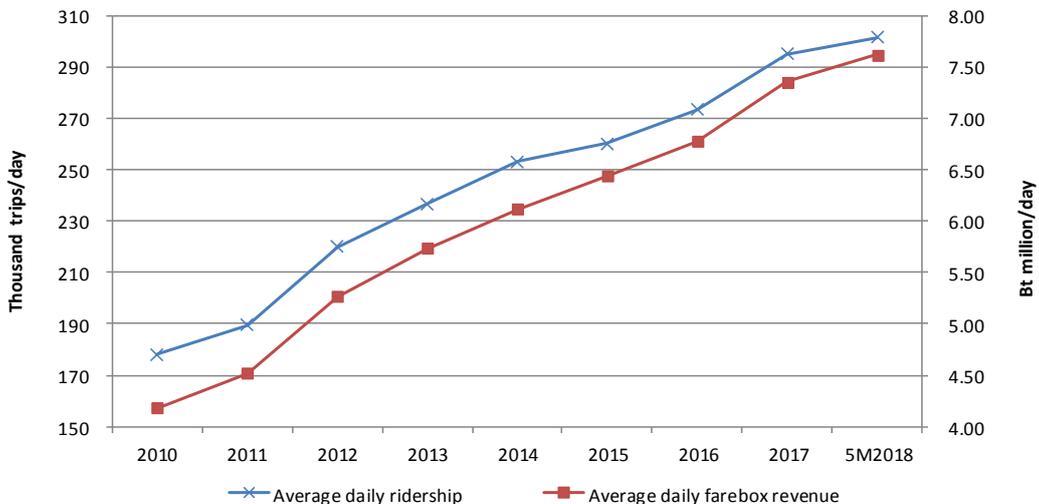
KEY OPERATING PERFORMANCE

Chart 1: Average Daily Traffic Volume and Revenue



Source: BEM

Chart 2: Average Daily Ridership and Farebox Revenue



Source: BEM

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

Unit: Bt million

| | ----- Year Ended 31 December ----- | | | | |
|--|------------------------------------|--------|--------|--------|--------|
| | Jan-Mar 2018 | 2017 | 2016 | 2015 | 2014 |
| Revenue | 3,886 | 15,153 | 13,104 | 11,738 | 11,234 |
| Gross interest expense | 413 | 1,542 | 1,728 | 2,320 | 1,687 |
| Net income from operations | 459 | 2,214 | 1,910 | 719 | 1,899 |
| Funds from operations (FFO) | 1,602 | 6,917 | 5,837 | 4,091 | 6,162 |
| Capital expenditures | 2,662 | 8,191 | 6,741 | 7,354 | 6,311 |
| Total assets | 98,353 | 98,919 | 82,786 | 78,095 | 70,026 |
| Total debts | 50,535 | 51,188 | 51,220 | 45,424 | 40,276 |
| Shareholders' equity including minority interests | 31,950 | 31,179 | 29,783 | 29,130 | 26,209 |
| Operating income before depreciation and amortization as % of sales | 49.17 | 52.64 | 56.73 | 57.60 | 64.23 |
| Pretax return on permanent capital (%) | 5.32 ** | 5.56 | 5.02 | 4.86 | 6.17 |
| Earnings before interest, tax, depreciation, and amortization (EBITDA) interest coverage (times) | 4.91 | 5.49 | 4.56 | 3.14 | 4.67 |
| FFO/total debt (%) | 13.14 ** | 13.51 | 11.40 | 9.01 | 15.30 |
| Total debt/capitalization (%) | 61.27 | 62.15 | 63.23 | 60.93 | 60.58 |

Note: Excluding the MRT Purple Line debt and related interest income and expenses

* Consolidated financial statements

** Annualized from the trailing 12 months

Bangkok Expressway and Metro PLC (BEM)

| | |
|---|--------|
| Company Rating: | A |
| Issue Ratings: | |
| BEM196A: Bt5,000 million senior unsecured debentures due 2019 | A |
| BEM200A: Bt2,500 million senior unsecured debentures due 2020 | A |
| BEM214A: Bt3,000 million senior unsecured debentures due 2021 | A |
| BEM216A: Bt1,615 million senior unsecured debentures due 2021 | A |
| BEM229A: Bt2,000 million senior unsecured debentures due 2022 | A |
| BEM234A: Bt3,500 million senior unsecured debentures due 2023 | A |
| BEM236A: Bt2,000 million senior unsecured debentures due 2023 | A |
| BEM249A: Bt3,000 million senior unsecured debentures due 2024 | A |
| BEM254A: Bt3,500 million senior unsecured debentures due 2025 | A |
| BEM250A: Bt2,500 million senior unsecured debentures due 2025 | A |
| BEM266A: Bt3,335 million senior unsecured debentures due 2026 | A |
| BEM270A: Bt3,000 million senior unsecured debentures due 2027 | A |
| BEM286A: Bt2,750 million senior unsecured debentures due 2028 | A |
| BEM286B: Bt500 million senior unsecured debentures due 2028 | A |
| Rating Outlook: | Stable |

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