MARC RATING METHODOLOGY

TELECOMMUNICATION COMPANIES



OVERVIEW

MARC looks at the following core areas in arriving at any given rating for a telecommunication (telco) company: business risk, financial risk, management, organisational structure & ownership and other qualitative factors.

MARC's rating methodology incorporates the combined inputs of quantitative financial analyses as well as qualitative assessments. Barring the absence of any specific overriding factor, the weightage assigned to qualitative factors and quantitative metrics are equally distributed. The telco is assigned rating scores that reflect the relative risk for its operating environment/industry, business (competitive and operational analysis) as well as its financial performance. The weights assigned to each rating factor would reflect MARC's view as to its relative significance as a credit risk driver.

Apart from financial leverage, diversity, scale and acquisition-driven event risk which have the greatest impact on MARC's ratings for a telco, the current landscape is increasingly driven more by strategic initiatives reflecting increasing competition, and convergence that are blurring the definition of the traditional telco industry.

For an illustration of benchmarks for the assessment of the aforementioned key rating considerations, please refer to MARC's "Non-Financial Corporates" methodology.

Contact:

Hafiza Abdul Rashid Vice President, Ratings hafiza@marc.com.my

+603 2717 2900 www.marc.com.my In addition to the core rating areas outlined above, there may be other considerations which support our rating for specific debt and hybrid instruments, for example a structural subordination element.

For details of MARC's approach to rating subordinated debt or hybrid securities, see the criteria report "Equity Credit and Notching Approach for Corporate Subordinated Debt and Hybrid Securities".

BUSINESS RISK PROFILE

Key areas in MARC's assessment of a telco's business risk profile include: industry structure, competitive position and operating efficiency.

Industry analysis

The industry structure, particularly the number of players in the host country, determines the competitive environment which affects the pricing power of a telco, marketing expenditure to differentiate product offerings and the level and speed of capital expenditure on new technologies. MARC generally breaks down the telco industry into two generic tiers to achieve greater granularity in our assessment of the riskiness of the operating environment. Each tier has distinct implications for ratings strength.

If the telco is operating in several markets, MARC will be assessing the growth and profit potential for the telco in its core markets. Industry growth rates broadly reflect industry maturity, and growth rates at multiples of GDP growth are generally viewed in a more favourable light. Growth rate sustainability is also examined in the context of current penetration rates and product innovation. A high mobile penetration rate, as currently witnessed in Malaysia, usually points to lower future mobile growth.

A telco that operates in several markets which are at varying stages of maturity could, therefore, exhibit higher growth and profitability potential than a telco that is exposed to flat or declining industry growth rates in a single market. Indeed, some telcos have made acquisitions outside of their home market. However, these carry corresponding execution and integration risks, and typically entail higher debt levels. The degree of internationalisation of the rated telco and the characteristics of its core markets are factored in our assessment of industry fundamentals.

The orientation of regulation, to the extent that it aims to prevent telco failures or protect consumers, also possesses considerable rating significance. Regulation shapes the competitive environment and defines opportunities for other service providers. A review of the national telecommunication policy of each country (in which the telco operates) will form part of the rating process.

Common parameters in industry and operating environment:

- Industry structure and its stability: number of players and relative size, barriers to entry and potential for new entrants;
- Regulation (ownership restrictions, rate regulation, number portability and liberalisation) as it defines the entry barriers, the parameters within which the industry operates and influences its profitability;
- Impact of newer technologies, prospects for substitutes;
- Emerging new competition;
- Market growth prospects for specific segments; wireless for land line substitution;
- Distribution capabilities;
- Rate structures/pricing vis-à-vis competitors;
- Character of foreign investment; and
- Strategic alliances and appetite for mergers and acquisition.

MARC regards industry risk in the telecommunication sector as increasing for mobile network operators, many of which are facing meaningful declines in voice, SMS and roaming service revenues with the proliferation of free IP-based voice calls, texts and video messages. Third-party voice over IP(VoIP) apps such as Skype, WhatsApp, WeChat and Viber are empowering users to pursue cheaper communication solutions aided by the ubiquity of Wi-Fi. The increasing commoditisation of voice and data services has contributed to evident declines in average revenue per user (ARPU) in many markets, and less sanguine outlooks for bottom-line margin as well as top-line growth, going forward.

Competitive analysis

The relative positioning of a telco within any given segment and its strength within its markets are considered integral to the sustainability of a telco's operating position and ability to counter competitive pressures and major offensives by other telcos to increase their market share. Market positions are measured by reference to revenue and subscriber share for the respective segment.

Scale is very important given the huge capital expenditure outlay required to establish a robust network as well as typically sizeable marketing costs. Scale and size determine a telco's ability to distribute fixed costs over a given base. Trend analyses and peer group analyses of subscriber penetration levels and churn rates provide meaningful insights into customer satisfaction, competitive risk, growth potential, as well as marketing efficiency and management effectiveness. The expansive networks of incumbent telcos remain significant to their domestic market dominance.

MARC also considers the rated telco's strategic initiatives to enhance its customer value proposition. These include, among others, infrastructure

upgrade in preparation for new service/product offerings and timely launch and execution of new services. MARC tends to view telcos that are delaying expenditure on network infrastructure upgrade in a less positive light given that infrastructure upgrades are considered a defensive necessity. The key subfactors in the analysis of competitive position tend to favour large telcos.

Operational analysis

An operational review provides perspective on how well positioned the telco is to deal with market competition and technological changes. Network quality has a direct bearing on service levels and performance reliability, as well as on efficiency and maintenance costs. New technology has made it more economically viable for less established operators to challenge the incumbent operators within their domestic franchises.

A technologically advanced platform therefore enables incumbent providers to better defend and/or attack encroaching competition and/or pre-existing competition. The increasing trend of competitors gaining access to the networks of incumbents has resulted in pressure on fixed line voice revenues, particularly long-distance voice services. MARC looks at the strategic initiatives or counter measures that the telco has taken to enhance efficiency gains. Cost-cutting and network rationalisation initiatives are commonly observed telco strategies.

The mobile segment, on the other hand, is or will likely experience increasing customer acquisition and retention costs. Growth initiatives which could help arrest margin decline may, however, entail in higher business risk than its incumbent operations. Scale generally affords telcos greater operational cost efficiencies. Subscriber clustering is also an important determination of cost efficiency. The more significant subscriber clustering is, the better the cost recovery. Customer service ranks highly in our assessment of telco credit risk in light of the increasingly competitive and converging operating environment that telcos operate in.

Common parameters examined under operational analysis include:

- Network quality and technology;
- Customer service processes, customer focus and commitment to customer service;
- Cost structure (composition, fixed-cost trends, behaviour of costs under flat revenue scenarios);
- Operating margins vis-à-vis competitors;
- Capital expenditure spending (including strategic investments in emerging technologies);
- Productivity measures vis-à-vis competitors; and
- Execution and integration risks in relation to acquisitions and/or new service offerings.

FINANCIAL RISK PROFILE

MARC's analysis of financial metrics considers both historical and projected financial ratios. Trends over a three to five-year period are analysed and compared to industry medians. The further the telco's financial measures are from its peer group, the more it has to seek to improve operating or financial efficiency or to maintain/improve its competitive advantage. The financial analysis provides insight into the telco's historical operating performance, identifies unusual trends or items, and provides a meaningful context to analyse its projections. Weaker telcos are measured by their financial profile rather than any other single rating factor.

Main indicators for financial risk analysis include:

- Business line segment revenues and pre-tax profitability, correlation between segments;
- Geographic diversity of contribution of revenue and pre-tax profitability;
- Financial policies (leverage, target rate of return, dividends, and share buybacks);
- Free cash flow capability;
- Liquidity; and
- Financial flexibility.

Financial performance trends of telcos are usually examined on a comparative peer group basis. MARC expects operating profit before interest, taxes, depreciation, and amortisation (OPBITDA) margin pressure for mobile operations to become more evident over time as a result of rising customer retention and acquisition costs, slower pace of returns on 4G services and competition from other operators with the unbundling of the incumbent networks.

Fixed-line operations will face similar challenges arising from the migration of voice and data traffic from fixed to wireless networks and alternative technology. OPBITDA margins of incumbent mobile operators in Malaysia remain quite strong despite price pressure and continue to underpin the incumbents' solid financial profile.

MARC observes continuing profitability in the mobile business despite intense competition and declining average revenue per user levels. OPBITDA return on average assets is the key measure of a telco's underlying profitability in relation to its asset base. Solid investment-grade ratings (at least within the AA range) of a telco, generally generate double-digit OPBITDA return on average assets ratios.

An analysis of the strength and predictability or stability of a telco's cash flows is fundamental to MARC's assessment of an issuer's ability to repay debt. The greater the telco's cash flow generation relative to the total amount of debt and other claims, the more able it will be to meet maturing debt obligations in the face of potentially adverse conditions and, therefore, the higher the rating. In many cases, the size of coverage

measures may be less important than its stability or sustainability. When analysing capex, MARC considers the discretionary/non-discretionary nature of planned outlays, as well as variable versus non-variable capex. This aids a better understanding of the free cash flow generating ability of the rated telco.

Given that MARC's rating constitutes an opinion of the issuer's ability to repay debt obligations in a timely manner, and is an assessment of the future, MARC's cash flow analyses consider the likely future cash flows of a telco relative to its future obligations. MARC assesses likely future cash flows in the context of earnings growth potential and capex requirements. Retained Fund from operations (FFO)/gross debt captures the effect of changes in capital policy regarding the use of free cash flow or dividends.

If share repurchases are significant, MARC would also take these into consideration. The FFO interest coverage measures of the domestic telco incumbents position them favourably vis-à-vis highly rated telcos in developed markets. Lastly, the telco's ability to meet both operating needs and debt obligations is analysed under reasonable stress scenarios.

MARC's analysis of leverage and balance sheet strength incorporates an assessment of management's tolerance for debt leverage, pressures to optimise shareholders' returns as well as management's propensity for acquisitions and the manner in which they are financed. MARC also considers debt maturities, paying more attention to short-term debt and refinancing/repayment arrangements.

In general, telcos are better able to support higher financial leverage levels than most companies in other industries because of their ability to generate strong and relatively stable cash flows. Cash-generating capacity during a fiscal year tends to exceed capex and dividend needs. Notwithstanding, these same observed cash flow characteristics usually enable telco incumbents to maintain modest debt levels.

MANAGEMENT, ORGANISATIONAL STRUCTURE AND OWNERSHIP

Management is assessed for its role in developing and implementing long-term strategies that provide the foundation for sustainable long-term competitive advantage. MARC is of the view that the strength of the management team will determine a telco's medium to longer term competitiveness.

The better conceived a company's strategy is, the better the company is able to adjust to changing conditions and emerging market opportunities, and compete successfully. Of particular interest to MARC are: the telco's positioning on technology, strategy to counter market share erosion, plans to build higher margin services and new revenue sources.

Common parameters when assessing a telco's management include:

- Complexity of the corporate structure;
- Organisational structure, management breadth and experience;
- Management flexibility in responding to competition, track record of management;
- Management continuity;
- Strategy and execution to address threats from alternate technology and new operators;
- Financial risk tolerance/policies;
- Corporate governance; and
- Ownership (degree of support to be expected and resources available to provide such support).

OTHER CONSIDERATIONS

Parent-subsidiary and Group Linkages

Where the rated obligation is structured with substantial recourse to parent company, MARC will assess the significance of the operational and financial linkages to determine the degree of parent-subsidiary relationships and implicit intra-group support before arriving at the issue rating.

The greater the degree of integration of a group member into the overall group and the quality and size of its related party transactions, the more the creditworthiness of that entity will be interlinked with the creditworthiness of other group companies.

In addition to the usual operational and strategic ties that link the credit profiles of group members, MARC also considers the rating interdependencies between the group members that are created as a result of intercompany loans, financial guarantees, as well as cross-default and cross-acceleration provisions under financing documents.

MARC assesses the extent of any rating uplift or drag respectively arising from the issuer's exposure to stronger or weaker group members, whichever applicable, in order to determine its adjusted rating consistent with its methodology "Group Rating Methodology".

DECEMBER 2019

MARC has refined its methodology for rating Telecommunication Companies and it should be read in relation to its "Non-Financial Corporates" methodology which is available on the website at www.marc.com.my. This methodology partly amends and supersedes MARC's "Telecommunication Companies" methodology published in 2015.

DECEMBER 2019

THIS PAGE IS INTENTIONALLY LEFT BLANK

| Disclaimer | |
|----------------|--|

Copyright © 2019 Malaysian Rating Corporation Berhad and any of its subsidiaries or affiliates ("MARC") have exclusive proprietary rights in the data or information provided herein. This document is the property of MARC and is protected by Malaysian and international copyright laws and conventions. The data and information shall only be used for intended purposes and not for any improper or unauthorised purpose. All information contained herein shall not be copied or otherwise reproduced, repackaged, transmitted, transferred, disseminated, redistributed or resold for any purpose, in whole or in part, in any form or manner, or by any means or person without MARC's prior written consent.

Ratings are solely statements of opinion based on information gathered and available in public and information obtained from ratees and other sources which MARC believes to be reliable and therefore, shall not be taken as a statement of fact under any circumstance. MARC does not and is in no position to independently audit or verify the truth and accuracy of the information contained in the report and shall not be responsible for any error or omission or for the loss or damage caused by, resulting from or relating to the use of such information. NEITHER MARC NOR ITS AFFILIATES, SUBSIDIARIES AND EMPLOYEES, GIVE ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY AS TO THE ACCURACY, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR USE OF ANY SUCH INFORMATION.

A rating is not a recommendation to buy, sell or hold any security and/or investment. Any user of this report should not rely solely on the rating and analysis contained in this report to make an investment decision in as much as it does not address non-credit risks, the adequacy of market price, suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security concerned.

Ratings may be changed or withdrawn at any time for any reason at the sole discretion of MARC. MARC may make modifications to and/or amendments in this document including information contained therein at any time after publication as it deems appropriate.

MARC receives fees from its ratees and has structured reporting lines and compensation arrangements for its analytical members in a manner designed to promote the integrity of its rating process, and to eliminate and/or manage actual and/or potential conflicts of interest

MARC and its affiliates, subsidiaries and employees shall not be liable for any damage or loss resulting from the use of and/or reliance on this document produced by MARC or any information contained therein. Any person making use of and/or relying on any document produced by MARC and information contained therein solely assumes the risk in making use of and/or relying on such reports and all information contained therein and acknowledges that this disclaimer has been read and understood and agrees to be bound by it.

© 2019 Malaysian Rating Corporation Berhad

Published and Printed by:

MALAYSIAN RATING CORPORATION BERHAD 199503035601 (364803-V)

19-07, Level 19, Q Sentral, 2A Jalan Stesen Sentral 2, Kuala Lumpur Sentral, 50470 KUALA LUMPUR

Tel: [603] 2717 2900 Fax: [603] 2717 2910

Email: marc@marc.com.my Website: www.marc.com.my