



TELECOMMUNICATION INDUSTRY

OVERVIEW

ECRL looks at the following core areas in arriving at any given rating for a telco company: industry/operating environment, the telco's competitive position, its operational efficiency and effectiveness, its financial strength and financial performance. ECRL's rating methodology incorporates the combined inputs of quantitative financial analyses as well as qualitative assessments. Qualitative factors generally weigh in at least as heavily as quantitative metrics. The telco is assigned rating scores for its operating environment/industry, and business (competitive and operational analysis) that reflect relative risk. These scores would fall into one of five risk classifications (from well below average risk to well above average risk), and can be equated to specific letter rating categories (AAA through C). The weights assigned to each core rating area would reflect ECRL's view as to its relative significance as a credit risk driver. Apart from financial leverage, diversity and scale, acquisition driven event risk which have had the greatest impact on

ECRL's ratings for telco, strategic initiatives have assumed increasing importance in the present day landscape which is characterized by increasing competition, and convergence that is blurring traditional industry lines. In addition to the core rating areas outlined above, there may be other considerations which support our rating for specific debt and hybrid instruments such as structural subordination.

1. Industry/Operating Environment

Key sub-factors

- 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 liberalization) to the extent it is supportive of return on investment
- Impact of newer technologies; prospects for substitutes
- Emerging new competition
- Market growth prospects for specific segments; wireless for wireline substitution
- The industry structure, in particular the number of players, affects the pricing power of a telco, marketing expenditure spent to differentiate product offerings and the level and speed of capital expenditure on new technologies. ECRL 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, ECRL 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 favorable light.

Sustainability of growth rates is also examined in the context of current penetration rates and product innovation. High cellular penetration rates, as is currently witnessed in Malaysia, usually points to lower future cellular growth. A telco that is operating in a number of 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 which carry corresponding execution and integration risks, and typically entail in higher debt

levels. The degree of internationalization of the rated telco and the characteristics of its core markets will be factored in our assessment of industry fundamentals. The orientation of regulation, to the extent it aims to avoid telco failures or protecting 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. A major challenge for integrated (with both fixed-line and cellular business) telcos and cellular operators is the increasing competitive intensity for mobile telephony services. This has resulted in operators launching new services to protect their franchises as well as customer base, and seeking growth beyond their domestic franchises. ECRL believes that the incumbent telecommunication service providers will be successful in their efforts to remain the leaders domestically, in their respective market segments. At present, the loss of market share for incumbents is still offset by extra traffic volumes from lower prices and subscriber growth, and by increased revenue through new service and product offerings. ECRL therefore views the telecommunication sector as possessing average industry risk with the stable and growing demand for telecoms services providing an important offset to challenges of market share erosion. At the same time we anticipate a growing credit differentiation between telcos, particularly the primary and secondary competitors. Outside of the telephony space, ECRL sees internet usage as a potentially important driver of telecommunications revenue. A high-capacity broadband infrastructure presents a window of opportunity to promote cross-market other product offerings and services that may positively impact subscriber economics and customer retention.

2. Competitive Position

Key sub-factors

- Market share of telco/relative positioning within any given segment
- Revenue composition and dispersion
- Fixed line services (revenue trends, capex)
- Subscriber service penetration (basic and premium)
- Market share (size of customer base within any given segment), diversification between customer sets and growth trends for each
- Subscriber churn
- Any available measures of depth of a customer relationship (for e.g., number of different services used by a customer)
- Character of customer bases and target customers
- New product offerings (including ability to bundle multiple services)
- Brand equity (quality of service and network coverage) in relation to market position
- Distribution capabilities
- Rate structures/pricing vis-à-vis competitors
- Character of foreign investment
- Strategic alliances and appetite for mergers and acquisitions

The relative positioning of a telco within any given segment and its strength within its markets is 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 position is 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 and typically sizeable marketing costs. Scale and size determines a telco's ability to distribute fixed costs over a given base. Trend analyses and peer group analyses of subscriber penetration levels and churn 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. ECRL considers strategic initiatives of the rated telco to enhance its customer value proposition. These include, amongst others, infrastructure upgrade in preparation for new service/product offerings and the timely launch and execution of new services. ECRL would tend to view telcos that are not spending or delaying expenditures on infrastructures upgrades in a less positive light given that infrastructure upgrades are now a defensive necessity. The key sub-factors in the analysis of competitive position tend to favour large telcos.

3. Operations Analysis

Key sub-factors

- Network quality and technology
- Customer service processes, customer focus and commitment to customer service
- Cost structure (composition, fixed cost trends, behavior 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
- Execution and integration risks in relation to acquisitions and/or new service offerings

An operational review provides a perspective view of how well positioned the telco is to deal with market competition and technological change to the extent a number of the key-sub factors outlined above represent building blocks for future cash flows. 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. ECRL looks at the strategic initiatives or counter measures that the telco has taken to enhance efficiency gains. Cost-cutting and network rationalization initiatives are commonly observed strategies of telcos. The cellular segment, on the other hand, is or will likely experience increasing customer acquisition and retention cost. Growth initiatives which could help to 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 cost recovery is. Customer service ranks highly in our assessment of telco credit risk in the light of the increasingly competitive and converging operating environment that telcos operate in.

Management and Other Qualitative Factors

Key sub-factors

- Complexity of the corporate structure
- Organization structure, management breadth and experience
- Management flexibility in responding to competition, track record of management
- Management continuity
- Strategy and execution (including success in growing business beyond traditional voice services and plans to address threats from alternate technology and new operators)
- Financial risk tolerance/policies
- Corporate governance
- Ownership (degree of support to be expected and resources available to provide such support)

From a rating perspective, good strategy and good strategy execution are the most reliable signs of good management. 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. Management is assessed for its role in developing and implementing long-term strategies that provide the foundation for a sustainable long-term competitive advantage. ECRL is of the view that the strength of the management team will determine a telco's medium term to longer term competitiveness. Of particular interest to ECRL are: the telco's positioning on technology, strategy to counter market share erosion, plans to build higher margin services and new revenue sources.

Financial Risk Analysis

Key sub-factors

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

ECRL's analysis of financial metrics considers both historical and projected financial ratios. Trends over a 3 to 5-year period are analyzed and compared to the 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 its financial profile than any other single rating factor.

I. Profitability and Earnings Measures/Ratios

- EBITDA



- EBITDA margin (EBITDA/Net Sales or EBITDA/Revenue) (%)
- EBIT/Net Sales (also known as Operating Margin) (%)
- EBITA/Average Assets
- Return on Capital (%)
- Capex/Depreciation (x)

1) Earnings before interest, taxes, depreciation, and amortization (EBITDA) excludes items of a non recurring nature such as gains on asset sales, unusual losses, losses on asset sales, and charges due to asset write-downs, and restructuring (arising from M&A and divestitures) but includes interest income and equity earnings. EBITDA is also referred to as earnings from continuing operations before interest, taxes, depreciation and amortization.

2) EBIT equals EBITDA minus depreciation and amortization.

3) EBITA is EBITDA less depreciation.

4) Return on capital is EBIT/Average of beginning of year and end of year capital, including short-term debt, current maturities, long-term debt, and equity.

Financial performance trends of telcos are usually examined on a comparative peer group basis. ECRL expects EBITDA margin pressure for cellular operations to become more evident over time as a result of rising customer retention and acquisition costs, slower pace of returns on 3G services, competition from other operators with the unbundling of the incumbents networks. Fixed line operations will face similar challenges arising from the migration of voice and data traffic from fixed to wireless networks and alternate technology. EBITDA margins of incumbent cellular operators remain quite strong, mostly above 40%, and continue to underpin the incumbents' solid financial profile. ECRL observes continuing profitability in the cellular business despite intense competition and declining average revenue per user levels. EBITA/Average Assets is the key measure of a telco's underlying profitability in relation to its asset base. The incumbent mobile operators, all of which possess solid investment-grade ratings (at least within AA range), are currently generating EBITA/Average Assets ratios of above 16%.

II Cash Flow and Coverage Ratios

- EBITDA/gross interest coverage (x) – measures an issuer's ability to meet its cash interest payments from core business operating cash flows.
- EBIT /gross interest coverage (x)
- Funds from operations (FFO) + Interest
- Expense/gross interest (x)
- FFO/total debt (%)
- Free cash flow/gross debt (%) – indicates ability to repay debt after all non-discretionary commitments, including capital expenditure
- Retained FFO/gross debt (%)

1. Gross interest is defined as interest charged to the profit and loss account plus capitalized interest.

2. FFO is defined as cash flow from operations before working capital changes. Total debt equals long-term borrowed funds plus current maturities, commercial paper, and other short-term borrowings.

3. Free cashflows from operations – capex – dividends (preferred + ordinary)

4. Gross debt is interest bearing debt whereas net debt is after gross debt minus cash and bank balances including fixed deposits held with financial institutions. 5) Retained funds from operations equal FFO minus dividends (preferred + ordinary). Analysis of the strength and predictability or stability of a telco's cash flows is fundamental to ECRL'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 analyzing capex, ECRL 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.

Retained 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, ECRL would also take these into consideration. The FFO interest coverage measures of the domestic telco incumbent's position them favorably vis-à-vis highly rated telcos in developed markets. Given that ECRL'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, ECRL cash flow analyses consider the likely future cash flows of a telco relative to its future obligations. ECRL assesses likely future cash flows in the context of earnings growth potential and capex requirements. Lastly, the telco's ability to meet both operating needs and debt obligations is analyzed under reasonable stress scenarios.

III Leverage Measures

- Total debt/equity (x)
- Net debt/equity (x)
- Total debt/EBITDA (x)
- Net debt/EBITDA (x)
- Total debt/total capital (%)
- Short term debt/total capital (%)
- Long term debt/total capital (%)

1. Equity refers to shareholders' equity (including referred stock) plus minority interest. 2. Total capital equals long-term debt plus current maturities, commercial paper, and other short term borrowings + shareholders' equity (including preferred stock) plus minority interest. 3. Short term debt refers to borrowed funds with remaining term to maturity of ≤ 1 year and includes borrowed funds with no fixed term of maturity classified as 'current liabilities' 4. Long term debt refers to borrowed funds (interest bearing or not) hat have a remaining term to maturity of > 1 year In addition to cash flow leverage measures, ECRL also looks at more traditional measures of leverage such as total debt to equity and total debt to total capital.

ECRL's analysis of leverage and balance sheet strength incorporates an assessment of management's tolerance for debt leverage, pressures to optimize shareholders' returns as well as management's propensity for acquisitions and the manner in which they are

financed. ECRL 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. Consequently, the observed gross debt to equity of incumbents was mostly below 0.5 times whilst negative was largely negative (indicating cash balances that are larger than debt).

IV Short Term Debt Servicing Ability/Liquidity

- Cash flow from operations (CFO) to short term debt (x)
- CFO to current liabilities (x)
- Short term debt to total debt (%)
- Cash and marketable securities to current liabilities (%)

Note: CFO is funds from operations after incorporating the effects of working capital changes.

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