CORPORATE DEBT RATING

INTRODUCTION

For ratings of corporate debt, the analytical framework consists of the following core areas:

- Business Risk Analysis
- Financial Risk Analysis
- Management and Other Qualitative Factors
- Issue Structure and Terms

Business Risk Analysis addresses industry characteristics, competitive position and operations analysis and Financial Risk Analysis is segmented into three sub-sectors – profitability, cash flow/debt service capacity, capitalization/financial policies and financial flexibility. In most 'non-structured transactions', the weights assigned to Business Risk and Financial Risk Analysis is around 50% and 40% respectively, while Management and Other Qualitative Factors normally carry a weight of 10%. Inevitably there are cases where specific factors could exert a greater influence on the rating outcome and justify a change in then usual weightings. Where the approach is modified, ECRL will outline the differences and reasons in its rating opinion.

BUSINESS RISK ANALYSIS

The industry assessment aspect of ECRL's business risk analysis considers the operating environment of the ratee, its industry structure, the relative market share of industry participants and trends in those shares, industry growth rates, the competitive environment as well as the regulatory environment. ECRL believes that the above factors will determine the ratee's ability to grow, operate profitably and to generate cashflow to service its debt. Assessment of the current and long-term industry fundamentals of the industry or key industry sectors in which the ratee operates include consideration of pricing power, product or service substitution in addition to barriers to entry and exit. Some industries exhibit a high degree to sensitivity to economic cycles while others are relatively immune to economic cycles. Industries also exhibit distinct attributes over their lifecycle which have important implications for returns and sustainability of financial performance. ECRL also considers the predictability of the regulatory environment and the extent to which regulation influences the competitive environment of the ratee and provides support for return on investments for existing players and new entrants.

A ratee which belongs to an industry or industries with less favorable industry characteristics will require more conservative financial profiles/policies to achieve the same rating level as firms operating in industries with more favorable industry characteristics. Relatively favorable industry characteristics should support comfortable earnings and cashflow generation even during the low points of the economic cycle. An industry with declining growth rates creates uncertainty about the reliability of earnings and cashflow.

The competitive position aspect of ECRL's analysis covers the ratee's business model, its looks at an organization's strengths and weaknesses relative to its peers. In particular, the question analysts must answer is whether the firm's market positions and associated business strategies allow it to favorably differentiate itself from its competitors or, alternatively, limit it to mediocre performances at best. Size can be an advantage if it translates into economies of scale, purchasing power, or pricing advantages. Geographic diversity is usually viewed positively in that it may promote a balance between slower and higher growth markets and lessen the impact of downturns in a certain market. Similarly, a ratee with diversified operations, by virtue of its breadth and scope of operations, would be less impacted by weaker results from any single segment of its business mix.

Net operating margin is the universal measure of performance on which firms in the same industry can be compared. It relates profits before interest expense and taxes to sales revenue. Some caution needs to be exercised in utilizing this measure to compare firms in different industries, segment information should be obtained to enable net operating margins to be calculated for each part of the business, thus enabling more meaningful peer comparisons to be made.

OPERATIONS ANALYSIS

This aspect of ECRL's analysis looks at the company's operational efficiency. The rating factors that are covered here will differ according to the industry, but the objective of the analysis is to assess the ratee's operational efficiency and effectiveness, and corresponding implications for cost efficiency, profitability and relative competitive position. A manufacturer could have a more favorable cost structure compared to its peers on the basis of manufacturing efficiency, which may or may not have anything to do with size. The age of plant and equipment in use, together with the quality of systems and processes, will often be the more telling explanation for differences in performance. Similarly, for companies operating in service industries, performance differentials are typically associated with the quality and execution of business strategies. Size is a less important consideration. Ongoing cost improvements are often critical to sustaining and maintaining margins in competitive environments in which real price increases are difficult to achieve. The ability of the ratee to roll out a competitive offering in a timely and efficient manner, ahead of its rivals, has an important bearing on the strength of its business position and its growth potential. ECRL also considers operational initiatives that are currently employed by the rate to improve productivity, cost structure competitiveness, quality, order fulfillment and service standards.

FINANCIAL RISK ANALYSIS

ECRL considers the ratee's operational profitability, typically over a five-year period to assess the volatility of operating margins and its record of earnings generation. This allows us to incorporate the impact of cyclical demand on earnings and to be able to rate through the cycle as far as possible. Isolated from other credit considerations, ratees that are able to demonstrate consistent earnings generation are likely to warrant higher ratings. These ratees also tend to have better access to capital, more financial flexibility and resources to make capital investments. High revenue volatility through cycles and narrow profit margins will result in periods of low returns on assets. Because our ratings are forward looking, determination of the main drivers underpinning revenue and operating margin trends are fundamental to our assessment of the sustainability of the ratee's earnings generation and its ability to withstand downturns in its business environment. Return measures which relate profits to assets, permanent capital or equity provide an indication of a ratee's ability to generate sufficient return to enable continuous access to equity and debt funding. Return on assets is computed both before and after taxes and measures the productivity of all assets. Return on permanent capital is a slightly narrower measure which relates profits to the "permanent" funding providing by debt and equity capital, principally excluding trade financing and other current liabilities. Return on equity is the narrowest of the return computations and the outcome of the calculation is influenced by the capital structure of the ratee.

ECRL believes that shareholder friendly financial policies often act as a constraint on improvements in credit measures and balance sheet strength over time. To assess the ratee's retention of earnings and internal capital formation, ECRL looks at its dividend payout ratio and the retained earnings ratio. The dividend payout ratio considers the portion of earnings paid out as dividends on common stock. A high dividend payout ratio usually translates into reduced ability to internally fund its working capital and capital investment requirements. The retained earnings ratio indicates the extent to which profits reinvested in the business (i.e. retained earnings) have contributed to the funding of the company's assets since inception.

The trend of the ratio is analysed. A rising ratio usually indicates increasing reliance on internally generated funds to fund asset growth. Rapid asset growth through acquisitions and/or organic growth could pressure the ratee's credit quality, as will active share repurchase programs. ECRL will also consider the related issue of the ratee's willingness to issue equity to improve its capital structure where the issue of ability does not arise.

The interest coverage ratio measures the number of times operating profit before interest and taxes covers gross interest expense. By gross interest expense we are referring to interest before subtracting interest income and capitalized interest. Variations in results among companies in the same industry can be attributable either to differences in profitability or to levels of interest expense. Interest coverage is a useful measure for drawing credit quality distinctions among companies in all different industries.

Cash Flow Generating Ability/Debt Servicing Capacity

These are closely related, as cash flow is the principal source of repayment for debt obligations issued by corporations. Cash flow can either be from operating or from non-operating sources. Cash flow from operations (CFO) is typically defined as pretax profit adjusted for items not involving movement of funds, principally depreciation, amortization and other non-cash items, excluding interest and after movements in working capital. Non-operating cash flows are normally derived from sales of long term assets, which may include property or equipment, parts of or entire business units, or investments in affiliates. Normally these are not considered as recurring sources of funds, but it should be recognized that many long-established firms have numerous non-core assets which could be sold to raise cash.

Annual cash inflows (sources) from operating and non-operating activities are compared with annual cash outflows (uses), both on historic and projected bases. This is called the Cash Flow Match, and indicates the extent to which the organization has been reliant on external funds in the past and is likely to be so in the future.
Cash outflows considered include capital expenditures, long-term investments, dividends on common and preferred stocks, interest expense, and working capital changes. This last item may actually be either a use of cash or a source of cash and is defined as the year to year change in current assets minus current liabilities, excluding changes in cash and equivalents and short term debt. The reason these two items are excluded from consideration in this calculation is that they are products, rather than causes, of operating and non-operating transactions. A company's historical record of cash flow surpluses or deficits must be judged

in terms of the reasons for the performance. Cash surpluses are of little comfort if they result from the company spending inadequate amounts on maintaining the competitiveness of its plant and equipment.
Cash deficits are of much greater concern if they stem from high dividend pay outs or working capital changes unrelated to the development of the business than from capital investments in a new or expanded production facility. Ideally, a firm will borrow to finance an expansion or an acquisition, and then will almost immediately be in a position to begin paying off the debt out of cash flow. This does happen, but rarely.

Often, firms' cash flow surpluses or deficits are heavily influenced by business cycles, unplanned working capital changes, and opportunistic transactions. Thus, in gauging the reasonableness of a company's cash flow forecasts we need to understand the underlying assumptions, how these relate to what the company has previously accomplished as well as to the outlook for the industry and the overall economy and then gauge their reasonableness. We may then decide to stress certain aspects of the cash flows to test the effects of the changed assumptions on the overall surplus or deficit. For example, a 6-12 month delay in completion of a major new production facility will negatively affect projected operation margins, since presumably the new facility will be more efficient than existing production units and interest expense and borrowing levels will be higher as well. Analysts should remember that when revenues are stressed, variable costs should usually be reduced as well. In scoring Cash Flow Generating Ability/Debt Servicing Capacity, analysts should remember that good scores shouldn't automatically be given to those firms whose forecasts, even when stressed, indicate a future cash flow surplus. The cash flow surplus needs to be considered in terms of the debt interest and principal it needs to service and to the competitive health of the business if the surplus is, in fact, used to reduce debt rather than reinvested. Besides the Cash Flow Match, we use for other ratios to support our opinion; these include CFO Interest Coverage, CFO Debt Coverage, CFO Capital Expenditure (Capex), and Capex/Depreciation. ECRL believes that the use of CFO and related CFO ratios to assess the cash flow generating ability and debt servicing capacity of a ratee is generally more meaningful than earnings before interest, tax, depreciation and amortisation, (EBITDA) as the latter is not sensitive to working capital deterioration. ECRL considers CFO interest coverage as well as CFO debt coverage and free cash flow. The CFO Interest Coverage ratio is a variation on the Operating Profit Interest Coverage ratio considered under Profitability. For CFO coverage, we are essentially assuming that amounts attributable to depreciation and amortization are available to service interest payments. In principal, it is typically available for this purpose, but at least with respect to depreciation we normally assume that amounts at least equal to depreciation will have to be reinvested in property, plant, and equipment to enable the firm to remain competitive. The CFO Debt Coverage ratio compares funds from operation to the overall level of debt outstanding. In theory, the ratio indicates how long it would take for one year's CFO (either that of the past year, the most recent 12 months, or projected years) to repay all short and long term debts. As with CFO, the debt level chosen for use can be either the most recent balance sheet date, pro forma for a new issue, or projected.

Capex/Depreciation is a way to quickly judge whether a firm is replacing its aging property, plant and equipment, with new facilities. A ratio of less than 100% would certainly be a red flag, but it is best to compare this ratio against an industry peer group to develop a proper idea about required spending levels.

Ratios well in excess of a peer group also need to be investigated, as one explanation could be that the firm is using longer depreciation lives than its peers. Such a practice would produce artificially inflated profits and might necessitate an asset write down at some point.

Capital Structure/Financial Flexibility

A firm's Capitalization and Financial Policies are often indicative of its risk orientation. The extent to which a firm decides to finance its operations with debt rather than equity will influence the analyst's rating recommendation. Analysts should recognize, however, that very low financial leverage isn't necessarily the most appropriate strategy. After all, equity financing is usually more expensive than debt financing, and so a balance between the two forms of financing is reasonable.

Thus, analysts should seek to understand the basis of a firm's financial policies and its capital structure before drawing conclusions in this section of the credit analysis. It should be noted that it is not unusual to find company management that have not thought through their financial policies very thoroughly. Rather, they rely on "rules of thumb", what bankers tell them is appropriate, or what they think rating agencies or lenders expect of them. Several ratios are normally computed to enable the analyst to measure debt leverage. The universal standard leverage measure is Total
Debt/Equity, which considers all on balance sheet debt obligations, including such short-term liabilities as bank overdrafts, relative to equity. Equity comprises shareholders' funds and minority interest. Looking at leverage on a prospective basis, warrant conversions cannot be assumed, considering the inherent volatility of stock markets which may prevent the warrants from ever getting into the money. If a major shareholder provides an irrevocable commitment to exercise its portion of the warrants, the ability of the shareholder to fulfill the promise must be considered.

The Total Debt/Equity calculation can be segmented into Long-Term Debt/Equity and Short-Term Debt/Equity components. While short term debt does expose a company to refinancing risk, its use within reasonable limits is justified by cost and asset-matching considerations. The equity used in the above-mentioned ratios is book equity (i.e. the equity values reported on the balance sheet). A useful variation is to consider the market value of equity and to compute the Total Debt/Equity ratio using Market Values. To the extent that the market value is well above book value, then there is a higher probability that the company will be able and willing to sell additional equity if needed. Of course, the further in the future the firm projects an equity sale, the less reliable can the plan be considered due to the inherent volatility of the stock market. A final leverage ratio computed is Total Liabilities/Total Capital, which is wider than Total Debt/Equity in that it considers trade credit and other liabilities, in addition to debt, as funding sources. Equity values reported on corporate balance sheet are not always comparable. Asset revaluations relating to acquisitions or other transactions can increase a firm's capital to nearly true market values, while another firm's reported capital can reflect much lower asset valuations. Also, goodwill can sometimes represent a sizable portion of equity. While it is worthwhile making such an observation, the acid test of whether goodwill has value is the firm's ability to earn a return on that investment. We thus have to take another look at our Return calculations (discussed under Profitability) to gauge whether reasonable returns can be earned. If they cannot, then asset write downs (which probably will include goodwill), will likely occur at some point in the future.

In addition to the ratios discussed, ECRL considers a firm's debt maturity profiles in its analysis of the ratee's liquidity position. Bullet maturities indicate that the debt may have to be refinanced at maturity, with new debt or other forms of external capital. Lack of progress in securing financing for significant upcoming debt maturities would be a concern, Ratees that are demonstrating weak operating trends are particularly vulnerable to high refinancing risk during periods of tight market liquidity and adverse investor sentiment. Financial Flexibility principally incorporates the available liquidity in the form of unrestricted cash reserves and liquid investments as well as access to alternate financial sources. Potential constraints on financial flexibility, such as legal claims or potential environmental liabilities, would also be considered in this section. A number of ratios are used to evaluate a firm's liquidity.

Traditional favorites include the Cash Ratio (cash and equivalents/current liabilities), the Quick Assets Ratio (cash and equivalents plus trade receivables/current liabilities), and the Current Ratio (current assets/current liabilities). On the other hand, large amounts of cash and other liquid securities do not usually make economic sense for a firm to permanently carry, since returns on them are low. Seasonal flows may temporarily boost cash balances, but analysts should not be misled and assume that they are a permanent fixture. Similarly, large cash balances can also result from asset sales or financing activities where proceeds have not yet been disbursed. Working Capital/Total Assets is a potentially useful indicator if comparisons can be drawn against a sufficient number of peer companies. Also, if the company being rated has shown a declining trend over a period of time, then a red flag should be raised. Finally, it can be instructive to compile "turnover" ratios for the asset categories of receivables and inventory, to gauge the level of funds tied up in these activities, and for the liability category of trade payables, to see whether the firm is stretching out or speeding up payments to its suppliers. Important information can be learned by tracking turnover rates over time and relative to key competitors. Also, in assessing the reasonableness of a firm's projected Cash Flow Match, analysts should pay attention to whether management has appropriately recognized growth in required working capital along with growth in revenues. Computation of the turnover ratios can help make this assessment. The availability for potential sale of discrete assets whose marketability and value can be reasonably established may be considered as additional liquidity support.

Some positive consideration may also be given to unencumbered assets available for pledge to secure further funding.

In addition to internally generated liquidity, most companies arrange alternative financing to protect against contingencies and to take advantage of opportunities. These usually take the form of bank facilities of various types. To the extent the firm pays commitment fees or other forms of compensation to the bank for these facilities, they may be considered favorably. However, it should be recognized that most bank facilities contain "material adverse change" language which releases the bank from any obligation to lend if the company experiences a significant business reversal. Trade financing lines do not really provide liquidity against contingencies because their use requires presentation of documents related to a specific transaction.

They cannot just be used for general corporate purposes. Potential legal liabilities or environmental claims can cause a cloud of uncertainty to form over a company, raising its cost of capital or even precluding its ability to raise capital at economic rates. Analysts should, therefore, be aware of potential legal and other issues by reading relevant financial statement footnotes closely and by monitoring developments during the rating review process. On legal matters of potential significance, it is appropriate to have ECRL's external legal counsel provide their views on likely outcomes of litigation.

MANAGEMENT AND OTHER QUALITATIVE FACTORS

ECRL's assessment of management quality encompasses the track record of management, in particular its performance through different phases of the economic cycle and relative to industry peers as well as execution of its long-term and short-term strategic plans. Additional evidence of management quality is provided by the ratee's past performance. .Also considered are management's growth ambitions, its appetite for risk, and its ability to assimilate acquisitions successfully where the ratee has a history of M&A transactions. The ratee's financial strategy and policies as they provide a guide as its prospective financial risk profile. Key issues addressed are leverage, management's willingness to support the company's share price through share repurchases and its commitment to maintaining a sound credit profile. Well-run institutions are generally characterized by a deep and stable management structure.

Corporate governance represents an important analytic element of management quality. A 'stakeholder' model of corporate governance which promotes the alignment of interests of management, shareholders and other stakeholders (bondholders included) is viewed positively by ECRL. We believe that good corporate governance has positive implications for a ratee's franchise value and lessens the risk of adverse regulatory intervention.

The management evaluation also needs to be conducted with due consideration given to the actual and potential influence of significant shareholders. Ownership concentration increases the likelihood that shareholders' interests may be pursued at the expense of bondholders, other capital providers, employees and creditors. The ratee's owners may foreseeably have a positive, neutral or negative impact on the rating outcome in instances where a controlling shareholder seeks to access the financial strength of the ratee to support its own credit profile. It is important to establish that there is a congruence of goals of such shareholders with those espoused by management to the rating agency.

ISSUE STRUCTURE AND TERMS

Where an issue-specific rating is undertaken, ECRL undertakes an evaluation of issue's principal terms and conditions. Analysis in this area will largely focus on the proposed utilization of the proceeds from debt to be issued and implications of the proposed issue on the ratee's debt maturity profile, debt servicing burden and covenant headroom. Short-term liquidity and rollover risk are important considerations for commercial paper ratings, particularly if there is heavy reliance on short-term debt to fund longer term assets. The structure of the issue and the affirmative and negative covenants of the indenture under which the rated instrument is issued may influence the ratee's probability of default, and post-default recovery. Structure includes such characteristics as priority for repayment in a liquidation, security, sinking funds, call features, refunding provisions, reserve funds, payment terms and maturity. Security can be in the form of specific collateral or a lien on all assets. To determine whether the senior secured debt rating should be higher than that of the ratee's unsecured debt rating, ECRL examines the adequacy of the collateral securing the debt, liquidity of the collateral and the likely time frame for the disposal of the collateral and debt recovery. For instance, a credit facility that benefits from a first priority lien on substantially all the assets of the ratee could be rated higher than second priority senior secured notes and the second priority senior secured notes of the same ratee could be rated above its senior unsecured notes. Where creditworthiness is high, the need to distinguish the rating on senior secured rating from that on senior unsecured debt is low. When rating hybrid securities which possess both characteristic of equity and debt, ECRL will typically notch down from the ratee's issuer rating with regard to the priority of hybrid security holders' claims relative to senior obligations, the likelihood of deferral of interest or dividend payments and the extent to which the issuer possesses discretion to suspend dividend or interest payments.

ECRL is also sensitive to the structural subordination of parent company debt to debt at its operating companies and the presence of mitigating features intended to limit the impact of structural subordination such as subsidiary debt limitation and upstream guarantees. ECRL also recognizes that tax authorities and possibly other government bodies may rank higher in the ratee's hierarchy of the creditors.

Reserve Funds or Special Accounts for Assignments of Revenue may in certain instances add confidence that cash will be available for debt service on a timely basis. To be considered positively in the rating process, accounts established have to be separately managed by responsible parties and mechanisms must be created to ensure that there is no leakage of pledged revenues. The tenure of the instrument being rated should preferably in some way be related to the assets or activities financed with the instrument. This consideration diminishes in importance as the corporation issuing the obligation becomes stronger, as in such cases repayment of the instrument will typically be less directly reliant on cash flows attributable to the investment financed by the subject issue. The covenants the rating analyst would prefer to see (even if the issue being rated is expected to be bank guaranteed) are the following:

Limits on additional debt – The covenant can be phrased in a couple of different ways, either as an absolute amount of debt than can be issued, usually with some caveats, or as an interest coverage test. Such a test might say, for example, that no additional debt may be issued unless earnings before interest and taxes for the past 12 months are at least two times pro forma interest expense.

Limits on distributions – Such a covenant places some controls on dividends, advances or loans upstream or downstream and sales or dispositions of subsidiaries and uses of proceeds thereon. Proceeds from "significant" asset sales are usually required to be used to repay debt or reinvested in similar assets within a reasonably short time frame.

Negative pledge – If a holding company is the issuer of the debt, but the earning power and cash flow generation capability is at the subsidiary level, a guarantee of the debt by the subsidiary would make the holding company debt equal in terms of priority to the subsidiary's unsecured debt. Holding companies guaranteeing subsidiary debts can also make sense under certain conditions.

Events of default – This section spells out the conditions under which a debt holder has the right to accelerate repayment. The most critical item is the cross default provision, which would state that a default on any obligation represents a default on all obligations. This stops a borrower from deciding it will pay some debts and not others. The inclusion of covenants, even in bank guaranteed issues, is a statement by management that it is willing to operate within certain boundaries, and as such should be viewed positively.

Of course, a firm’s agreement to abide by indenture covenants does not necessarily mean that it will be able to do so. Covenants which are so tight that only a small variation from plan would cause an event of default are viewed with concern.