

Municipal Credit Research
U.S. Public Enterprise Systems Methodology

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U.S. Public Enterprise Systems Methodology

The Morningstar public enterprise system credit analysis methodology is prospective and focuses on our expectations of an entity's projected ability to meet debt service obligations through the life of its bonds. The enterprise criteria cover systems that provide a variety of services, including utilities, transportation, education, and health care.

Morningstar's assessment for enterprise sectors under U.S. public finance is driven by five key pillars:

1. Scope of operations and market position
2. Economic strength
3. Financial condition
4. Debt and long-term liabilities profile
5. Management and operating environment

Using this set of criteria, Morningstar arrives at an issuer rating, similar to a net revenue pledge rating, which serves as the baseline rating for the issuer.

We incorporate recent measures as well as historical trends into our analysis to inform us of current strength and the prospects for when and how change will occur. We review data from a variety of sources, including federal and state agencies as well as other governmental and organizational disclosures. Additionally, Morningstar employs proprietary measures to ensure a complete analysis. Morningstar notes that not all credit factors detailed in the sector methodology will apply to every entity, as enterprise issuers are a diverse set of organizations, providing a wide degree of services in disparate settings.

Scope of Operations and Market Position

Market position measures the entity's ability to attract and retain a customer base. The significance of market position varies among entities, but serves as a critical component for all.

An entity's scope of service offerings has an impact on its current and potential customer base. Analysis of the scope of services considers type and breadth of services offered as well as the size of operations. A larger scope of operations can buffer against economic cyclicality, contribute to economies of scale, and broaden the potential customer base. Morningstar will also examine how established the system is in terms of length of existence as well as sophistication of service delivery.

Competition measures the saturation of entities that provide similar services in the service area. In areas where market competition could be a concern, Morningstar considers an entity's market position relative to its peers, reviewing the essentialness of products and services offered, rate structure, switching costs and service delivery systems. A high degree of area competition can put a practical constraint on an entity's rate-setting ability. Perceived value of

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the service rendered as well as demand for services can also affect market position. Where applicable, philanthropic support will also be reviewed, including the system's history of meeting philanthropic goals, maintenance or growth in donor support through economic cycles, the breadth and diversity of donors, and continued philanthropic cultivation.

Economic Strength

Analysis of the strength and stability of an entity's economic condition is central to Morningstar's approach to credit analysis. This economic profile drives the demand for services and expenditures, as well as the revenue-generation capacity to support service needs, overall operations and debt repayment. To understand an entity's economic profile, we determine the service area and customer base, compute the basic type of the economy and major industries, employers and taxpayers driving economic activity; and its demographic characteristics including customer levels, population, wealth, and labor force measures.

Economic Type and Scope

Morningstar evaluates basic economic type and scope of the area in order to understand an entity's overall stability and resilience during economic disruptions. We review industry and employer concentration. Additionally, we assess whether the service area serves as a regional economic center or how far it is from one as well as whether there is an institutional presence that dominates its economic base. Generally, Morningstar expects highly diversified economies to remain more stable than those concentrated in a particular industry, over the longer term. This is due to the fact that both revenue-generation ability and expenditure demand are contingent on the underlying economic structure and performance of the service area. Current economic development is also considered, as well as growth trends.

Demographics

Measurements of a population's ability to pay are important analytic factors in Morningstar's approach to credit analysis. As basic metrics, Morningstar reviews trends in customer levels, population size, and age as indicators of revenue-generating strength and expenditure drivers. Rapid population and customer growth could indicate a strong economy as well as the need for additional capital and operating resources to support a more populous service area and expanding customer base. Conversely, waning populations could indicate current or future customer contraction, an industry's decline and job losses in the area, possibly pressuring both revenue collection rates and service demands. Compositional elements of population growth and decline are also considered, especially in certain enterprise areas, such as higher education and health care; changes in the ratio of working age population (ages 18 to 65) to those being supported (younger than 18 and older than 65) help inform our understanding of future revenue flows and expenditure burdens. Various measures of wealth, both on a per capita and household basis, are also included in our analysis. Poverty rates and income indexes are reviewed both in absolute values and relative to area, state, and national averages. Housing characteristics such as median home values, building permit trends, and foreclosure rates are also considered. These measures, coupled with employment data, including the size of the labor force and unemployment, provide an understanding of an area's overall economic health.

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Financial Condition

Morningstar's analysis of an entity's financial condition includes a review of operating consistency and reserve levels over time. Our analysis includes an overview of all funds, with emphasis placed on the major operating fund as well as any other funds as deemed significant by the analyst. We review balance sheet measures such as cash positions and asset levels, which aid us in understanding an entity's liquidity position. Additional factors considered include revenue diversity and volatility, expenditure flexibility and various budgeting practices to inform us of a system's overall financial health and stability. In general, entities with greater financial flexibility are expected to provide a lower risk to bondholders because of an increased ability to address unforeseen stressors.

Balance Sheet Analysis

Operating asset levels and cash positions are key metrics in our review of financial health. Specifically, we note trends in operating margins, unrestricted asset levels, and days' cash on hand in our overall measure of an entity's current liquidity position. Morningstar's balance sheet analysis also entails a detailed assessment of receivables and likelihood of receipt. These ratios serve as measures of resources available to mitigate pressures resulting from unforeseen changes in revenue or expenditures.

As noted under the management pillar discussion, Morningstar recognizes that various asset levels and cash positions are appropriate for different organizations based on revenue-raising capacity, expenditure flexibility and operating environment. Meanwhile, areas with rapidly increasing customer base and/or service needs tend to require higher asset margins in order to provide an adequate operating buffer. We note trends of declining assets and narrowing cash as potential credit concerns.

Revenue Diversity and Volatility

Morningstar reviews an entity's revenue sources and growth trends to assess whether they match an entity's budgetary needs. We examine whether income is derived from a narrow or diversified set of sources, and the relative volatility of each source. Additionally, we review whether revenue growth comes from recurring sources or one-time events to further gauge stability in future income statements. Entities with diverse revenue streams and revenue growth driven by recurring sources tend to perform better against challenging economic climates.

Expenditure Flexibility

To understand an entity's expenditure flexibility, we evaluate general cost drivers, expenditure growth rates, and the entity's ability to control spending. We determine the proportion of fixed costs through a review of items such as debt service and pension contribution schedules, and note to what extent the system services offered are required or discretionary. An entity with a higher proportion of fixed costs and which offers more services that are required by policy or legislation generally has less control over annual spending and less flexibility to react to exogenous stressors.

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Debt and Long-Term Liabilities Profile

In our debt and long-term liabilities analysis, Morningstar examines an entity's long-term financial commitments, including borrowing, pension, and other post-employment benefit, or OPEB, obligations. Analysis of debt obligations includes an examination of the debt burden as well as the debt structure and projected future debt needs and capacity. Ultimately, Morningstar is assessing the entity's ability to meet these obligations over their maturity schedule and the accompanying impact on the overall financial profile. Capital needs are analyzed to project what the debt profile will look like over the medium term. Additionally, the entity's ability to identify and maintain capital needs is critical, as deferred maintenance can lead to larger capital costs in the future.

Debt Burden

Debt burden measures the extent to which an entity leverages its revenue in relation to the customer base. Additionally, Morningstar examines debt service as a percentage of spending that serves as measure of debt burden as well as budgetary flexibility. Debt service coverage and legal covenants are also key rating drivers. For example, revenue bond analysis incorporates the size, diversity, and volatility of the revenue source being pledge for repayment, debt service coverage, additional bonds test, debt service reserve fund, and plans for additional leveraging of the security. Project essentialness and construction risk will also be considered.

An entity's use of short-term debt is also evaluated and compared with the entity's liquidity position and timing of cash flows. As short-term debt is scheduled to mature, Morningstar will consider the entity's market access as well as its plan either to retire the debt or to provide long-term financing.

Morningstar's debt calculations may differ from an entity's definition under certain circumstances. Short-term and long-term debt as well as capital leases and lease revenue obligations are included.

Debt Structure

The use of various security structures and the current amortization schedule, as well as variable interest rate and derivative products, are factored into Morningstar's analysis of debt. The debt structure may serve as an offsetting factor to the debt burden, depending on future capital needs. In general, the life of the bonds should be no longer than the useful life of the project.

For variable rate debt, Morningstar considers the terms of the current liquidity agreement and procurement plans for future liquidity. Interest rate swaps are examined, including the mark to market, or MTM, calculation and the entity's ability to absorb termination costs or collateral requirements if necessary.

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Capital Needs

An entity's upcoming capital needs are a key driver for its future debt burden and financial flexibility. An entity's ability to identify and fund necessary capital needs without significantly hindering financial flexibility are critical to long-term credit stability.

The presence of a regularly updated multiyear capital improvement plan, or CIP, outlining an entity's projected capital needs and projected funding sources, is viewed positively by Morningstar. Morningstar considers the infrastructure needs of an entity relative to stage of development. For instance, areas experiencing rapid customer growth or that have aging infrastructure are expected to have more substantial capital needs than those in the middle of their infrastructure cycle. We consider the regular monitoring and maintenance of assets as a credit positive.

Funding sources for upcoming capital projects are also considered. A high proportion of pay-as-you-go capital funding limits the debt burden and provides additional financial flexibility in economic downturns as projects can be delayed or alternatively funded. Projected bond funding is analyzed in the context of the debt burden, with any substantial change in the expected debt burden potentially leading to a change in the rating. However, Morningstar notes that capital plans are used as planning tools in differing capacities, with some including projects and funding that are definitely expected to occur, while others compile more of a "wish-list," some of which may not materialize fully over the life of the plan.

Future Debt Capacity

An entity's future debt capacity is analyzed in relation to projected capital needs, existing debt burden, and expected amortization schedule. The current debt service structure factors into future debt and financial flexibility with projected declining debt service serving as a credit positive, while escalating debt service could hinder an entity's ability to meet its capital and liquidity needs going forward. Morningstar considers the 10-year amortization rate as a marker for future debt flexibility.

Pension and OPEB Liabilities

Other long-term liabilities, largely consisting of pension and OPEB obligations, are included under an entity's debt analysis as they represent long-term future costs. In most cases, they are recorded as "soft" liabilities, as projected obligations are affected by investment returns and actuarial assumptions while future benefits can be adjusted under certain circumstances. However, some jurisdictions have issued bonds in order to fund these future costs, converting the soft liability into a hard liability.

For both pension and OPEB liabilities, Morningstar evaluates the magnitude of the liability and assesses the entity's ability to meet these obligations over the long-term along with the accompanying projected impact on future financial flexibility. Key components of Morningstar's pension analysis include historical actual pension contributions relative to the actuarial required contribution, or ARC, the funded ratio and pension contributions as a percentage of total spending levels. The feasibility of investment return assumptions are considered when analyzing long-term liabilities, along with each plan's asset valuation methodology.

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The level of benefits provided under OPEB, including whether the benefit is implied or explicit, whether spouses and dependents are covered, as well as if benefits cease upon the start of Medicare eligibility, are all considered. While most entities still fund OPEB on a pay-as-you-go basis, the funding of the full ARC is held to be a credit positive. OPEB spending as a percentage of total spending, along with the funded percentage, are also considered.

Management and Operating Environment

The willingness and ability of management to secure the financial stability of an entity through all stages of an economic cycle are key drivers of our public finance credit ratings. A strong government team maintains fiscal discipline during positive revenue environments and makes appropriate budgetary adjustments during economic downturns.

Morningstar notes an entity's adherence to prudent fiscal and debt policies, and fiscal planning methods, as well as disclosure and accounting practices. Morningstar also analyzes each entity's operating environment, consisting of legal constraints and political atmosphere, both of which have an impact on an entity's ability to manage. While legal constraints establish quantifiable limitations on fiscal authority, qualitative factors such as political environment can be equally important, often creating practical barriers that have an impact on operations.

Board and Senior Management

We examine an entity's governing board and senior management. Key criteria include the structure of the board, appointment and tenure procedures, and industry experience of members. Interaction between the governing board and senior management is reviewed. Oversight from a governmental entity, especially with utility systems, is also considered.

Fiscal Policies

The implementation of and compliance with prudent fiscal and debt policies are prime examples of management's direct impact on overall credit quality and are viewed positively by Morningstar. While policies can either be self-implemented or mandated by outside entities, management is a critical determinant of the entity's ability to remain in compliance with such policies. An operating reserve or liquidity policy is a key indicator of sound management as it provides a buffer against cyclical downturns or unforeseen budget variances. Because a "one size fits all" approach does not accurately indicate an appropriate reserve scale for all entities, Morningstar analyzes the relative soundness of reserve levels in relation to many factors, including revenue and expenditure volatility and service area growth rates, as well as infrastructure needs and regulatory requirements.

Debt policies typically limit the maximum debt burden and potential debt structures, including the use of derivatives, maximum maturity, and alignment of expected life of project with the final bond maturity. A policy regarding transfers or payments to an overarching governmental entity, when applicable, is helpful in determining potential risk in our analysis. Other policies delineating practices for investments, balanced budgets, and use of one-time revenue are also examined as fitting the entity and its needs.

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Maintenance of timely disclosure, including the regular release of audits, is also reflective of managerial discipline. Annual financial reports are used by Morningstar to analyze financial, economic, and debt profiles. Historical and timely release of these reports will be monitored by Morningstar as will the presence of any audit findings. Additional best practices for accounting include adherence to Generally Accepted Accounted Principles, or GAAP, and Governmental Accounting Standards Board, or GASB, standards.

Fiscal Planning

Effective use of short- and long-term fiscal planning, including the timely adoption of annual budgets and the use of multiyear financial plans, is also considered. On a current basis, ongoing budgetary monitoring is considered to be a credit positive by Morningstar. Specifically, we examine interim financial reports and evaluate the accuracy and robustness of such reports as well the system's ability to make effective midyear budget adjustments.

Morningstar evaluates an entity's historical year-end financial results as compared with original operating budgets to gauge management's ability and willingness to accurately predict and react to its operating environment. A review of future budget assumptions and forecasting practices also informs us of the reliability of expected financial performance.

Legal Constraints

Constitutional and statutory rules shape the environment in which all institutions operate. Contingent on underlying changes in the economic and demographic environment, legal provisions may enhance or hinder entities' ability to execute actions with positive rating effects.

Legal limits on enterprise systems' fiscal autonomy may originate from federal mandates, state constitutional and statutory provisions, local charters and court rulings. The source of the legal constraint is an indicator of the level of changeability of the provisions; federal and constitutional rules are largely immutable, whereas statutory provisions and court rulings may be amended and overturned with changing legislatures and judiciaries.

Legal constraints on fiscal flexibility can take the form of revenue-raising mandates as well as limits on expenditure autonomy and debt issuance authority. Depending on the issuer, a varying amount of these restraints may be relevant. Limits on revenue-raising capacity can take the form of legal restrictions on rate increases or introductions of new charges. For enterprise systems, rate covenants are often dictated in legal documents. Expenditure autonomy can be restricted through federally or constitutionally mandated appropriation requirements, regulatory standards, and legal expenditure limits. Costs related to compliance with current or projected regulations may have a significant impact on spending levels. The effect of these types of provisions on fiscal decision-making depends on the language, embeddedness, and override mechanisms, as well as political will to execute laws as intended. Other legal provisions considered by Morningstar include right-to-work legislation.

Political Environment

Political factors such as legislative party alignment and executive veto power are informative for assessing resistance to political stalemates, especially in areas where supermajority

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authorization is required to overturn existing rates, expenditure, or debt limitations. Labor relations also play a critical role in enhancing or hindering an entity's ability to negotiate staffing levels, worker compensation, and post-employment benefits and ultimately control expenditures.

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