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## Global Infrastructure Assets And Highly Leveraged Concessions Raise New Rating Considerations

Infrastructure as a broad asset class continues to draw considerable interest from an increasingly broad constituency of market participants. Not surprisingly, recent transactions have developed to seize new opportunities to meet the specific requirements and objectives of both public and private sector entities, bringing with them unique rating considerations.

Following a previously published Standard & Poor's Ratings Services article (" ", Feb. 23, 2006, RatingsDirect), this report develops rating factors associated with transactions across various infrastructure sectors.

Future commentaries tailored to particular geographical jurisdictions and specific asset classes will follow as the market develops.

### **Overview**

Credit issues common to infrastructure assets addressed here include:

- Different financing frameworks and how a transaction's contractual and financial structure affects Standard & Poor's analytical approach;
- How long-term volume risk and stress testing relate to a project's financial and contractual framework;
- The interaction of an infrastructure asset's business and financial profiles; and
- How financial profile issues (such as capital structure, dividend policy, swap dependencies, and equity tail affect long-term concession ratings.

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Our primary conclusions in terms of credit quality emphasize the importance of a supportive legal framework, conservative transaction structuring, strong contractual protections, a solid market position, and the use of prudent assumptions about future project costs and revenues to achieve investment-grade ratings. All things being equal, the more aggressive the financial structure, the less robust (or more optimistic) the business profile, the weaker the legal provisions, and the greater the contractual risk allocation to the operator, the lower the rating on a long-term concession or infrastructure asset. Stress tests and sensitivity analyses play a key role in our analysis, particularly when the financial structure is predicated on significant and sustained revenue growth.

It is our view that, regardless of asset class, long-term project finance ratings should be robust enough to withstand a full business and credit cycle. Infrastructure assets that expose lenders to volume risk (the risk of lower volumes and reduced revenues) should be able to withstand material downside departures from expectations at the investment-grade level.

Finally, factors that favorably influence financial profiles over the long term—be they covenants at the time of financing, imbedded in concession agreements, or via policies adopted by management over time—can have a direct effect on improving credit quality, although there are upside limits in compensating for weaker business profile fundamentals. Project finance and concession structures can, in general, support high initial leverage. However, for long-term concessions, such high leverage should be accompanied by a corresponding function that amortizes senior debt without prejudicing senior lenders by deferring senior debt repayment to the deep future, where risk factors are more prevalent. This is particularly true for long-dated, accreting debt structures reliant on growth and refinancing.

### ***Market Activity***

By all measures, the infrastructure market is heating up. Based on both completed transactions and market activity relating to proposed transactions among project sponsors, developers, owners, and equity investors, there is considerable interest in long-term infrastructure assets and transactions.

Examples of these assets and transactions have involved:

- Publicly owned North American transportation assets put out to bid for long-term leases, such as the 75-year, \$3.6 billion Indiana Toll Road lease in 2006 and the \$1.83 billion Chicago Skyway 99-year lease in 2005;
- Considerable global activity in acquisitions and sales of infrastructure related to airports, exemplified in Airport Development and Investment Ltd.'s June 2006 acquisition of airport operator BAA PLC (BBB+/Watch Neg/A-2), and Chicago's (AA-/Stable) potential long-term lease of Midway International Airport (A-/Stable);
- Maritime and port-related facilities, leading to the likely divestiture of DP World's U.S. port operations;

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- Automobile parking lots, marked by a New York City Icon Parking transaction in June 2006 and the current request for proposal for the long-term lease of the Chicago Downtown Public Parking System; and
- Toll roads, notably the 2006 sale of France's remaining shareholding in toll road network operators to Autoroutes Paris-Rhin-Rhone.

Several of these transactions highlight the potential for immediate cash payouts for public sector enterprises by monetizing infrastructure assets via long-term leases, while others demonstrate how equity funds and similarly situated equity investors wishing to purchase infrastructure can make a market for traditional owners and operators. The motivations among parties, which vary but align to result in significant valuations, include the following:

- For public sector entities: the ability to defease debt, focus on other core governmental programs, and fund capital programs or other general fund purposes such as unfunded pension liabilities or retirement health benefits;
- For private sector infrastructure owners: the ability to divest noncore assets and sell into a favorable market as a means of meeting other business objectives; and
- For lenders, particularly pension funds and life insurance companies: the ability to invest in long-term, inflation-indexed (through toll or other cost-of-service pricing models), and stable investment-grade debt securities that match their long-term inflation-indexed liabilities (such as pension plan commitments or life insurance annuities).

### ***Financing Structure: Legal Features Define Our Analytical Approach***

The terms "securitize," "structured," "collateral," and "project" are generally applied to transactions associated with the financing of long-term infrastructure assets. These concepts have specific legal and structural meanings that guide our analysis. There is movement toward blending traditional and new financing solutions by project sponsors for a variety of reasons, including providing sophisticated financial products to demanding investors, maximizing credit quality, increasing overall leverage, and optimizing the sponsor's returns.

The following represents a cross-section of infrastructure financing structures commonly proposed to Standard & Poor's:

- Traditional corporate or municipal financings;
- Conventional term (25-35 years), single-asset project finance concessions, including most public-private partnerships (PPPs);
- Long-term (50-99 years), single-asset lease concession contracts, both with and without equity contributions in the capital structure;

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- Corporate securitizations whereby a company raises debt, the repayment of which is provided for by substantially all of its operating assets and characterized by such features as liquidity reserves, structural payment subordination mechanisms, and structured finance transaction features (with asset trustee and associated contracts, among other covenant protections); and
- Collateralized debt obligations backed by PPP loans initially used to fund infrastructure and concession projects.

Standard & Poor's has published various commentaries and criteria pieces addressing these structures. The common feature is the contractual framework governing lenders' protections. This, in combination with the rating considerations associated with the host jurisdiction of the project, establishes Standard & Poor's approach and our selection of peers and comparables, which may involve different asset classes and sectors. However, while influencing our approach for deep future structures, the critical elements of our analysis—understanding the fundamental business and financial propositions for the credit—remain unchanged regardless of legal features of the transaction. Therefore, our focus here is specifically on the concession model and its applicability to infrastructure assets.

The very nature and purpose of a project or long-term concession financing is changing the financial profile of infrastructure transactions in many ways. In the past, revenue bonds and project finance transactions were undertaken using amortizing debt obligations with maturities no longer than 30 years, generally reflecting the tenor of the concession. Many infrastructure financings are now undertaken for merger or acquisition purposes, or to fund capital expenditure commitments related to the asset.

One consequence of these market developments has been more leveraged and sophisticated financing structures. These can employ debt securities with features such as bullet maturities (enhancing refinancing risk), as well as partially accreting debt or debt with swap agreement overlays to create the same economic effect as capital appreciation bonds (CABs). The aggressiveness and timing of proposed equity distributions and debt-financed capital returns in many of the projects or acquisition financings is unprecedented.

The benefits of a concessions framework are clear and, if properly structured, can provide the types of lender protection that allow for significantly higher leverage levels than those observed in corporate financings. Covenant and structural features afford lenders protections not typically enjoyed by holders of unsecured corporate bonds. These include establishing a special-purpose entity (SPE) meeting Standard & Poor's SPE criteria for projects. Such an entity is treated as being "bankruptcy remote" (within certain parameters) from its sponsors and suppliers. Other structural features include structural subordination (assuming a operating company and holding company arrangement) and financial surety arrangements, all for the benefit of senior lenders. Concession agreements may also remove political risk by providing a legal and regulatory framework for toll or other rate setting, mitigating the effect of a change of law, carefully delineating the termination and payment process, and imposing restrictions on additional debt. Supportive governments sometimes also add a minimum revenue guarantee to new

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assets to partially eliminate traffic risk to the concessionaire. Consistent with their lease-like nature, such concessions may be viewed as more restrictive than many other forms of financing.

Other things being equal, three types of covenants can provide a measure of predictable credit enhancement. The first, the “permitted distribution” test, precludes dividend distributions or repayment of shareholder loans in some cases to sponsors and equity unless certain forward- and backward-looking tests are met, creating cash balances for bondholders and other lenders. In general, since the debt service coverage ratios (DSCRs) of concession financings are generally low, when the “permitted distribution” is harmonized with the minimum DSCR in the project’s base-case financial model, lenders will enjoy a greater amount of trapped cash (subject to the security arrangements of the financing agreements) in times of stress.

Equally important is the “unlock trigger,” which allows the resumption of distributions to sponsors and equity. This covenant puts the burden of actual financial underperformance initially on sponsors and equity by requiring that financial performance of the project meet a DSCR test for a period of time prior to allowing equity to begin receiving distributions.

Third is the “additional indebtedness” test, which seeks to keep the project from extending itself by restricting debt-financed activities (including further acquisitions), to the extent they cause the project’s DSCR to erode below a stated figure. We generally rate the project on the assumption that it will incur additional indebtedness up to the “test level,” as the SPE could incur such debt to this level while remaining in compliance with its covenants.

### ***Revenue Reliance: Stress Testing The Uncertain***

Our approach to the evaluation of long-term revenue projections derived from infrastructure assets often affects our sponsors’ financial modeling capital structuring, or “gearing.” Revenue projections are the product of demand forecasts predicated on assumptions regarding future rates and tariffs, rate elasticities (changes in demand with respect to price), inflation, economic growth, and other macro- and micro-economic factors. Sponsor forecasts are usually accompanied by various sensitivity and stress scenario results employing alternative (typically downside) input assumptions. Equity providers or lenders often prepare their own forecasts with different (usually more conservative) assumptions—again, with their own sensitivity and stress scenarios. As a result, there is typically no shortage of asset usage or revenue projections to evaluate.

The tendency toward optimism in traffic and revenue studies and Standard & Poor’s basic approach to analyzing the toll roads sector is outlined in our article “Credit FAQ: Assessing The Credit Quality of Highly Leveraged Deep-Future Toll-Road Concessions.” However, many of the same principles apply equally to other asset classes.

Important points to emphasize include the following:

- There is no specific usage or revenue growth rate that we view as being consistent with the confidence levels required to be investment grade. Each individual asset must be examined within its

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own specific context. Revenues resulting from price increases beyond inflationary corrections (without robust price inelasticity justification) are counterintuitive, and therefore less credible. Demand forecasting models have many limitations, and their global track record for accuracy—even over short time horizons—is poor. Even with justification, any revenue uplift due to price inelasticity should be restricted to the near-term (years one through five). The compounding uncertainties associated with medium- to longer term forecasting horizons suggest that particularly conservative growth rates should be assumed thereafter.

- The project sponsors' revenue forecasts often reflect an asset's potential performance, and as a result are higher than what we might view as achievable at an investment-grade level of certainty. In response, we often apply adjustments to sponsors' base-case projections before overlaying our own stress tests and sensitivity analyses. As a result, we are often asked, "What value is derived from consultants' reports if Standard & Poor's subsequently makes adjustments and focuses only upon downside sensitivities?" While typically characterized by smooth and continuous year-over-year growth (an assumption commonly violated in practice), sponsors' revenue forecasts provide analysts with an analytical starting point by clearly defining the underlying assumptions for key variables and their interrelationships. This enables us to assess the robustness of model outputs and devise an appropriate program of sensitivity tests to be run through the financial model.
- We therefore take a view of what revenue growth rate is consistent with the credit rating aspiration within the wider context of the other transaction characteristics that affect on credit quality. High growth rate assumptions may be acceptable in the speculative-grade categories; all things being equal, however, lower growth rate assumptions are commensurate with investment-grade debt. Generally, Standard & Poor's looks to stress cash flows to the proposed permitted distributions DSCR (cash trap) level and the 1.0x DSCR break-even level by applying downside sensitivities to the following variables: asset usage, tariff or fee escalation, price elasticity, construction costs and schedules, operating and maintenance (O&M) costs, major maintenance capital expenditures, inflation assumptions, and refinancing assumptions, as well as any combinations thereof. In addition, we will also conduct scenario analysis to determine the effect of discrete sets of downside tests on project cash flows.
- The purpose of this sensitivity testing is, of course, to assess cash flow resilience to downside scenarios. Standard & Poor's often employs the same or a similar basket of stress cases within and across infrastructure assets. This is not because all projects are equal. Rather, it allows us to compare a specific project's robustness to stress against other peers within Standard & Poor's public and private rating universe. Stress test robustness is as important, if not more, than base-case financial model performance, and ultimately can be the credit quality differentiator for projects.

Our contextual analysis of revenue forecasts incorporates a transaction's structure and all features of the revenue-generating asset that provide security for lenders. The asset or assets pledged, the relative market position, and the resulting revenue flow and mix are all factors that influence our view of future revenue growth. However, regardless of the transaction's structure, the basic principle applies: the less comparable the assets, the less compelling the business case, the higher the reliance on volume risk, the

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more our analysis will focus on project-level risks and a detailed examination of specific and potentially evolving market demand dynamics. In the end, an investment-grade level of risk must incorporate, and give weight to, conservative projections that allow for the inevitable declines that have the effect of reducing long-term growth rates.

### ***Interaction Of Business And Financial Profiles: Trade-Offs At The Investment-Grade Level***

A project with a stronger business profile can generally accommodate a more aggressive financial profile at a certain rating level. In assessing the business profile strengths and weaknesses of a long-term concession or infrastructure asset, we examine:

- The breadth and strength of its service area;
- The robustness of its rate-setting framework;
- The asset's relative competitive position; and
- Factors that affect demand, such as the price point and price elasticity.

As stated earlier, the strong business profiles and generally robust cash flow streams of infrastructure assets, together with strong covenant packages and supportive structural features, generally allow projects or companies to be more highly leveraged than an unsecured corporate entity at the same rating level. In addition, however, the private management of a formerly publicly managed infrastructure asset presents revenue optimization and cost-saving opportunities that may not have necessarily been a priority for a public sector body.

This is relevant since the acquisition multiples and debt burdens (relative to earnings before interest, taxes, depreciation, and amortization, or EBITDA, and revenue) for many long-term toll concessions observed at financial close have been significantly higher than for comparably rated corporate borrowers. In this respect, the confidence in achieving such projected revenue and EBITDA growth is very much an issue as the medium-term projected debt-to-EBITDA and debt-to-revenue ratios are generally closer to corporate credits, although still high compared with similarly rated corporate entities. Moreover, aggressive revenue and EBITDA targets—driven by ambitious tariff and demand activity (traffic, parking activity, tonnage, or maritime containers, for example)—could accentuate the uncertainty in achieving those more “normalized” debt metrics over the medium term.

As part of our business profile analysis, we generally note that the involvement of the private sector in a service that was formerly managed or delivered by the public sector typically imposes minimum service standards and performance obligations on the concessionaire through contractual requirements. The private sector may also be bound by formal regulation or less-formal public sector policy supervision or oversight to ensure that service users are represented and protected.

A strong business profile for long-term toll concessions and infrastructure providers would include some combination of the following characteristics:

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- Essential or high-demand service;
- Where user fees are involved, a high degree of demand inelasticity with respect to rate increases;
- Monopoly or near-monopoly characteristics, or, alternatively, few providers in the industry with substantial barriers to entry and limited incentives for competition among these service providers;
- A favorable legal environment and regulatory regime;
- Limited government policy and change-in-law risk;
- A favorable rate-setting regime, although we recognize that it is rarely unfettered and, even then, may be subject to challenges or future political contention;
- Strong bargaining power in relation to suppliers and customers;
- Low, contained, or manageable ongoing capital expenditure requirements; and
- Strong counterparty arrangements with, for example, contractual off-taker agreements or remittance of payments from a highly rated public sector entity.

Our business profile analysis also focuses on the physical and economically useful life of a toll road or other infrastructure asset, to which to link amortization and the final maturity of debt (particularly if the asset risks obsolescence, substitution, or increasing competition). For this reason, there are no fixed standards for acceptable investment-grade leverage levels, credit ratios, or debt amortization requirements. Each credit is assessed independently on all of the above factors, although broad business profile distinctions reflect the strength of certain asset classes.

Stress test robustness is a key rating factor, yet it remains a relative, rather than absolute, parameter. For example, an infrastructure credit with a very low DSCR (such as a PPP project) that exhibits negligible net cash flow variability (available to service debt obligations) could be rated the same as, or even higher than, an infrastructure company with much higher DSCRs but with full volume risk and significantly greater underlying net cash flow volatility.

Finally, business profile differences can result from the country in which the asset is domiciled or the company operates. Certain jurisdictions benefit from more creditor-friendly legal regimes that can contribute to infrastructure project rating differences. Infrastructure project financings are generally more susceptible to local law exposure than other types of structured financing because of the physical location of the assets and the often essential and politically sensitive nature of the assets. For further information, see our analysis of various European insolvency regimes, “Jurisdiction Matters For Secured Creditors In Insolvency,” published April 13, 2006, as well as “Emerging Market Infrastructure: How Shifting Rules Can Stymie Private Equity,” Sept. 5, 2006, on RatingsDirect.

***Effect Of Financial Profile Issues And Swaps On Long-Term Concession Ratings***

Standard & Poor's review of an infrastructure provider's financial profile includes, among other factors, examination of the capital structure and leverage, dividend policy, operating margins, and debt and DSCRs, as well as an assessment of the reasonableness of the assumptions incorporated within the base-case financial model. The financial model provided by a sponsor approximates the financial profile of the issuer over a long timeframe. However, this projected financial profile may better reflect what the sponsor wants to happen rather than what is likely to (or could) happen.

We've observed a more ambitious approach to the capitalization and structuring of infrastructure assets having an already strong business profile. This could be due to aggressive equity-return targets leading equity investors to capitalize strong business profile infrastructure entities with significant debt, given the positive effect of leverage on equity returns.

Higher leverage compared with corporate credits at the same rating level could be partly attributable to the structural protections and legal provisions afforded to lenders, as well as the stronger business profile of infrastructure assets that produce less-volatile cash flow streams. In addition, infrastructure assets and long-term concession companies are generally less labor-intensive and generate greater EBITDA margins, thereby providing further uplift to their DSCRs than what might be implied by their debt capitalization.

In the instances of public assets put out to bid, an important analytical issue Standard & Poor's evaluates (as we examine revenue enhancement and cost synergies) is whether the asset had been managed so inefficiently (in terms of the incremental EBITDA pick-up proposed by sponsors) that the financing package can justify the proposed acquisition multiples and leveraged levels, which have been more aggressive.

Another consideration related to potential long-term concessions and infrastructure asset-acquisition transactions is the appropriate level of risk that should be assumed at an investment-grade level for financial structures that:

- Have a very high level of debt, perhaps including bullet debt maturities with steep repayment peaks that introduce refinancing risk;
- Presume significant revenue growth and price increases relative to historic levels, together with user price inelasticity in response to such price increases;
- Have long-dated debt based on lengthy concession terms (to 50, 75, or 99 years) and operate under presumed favorable, but untested, regulatory regimes; and
- Incorporate accreting, defer-pay debt structures, including CABs or accreting swaps, which cause debt to rise rather than stay constant or decline and also allow for higher dividend distributions (after satisfying DSCR based permitted distribution tests) to equity interests.

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Simply, accretion increases debt at a time when, in many instances, a project's risk profile and exposure to unforeseeable circumstances could also increase. By themselves, traditional DSCRs are of limited analytical value when a financial profile has significant accreting debt or accreting swaps because the level of the cash flow deferral early in the concession term overstates these ratios. To this end, Standard & Poor's estimates the DSCR profile that would result from the absence of accretion and debt capitalization. This is of particular value in the review of the early years of a concession, when accretion features exist to tailor debt repayment to revenue growth assumptions. In calculating the cash-based (nonaccreting) DSCRs, Standard & Poor's includes in the coverage ratio denominator the project's actual cash-based payment of debt and swap obligations, as well as the capitalized amount that is deferred and added to the project's debt balance. This adjusted DSCR calculation complements the review of the percent rise in debt (due to accretion) that occurs from the original issuance to the project's maximum peak debt balance (including accrued swap amounts owing).

In calculating DSCRs, Standard & Poor's includes in the numerator operating revenue (excluding interest, earnings from asset sales, debt or equity proceeds, and insurance proceeds) minus O&M expenses (including mandatory major maintenance reserve account deposits). The DSCR numerator also excludes swap payments to the project from the swap counterparty, as these payments are viewed as a pass-through to meet the project company's obligation to a debt provider. In addition to traditional cash interest obligations, the denominator for debt service includes any monoline bond insurance costs and swap costs associated with synthetic debt products.

Therefore, in coming to its determination of the project's financial profile, Standard & Poor's assesses the magnitude of the accretion in the concession's early years along with the schedule and pace of debt repayment, in addition to considering dividend policy, leverage, revenue projections, and O&M and capital cost assumptions.

Deferred-pay mechanisms and nonamortizing structures can inject flexibility into an infrastructure financing structure, especially under more aggressive revenue growth assumptions. However, these features introduce additional risk for senior lenders. Significant dividend distributions remitted as a result of the project company's excess free cash flow—produced by senior deferred debt repayment—effectively puts equity ahead of debt in the payment structure, a reversal of the traditional role of capital structure and funds flow subordination. In the traditional role, equity acts as patient capital and a buffer for senior debt during periods of project cash flow weakness and is not seen as earning a notable proportion of its projected return ahead of senior debt. The greater the ability of a project or company to defer debt payments, with the practical effect of augmenting early period equity distributions, the higher the transfer of risk to senior debt and the greater the potential effect on credit quality.

For long-term concessions and infrastructure credits, the greater the leverage and more prominent “deferred pay” debt and equity dividend distributions (at the expense of senior debt relative to senior principal repayment (as measured by dividends payable as a percent of EBITDA), the lower the rating. Moreover, aggressive financial structures, combined with less robust business profiles, weaker legal

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provisions, and notable contractual risk allocation to a concessionaire, will typically result in speculative-grade ratings.

Finally, refinancing risks are considered manageable for strong business profile assets that benefit from long-dated concession terms and generous equity tails. For example, several Chilean toll road concessions incorporate flexible payment mechanisms but also refinancing risk, which is typically covered through third-party lines of credit. As a guide, for larger transactions, investment-grade ratings might be difficult to achieve if more than 20% of total debt is due to be retired in any two consecutive years.

### ***Swap dependencies***

Floating-to-fixed rate swaps can be employed to create synthetic fixed-rate debt. This structure provides a low-cost alternative to issuing conventional fixed-rate debt by allowing the issuer to access the short-term debt market. The issuer issues variable-rate debt and hedges its floating-rate exposure with floating-to-fixed-rate swaps. Under traditional floating-to-fixed swaps the variable-rate index received by the issuer from the counterparty matches or closely approximates the variable rate on the debt, leaving the issuer with a fixed-rate exposure for the term of the swap and, in most cases, term of the bonds.

Many project sponsors employ swap strategies in an effort to achieve more cost-effective debt financing. However, the swap strategies in some recent long-term concession financings are seeing the swap counterparty act as a debt provider.

For example, it is possible to use an interest-rate swap to produce the same economic effect as bullet maturities or CABs. The swap counterparty pays a floating rate (such as LIBOR) and receives a payment stream (from the project company) that allows for some of the interest payments due to the swap counterparty to accrete for a period. The payment from the project company to the swap counterparty will typically reflect a credit and loan margin that may be fixed or follow a step-up provision.

Accreting swaps have the same effect on project DSCRs as CABs. The DSCRs are overstated in the early part of the debt and swap accretion based on the portion of the project payment that is deferred. Later in the concession, as the project begins to pay down the maximum accreted debt or swap balance, the net debt service obligations will be higher than would otherwise be the case under amortizing or even bullet debt maturity profiles.

This sculpting, or “tailoring,” of the cash flow stream—by using CABs or accreting swaps—in a long-term lease concession is intended to benefit sponsors in two ways. First, it allows lower debt service payments in the early years to better match ramp-up in revenue based on anticipated volume and tariff increases. In this way, more debt can be issued to acquire a long-term concession or infrastructure asset than would otherwise be the case if a traditional amortizing or even bullet maturity debt profile were utilized. Second, the lower net debt service and swap payments during the early part of the concession (as projected revenues grow) allow sponsors to maintain healthy equity distributions

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and increase cash yields more than what could otherwise be achieved under a traditional amortizing or bullet debt profile.

A capital structure that includes both debt and accreting swaps will require a review of the relevant swap documentation and intercreditor agreement. Since the swap counterparty is allowing a portion of the project company's interest payable under its swap arrangement to accrue and increase net debt (as accretion occurs), it is acting as debt provider, and these swap obligations will likely be considered on parity with other debt obligations. It is important to determine if there are cross-default provisions on events, such as early swap termination, which could lead to acceleration of the project debt obligations.

Our swap analysis also seeks to determine the extent to which the transaction is swap-independent. For example, if the swap were to terminate, the issuer would pay or receive a payment—to or from, respectively—the swap counterparty. If the issuer did not receive a payment due to a counterparty default, the issuer might not be able to replace its swap position at similar rates or terms, and therefore might not be able to perform at previously expected (rated) coverage levels without rate increases or possible rating implications. As a result, we will examine, within a swap transaction, the level and minimum credit quality of collateral posting, along with replacement requirements should minimum credit rating levels be violated by swap counterparties.

These credit issues are central to our rating analysis, as monoline bond insurance policies can guarantee swap payments due from (but not due to) the issuer. Because a highly rated financial guaranty policy obligor is expected to maintain payments to the swap counterparty (should a wrapped project not be able to meet its swap and debt obligations due to poor performance), the project company should not be in default on its side of the swap. Swap renewal, if applicable, and swap counterparty credit quality remain analytical issues, however, even for monoline wrapped transactions.

In general, Standard & Poor's has identified six key risks associated with swap contracts, which we analyze in any review of a swapped bond transaction: counterparty risk, rollover risk, economic viability (basis/tax risk), amortization risk, termination risk, and collateral-posting risk. Further information on each of these risks can be found in our article "Public Finance Criteria: Municipal Swaps," published May 31, 2006, on RatingsDirect.

### ***Competitive Position Remains Key***

Standard & Poor's will apply the analytical framework to an infrastructure asset financing consistent with the contractual structure providing the security to lenders. However, many of the building blocks of the analysis are mined from a common approach to examining the fundamental business proposition supporting existing and future financial performance, including the market dynamics and competitive landscape. Projections and stress tests are important tools in the analysis but have inherent limitations; structures dependent on aggressive long-term growth when unforeseen events are more prevalent will be likely viewed as weaker transactions from a credit perspective. Covenant protections and financial structuring that provide cushion against deviations in forecasted results can add to credit quality, but are not substitutes for a compelling competitive position and proper asset management techniques providing a foundation for future growth.

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