

[Airport Bond Documents](#)

(February 27, 2016 by Dafang Wu; [PDF Version](#))

This is an introductory article discussing key definitions and conditions in airport bond documents.

When U.S. airports borrow money from the open market, they set out terms and conditions in bond documents. Bond documents can be unilateral, such as ordinances or resolutions, or bilateral, such as trust agreements. Those documents are complicated legal documents, typically more than 100 pages long, and are different from airport to airport. However, in a simplified view, those documents serve to ensure bond investors that they can get their money back, with interest.

Key issues, in my mind, are:

- No collateral or tax power
- Pledged revenues: sources of revenues to repay debt service
- Application of revenues: the priority of paying obligations
- Rate covenant: where airports agree to try their best to earn money
- Additional bond test: where airports agree not to issue too many bonds to dilute current bonds

[No Collateral or Tax Power](#)

U.S. airports cannot pledge any collateral of fixed assets as sources of debt service payment. As a condition of accepting federal grants, which almost all airports have accepted, U.S. airports are required to accept [grant assurances](#), a set of terms and conditions laid out by the Federal Aviation Administration (the FAA). Those conditions include, among other things, the need to hold good title to the landing area, and that the sponsor keep the airport available for public use. Therefore, the only source that airports can use to pay debt service are the revenues, or a portion of the revenues, generated from airport operations.

[Pledged Revenues](#)

Unlike in a casual conversation, important words used in bond documents are carefully defined and written with the first letter capitalized, such as Revenues. To pay debt service, U.S. airports pledge certain revenues as the payment source, which generally includes operating revenues defined under generally accepted accounting principles (GAAP), plus interest earnings and certain nonoperating revenues. Those revenues are typically defined as Revenues, or Pledged Revenues, or Airport General Revenues, or whatever term the bond counsel had in mind when the document was drafted.

In this ALB 1997 Master Resolution, the pledge is shown in article 2.01: "The Bonds, including principal thereof and interest and premium, if any, thereon, shall be payable paripassu from, and be equally and ratably **secured by a pledge of and lien upon**, and the Authority does hereby pledge, **the Net Revenues of the Authority.**" As shown in this sentence, to determine which revenues will be used for debt service, we must further read the definition of "Net Revenues" and "Authority."

Net Revenues are defined as "(i) for any period or year which has concluded at the time a calculation was made, the aggregate of the Revenues minus for such past period or year the aggregate of the Operation and Maintenance Expenses; and (ii) for any future period or year the aggregate of the Revenues that is estimated for such future period or year, minus for such future period or year the aggregate of the estimated Operation and Maintenance Expenses in such future year or period." Nowadays, even lawyers won't talk like that anymore. They would simply define it as "Revenues minus the Operation and Maintenance Expenses."

There are generally three definitions that we cannot avoid reading in any bond document: revenues, expenses, and debt service. In this ALB document, the corresponding definitions are Revenues, Operation and Maintenance Expenses, and Debt Service, each having a desire to be a multi-page definition. The definition of Revenues is very much to my liking, and includes, among other things:

- All operating revenues plus interest earnings.
- Deposit from the prior year in the Development Fund that is transferred to this year. Sometimes this is named as rolling coverage, coverage account, or Transfer.
- Passenger facility charge (PFC) revenues, if specifically included by a resolution.

The capability to add deposits from the prior year and PFC revenues gives the Authority a certain flexibility to meet bond requirements when needed. The bond investors cannot demand that the Authority use other financial sources for debt service payments, such as cash balance in certain funds or revenues from Special Facilities, although the Authority may elect to do so at its own discretion.

Application of Revenues

The bond investors are also concerned about the priority of payments, or who gets paid first. This is referred to as "application of revenues" or "flow of funds." We can find in Article 4.01 of the ALB 1997 Master Resolution, "First, there shall be deposited each month into the Operation and Maintenance Fund and the Accounts therein ..."

Paying operating expenses is typically the first priority in the flow of funds. Even if an airport doesn't have enough money for both operating expenses and debt service payments, it can still pay operating expenses to ensure continuous operations, which eventually benefits the bond investors. DFW is probably the only airport that stipulates that debt service must be paid before operating expenses, which is questionable in the context of grant assurance.

Sometimes the first priority also includes reserves for operation and maintenance, which is not a practice I would advocate. If an airport does not have adequate revenues, one would imagine that the airport would want to pay debt service before replenishing an internal fund.

The second priority at ALB reads, "Second, there shall be deposited each month into the Bond Fund and the Accounts therein the amount required by this Resolution to be used for the purposes specified herein." This language isn't ideal. Because the term "Debt Service" has been defined, the second priority can be written as paying Debt Service on the Bonds, which eliminates unnecessary ambiguity.

The third priority reads, "Third, there shall be applied the amount, if any, required to be deposited in the Bond Reserve Fund," which is a quite common practice. Deposit to the senior lien reserve fund ranks higher than payment of subordinate obligation.

The fourth and fifth steps in the flow of funds are to pay subordinate obligation debt service and related reserve requirements. After the fifth step, U.S. airports specify deposits to some funds and accounts, which we typically call "funds requirements." Those funds could include:

- Operation and maintenance reserve fund, which is used to fund operating expenses and debt service when necessary. Of the 30 large-hub airports, 10 airports maintain a balance equaling 3 months of operating expenses; 8 airports maintain 2 months; 1 airport maintains 6 months; 2 airports are flexible within 2-6 months; 5 airports have no such reserves; and I can't find information about the other 4 airports.

- Renewal and Replacement Fund/Major Maintenance Fund/Maintenance Reserve Fund, etc., for non-recurring maintenance costs. Sometimes the bond documents may specify the annual deposit amount, while in other cases the bond documents specify the balance to maintain.
- Improvements Account/Improvement and Extension Fund/Capital Fund/Capital Budget Fund, etc., for capital projects.
- Other miscellaneous uses, such as payment of general obligation bonds debt service, payment in lieu of taxes, or self-insurance.
- Discretionary fund, which an airport can use for any legal purposes. The amount deposited into the last priority, also known as the bottom bucket, may be further allocated according to the airline agreement.

Rate Covenant

To ensure the bond investors that they can get their money back over a long period, the airport typically covenants to generate adequate revenues to:

- Reach 125% (or other ratios higher than 100%) of the required debt service payment, referred to as the coverage test
- Pay all obligations specified in the flow of funds, referred to as the flow test

The two covenants (some airports have only one) are collectively called "rate covenant." Section 5.02 of the ALB 1997 Master Resolution reads, "**The rates, rentals, fees and charges** imposed, prescribed and collected shall be such as **will produce Revenues at least sufficient (i) to pay the principal of and interest** and premium on the Bonds as and when the same become due (whether at maturity or upon required redemption prior to maturity or otherwise); (ii) to pay as and when the same become due all **Operation and Maintenance Expenses**, (iii) to pay as and when the same become due any and **all other claims, charges** or obligations payable from Revenues, and (iv) to **carry out all provisions and covenants** of this Resolution. Without limiting the provisions of the next preceding sentence of this section, at all times and in any and all events such rates, rentals, fees and charges shall be imposed, prescribed, adjusted, enforced and collected which will yield Net Revenues in an amount **at least equal to one hundred twenty-five percent (125 %) of Debt Service on all Bonds Outstanding.**"

As discussed in [this article](#), an airport may negotiate with the airlines for a residual ratemaking methodology, where the airlines collectively agree to pay adequate revenues, together with other revenues, to meet the rate covenant requirements. Alternatively, an airport may set rates under the FAA's rates and charges policy, which has higher risks but also higher rewards.

Although rate covenants look alike for all airports, the actual calculation differs significantly and involves two key issues: generating coverage (25%, for example), and debt service offset vs. revenue approach.

Generating Coverage

To protect their investment, the bond investors demand that the bond issuers generate more revenues than debt service payment, typically 125% of debt service payment. The amount equaling the extra 25% is referred to as the coverage amount. Under a residual approach, the airlines agree to pay only the minimum amount necessary to meet the rate covenant requirements. Therefore, the airports developed a rolling coverage approach to minimize the airline rates they have to collect:

- Rolling coverage: the airport collects the coverage amount once and transfers this amount from one year to the next. To make sure this coverage amount is recognized in the calculation of debt service coverage, an airport may:
 - Specify that the transfer amount is part of Revenues. At ALB, Revenues may include "that amount on deposit from a prior Fiscal Year in the Development Fund which is transferred or credited by the Authority to the Revenue Fund," although the Authority has never done that.
 - Specify that the transfer amount can be added to Net Revenues when calculating debt service coverage. In that case, the coverage test may read, "Net Revenues plus any Transfer will be equal to at least 125% of ... Debt Service ..."
 - Use the coverage as an airline credit in a residual ratemaking environment. In that case, the coverage amount is a surrogate of the airline rates and charges, i.e., if the coverage amount is not available, the airline rates and charges would be increased to make up the difference.
- Hard coverage: the airport generates coverage annually from its operations

Debt Service Offset vs. Revenue Approach

When funds other than operating revenues are used to pay debt service, those funds may be expressed as a reduction of debt service (the Offset Approach), or an addition to revenues (the Revenue Approach). As shown in the table below, use of an Offset Approach can yield higher debt service coverage than use of a Revenue Approach.

Offset Approach vs. Revenue Approach			
	<u>Base Case</u>	<u>New PFC Bonds</u>	
		<u>Offset</u>	<u>Revenues</u>
Net Revenues	100	100	100
PFC Revenues for Debt Service	-	-	15
Adjusted Net Revenues	100	100	115
Senior Lien Debt Service	60	60	60
PFC Bonds Debt Service	-	15	15
PFC Revenues for Debt Service	-	(15)	-
Senior Lien Debt Service	60	60	75
Senior Lien Coverage	1.67	1.67	1.53

Most bond documents allow the Revenue Approach because adding another source of payments to the definition of Revenues would strengthen the pledge. Of the bond documents allowing the Offset Approach:

- Some documents implicitly allow the Offset Approach, such as "if all or a portion of the principal or Amortization Requirement of or interest on bonds is payable from funds set aside or deposited for such purpose ... such principal, Amortization Requirement or interest shall not be included in computing Principal and Interest Requirements."
- Some documents call out the revenues that can be used to offset debt service, such as in the ALB 1997 Master Resolution, "Debt Service shall not include ... amounts credited to any Interest Account

for such Series, including PFC Revenues irrevocably deposited or to be irrevocably deposited in a segregated subaccount therein."

- Other documents may extend the Offset Approach to cover PFC revenues, CFC revenues, FAA grants, and other available funds.
- Some documents do not allow the Offset Approach.

Rating Agencies Coverage Calculation

Bond rating agencies are given an impossible task to compare airports. To standardize the calculation of debt service coverage, rating agencies calculate a cash flow coverage, or total coverage, by using the Revenue Approach, regardless of how the bond documents require. In addition, they exclude rolling coverage from the prior year, resulting in much lower debt service coverage than that computed under the bond documents.

Additional Bond Test

To prevent a bond issuer from issuing too much debt, the bond documents set forth the conditions when issuing additional bonds, referred to as the additional bond test. The additional bond test may include one or both of the tests below:

- Historical test, where airport management needs to demonstrate that historical revenues are adequate to pay debt service on outstanding bonds and the proposed bonds
- Prospective test, where airport management needs to demonstrate that projected revenues for a future projection period would be adequate

Because the prospective test is based on a set of assumptions that may be subject to uncertainties, airport management typically hires bond feasibility consultants to prepare an additional bond test certificate. The feasibility consultants will prepare a bond feasibility study for marketing purposes, to be included in the official statement, and adjust the financial forecasts to provide an additional test certificate, to be included in the closing transcript.

The ALB 1997 Master Resolution reads, "Either

- (i) the Designated Financial Officer shall have certified that, based on the latest available audited financial statements of the Authority, the Net Revenues for that Fiscal Year as derived from said audited financial statements shall have equaled not less than one hundred twenty-five percent (125%) of Maximum Annual Debt Service on all Bonds Outstanding and the Bonds of the Series then proposed to be issued;
- or (ii) an Airport Consultant shall have certified that estimated Net Revenues to be derived in each of the three full Fiscal Years following the Fiscal Year in which (a) the Authority estimates a substantial portion of the project or projects, the Project Costs of which are to be financed by the issuance of such Additional Bonds, will be placed in continuous service or in commercial operation or amounts on deposit in the Construction Interest Account with respect to such project or projects are fully expended, whichever is later, or (b) Bonds which are not issued to fund Project Costs or Refunding Bonds are issued, shall equal not less than the greater of one hundred twenty-five percent (125%) of the Debt Service on all Bonds to be Outstanding upon the issuance of such Additional Bonds and including such Additional Bonds and one hundred percent (100%) of all claims, charges or obligations to be payable from Net Revenues."

Other Sections

The bond documents also include many other sections that protect the bond investors' interests, such as:

- The issuer cannot permit construction of properties on-airport using obligations other than bonds. This prevents an airport from spending billions on a new terminal, announcing default, and building a small terminal next door to continue operations.
- The issuer cannot dispose of assets without meeting certain criteria.
- The issuer may issue special facility obligations under certain criteria.
- The issuer must keep the airport in good working condition and meet other similar covenants.
- Other sections, such as amendment requirement, or default.

Recent Developments

Because bond documents require calculation of certain financial ratios, they rely on GAAP for recognition of revenues and expenses. When GASB 45 and GASB 68 changed the recognition of pension expenses and other postemployment benefits, we must determine whether those changes affect the operating expenses defined in the bond document as well. Ultimately, the bond counsel will decide how a definition in the bond documents should be interpreted.