

# Cities of Dallas and Fort Worth, Texas

## Dallas/Fort Worth International Airport

### Joint Revenue Improvement Bonds

## Executive Summary

Kroll Bond Rating Agency (KBRA) has affirmed the long-term rating of **AA-** with a **Stable Outlook** on the Dallas/Fort Worth International Airport (DFW) Joint Revenue Improvement Bonds. This rating applies to all of the Airport's outstanding Joint Revenue Improvement bonds. As of June 30, 2017, DFW had approximately \$6.3 billion in Joint Revenue Bonds outstanding.

This affirmation is based on KBRA's [U.S. General Airport Revenue Bond Methodology](#). KBRA's rating evaluation of the long-term credit quality of general airport revenue bonds focuses on six key rating determinants:

- Management
- Economics/Demographics of Service Area
- Airport Utilization
- Airport Debt/Capital Needs
- Airport Finances
- Legal Mechanics and Security Provisions

In the process of affirming the rating, KBRA reviewed multiple sources of information and spoke with airport management. Further information may be found in the [Dallas/Fort Worth International Airport Joint Revenue Improvement Bonds, Series 2014C](#) rating report.

## Security

The Bonds are payable solely from and secured by an irrevocable first lien on and pledge of Pledged Revenues and Pledged Funds. Pledged Revenues include Gross Revenues, the revenues received by the Airport from rentals, fees and charges collected from the airlines, and from other non-airline sources, including capital transfers and special revenues. Pledged Funds include amounts on deposit in the Debt Service Fund and Debt Service Reserve Fund.

### Key Rating Strengths

- Strong management team has demonstrated an ability to effectively deal with the complexities of running a major U.S. airport.
- Growing population and economic base support origin and destination (O&D) traffic.
- Geographic location in central U.S. and operational advantages of facilities, along with ample capacity abets connecting activity.
- Significant non-airline activity diversifies revenues, and provides source of discretionary capital funding.

## Key Rating Concerns

- High debt levels on per enplanement basis.
- High concentration of American Airlines as primary DFW carrier.
- Connecting traffic is a significant component of overall enplanement activity.

## Rating Summary

KBRA believes that DFW exhibits many favorable characteristics that have fostered its status as the fourth busiest airport in the U.S. in terms of enplanements. Its vast size at 17,200 acres (26.9 square miles) provides the needed space for extensive air-related facilities, and also substantial non-aeronautical related commercial development. DFW has seven runways, capable of four simultaneous landings, and has 24-hour operation, without slot constraints, or curfews. The Airport has five terminals, with 164 gates. DFW's location in the south-central portion of the U.S., along east-west routes, forms a natural hub. Flight frequency and destinations served is further enhanced by a growing population and diversifying economic base. The terminal configuration allows for the expeditious movement of passengers between connecting flights, and is assisted by an efficient airport transit system (Skylink).

KBRA views the siting of the Airport in 1968, followed by its opening in 1974, as a reflection of the foresight of representatives of the cities of Dallas and Fort Worth. Land acquisition of this magnitude would have been impossible several years later. KBRA believes the Cities also showed prudence in creating a management structure through the 1968 Contract and Agreement that provides for professional airport management, with virtually no outside interference. KBRA views DFW's management structure and policies as providing a strong framework for managing its operations. Management has maintained favorable relationships with airline and non-airline entities, including negotiation of the current Lease and Use Agreement, and gaining airline approval for the massive Terminal Renewal and Improvement Program (TRIP), now essentially complete.

KBRA views the DFW regional economy as strong, based on relatively low unemployment rates, a substantial corporate presence that is supportive of travel, above average wealth levels, and a growing population. The airport's service area population in 2016 is estimated at 7.1 million (fourth largest U.S. metropolitan area), a 38% increase since 2000. Housing costs are highly affordable and have rebounded to more than 100% of the pre-fiscal crisis peak. The closest competing large hub airport to DFW is Houston-Bush Intercontinental, approximately 245 miles away. Dallas Love Field (DAL) is the only other airport in the MSA that provides scheduled passenger airline service. DAL operated under restrictions known as the Wright Amendment since 1980, which limited airplane size and destination to nearby states. The expiration of the Wright Amendment, in October 2014, nominally increased competition between the two airports. However, the impact on DFW passenger activity has been modest as DAL is capped at 20 gates. Despite expanded activity at DAL, a competitive airfare environment has fostered increased passenger activity at DFW and DAL.

DFW enplanement trends since 2000 have been uneven, with sharp drops recorded during the early 2000s in the aftermath of 9/11, and the more recent financial crisis. Connecting traffic was also affected by Delta's de-hubbing in 2005. Since 2010, there has been a rebound in passenger activity led by increased international enplanements, and the introduction of service by low cost carriers. Growth has exceeded the U.S. as a whole, and available seats have likewise increased. DFW is characterized by significant American Airlines concentration that now approximates 85% of enplanements. KBRA's concerns related to this concentration are mitigated to a great extent by how airlines have historically treated their fortress hubs, by hunkering down with respect to bankruptcy. Since American's emergence from bankruptcy KBRA has observed the same. The airline's corporate headquarters will remain in Fort Worth, with a new complex

under construction, which underscores a commitment to the region. In addition, American's yields at DFW exceed the system-wide average by more than 15%.

DFW has successfully added a number of major international routes in recent years. International service is provided between the Airport and destinations in Asia, Australia, Canada, the Caribbean, Central America, Europe, Mexico, the Middle East, and South America. The airport currently offers nonstop international service to 56 destinations.

TRIP, the Airport's current capital program is now essentially complete. Approximately 99.2% of funds are committed, with 90.8% completion. Total spent and committed is \$1.83 billion, which is \$51.9 million (2.7%) under budget. Yet to be resolved is the future of Terminal C, which had been originally included in TRIP. Options include a rehabilitation project or total replacement of the Terminal. DFW is currently developing a 10-year capital plan for maintenance, restoration and enhancement of its significant infrastructure, which is mostly in excess of 43 years old. Total cost is estimated at \$3.4 billion, including \$2 billion of bond financing. With the exception of a \$320 million issue later this year, no other borrowing has been scheduled. Bond proceeds will fund taxiway and runway reconstruction, commercial development, and various other infrastructure projects. Debt service ascends to approximately \$505 million in 2020, and thereafter is reduced. This structure allows for future bond issuance. Since fiscal year 2011, DFW has used all PFC revenues as an offset to debt service requirements, which has moderated airline costs. Officials expect this practice to continue.

While debt metrics are high on a per enplanement basis, KBRA believes there are several mitigating factors. Non-airline revenues have grown in recent years, with further growth anticipated due to TRIP-related concession improvements. A portion of non-airline net revenues is shared with the airlines when an upper threshold is exceeded.

Growth in expenditures has been effectively contained, and with TRIP-related improvements, KBRA expects utility and maintenance savings to be realized going forward. KBRA believes that management is cognizant of the need to maintain ample liquidity to offset high debt levels. Days' cash on hand was a sizable 714 days as of September 30, 2016.

Based on review of the six KBRA Rating Determinants included in the KBRA Methodology for rating U.S. General Airport Revenue Bonds, KBRA has assigned a rating to each Determinant, which is summarized as follows:

- Management: Favorable
- Economics/Demographics of the Service Area: AA
- Airport Utilization: A+
- Airport Debt/Capital Needs: A
- Airport Finances: AA-
- Legal Mechanics and Security Provisions: AA

## Outlook: Stable

The Stable outlook reflects KBRA's expectation that passenger traffic will grow modestly, increases in borrowing remain manageable, and non-airline revenues will continue to support operations at levels achieved in recent years. KBRA also expects DFW's critical importance in American Airline's hubbing network to remain, and debt service coverage ratios to be sustained at existing levels.

In KBRA's view, the following factors may contribute to a rating upgrade:

- Ongoing population growth and strong local economic performance that results in O&D enplanement increases, and elevated rental car, parking, and concession revenues, as debt is amortized.
- Consolidation of the numerous domestic American Airlines hubs that yields augmented connecting activity, and acts to further reinforce DFW's status as a fortress hub.
- Further development of commercially available land as an indication of its true revenue potential.

In KBRA's view, the following factors may contribute to a downgrade of the rating:

- Reduced importance of DFW as an American Airlines hub.
- Unanticipated large capital costs that sharply increase debt levels.

## Bankruptcy Assessment

KBRA has consulted outside counsel on bankruptcy matters and the following represents our understanding of the material bankruptcy issues relevant to DFW. DFW is owned jointly by the City of Dallas and the City of Fort Worth (collectively, the "Cities"), which jointly have appointed a board to run the Airport, so it is not a separate, stand-alone municipal body. Accordingly, because DFW is not a separate municipality incorporated under Texas state law, KBRA's understanding is that it is not eligible to file a municipal bankruptcy petition under Chapter 9. Each of the Cities, however, is a "municipality" as defined under the Bankruptcy Code. In addition, Texas state law specifically authorizes any municipality in the state that has the power to incur indebtedness through the action of the municipality's governing body to file a Chapter 9 petition. Thus, both the Cities have the authority under Texas state law to incur indebtedness and, hence, both are specifically authorized under Texas state law to file a Chapter 9 petition, subject of course to the further threshold requirements in Federal law (the Bankruptcy Code) for commencement of a Chapter 9 case.

### A. Pledged Revenues as Special Revenues under the Bankruptcy Code

Because the Pledged Revenues are generated by DFW, KBRA understands that the Pledged Revenues will qualify as "special revenues" as that term is defined in the Bankruptcy Code. Thus, to KBRA's understanding, even if either or both of the Cities were to file for protection under Chapter 9, such filing(s) should have little to no effect on the payment of the Bonds during a bankruptcy case, since the Bonds are secured by a pledge of special revenues. That stated, there are several additional issues that arise. In determining necessary operating expenses for the Airport, in a Chapter 9 case the bankruptcy court may not be limited by the provisions governing the flow of funds or that define Operation and Maintenance expenses, in the Master Bond Ordinance or any other Ordinance or bond issuance document. In addition, while there is no case law from which to make a definitive judgment, it is possible that, in the context of confirming a plan of adjustment in a Chapter 9 case where the plan has not received the requisite consent the holders of the Bonds, a bankruptcy court may confirm a plan that adjusts the timing of payments on the Bonds or the interest rate or other terms of the Bonds, provided that (i) the bondholders retain their lien on the special revenues and (ii) the payment stream has a present value equal to the value of the special revenues subject to the lien.

## **B. Possible effect of an airline bankruptcy**

Given that a material portion of the Pledged Revenues are derived from rentals, fees and charges imposed upon the Signatory Airlines pursuant to Use Agreements, the bankruptcy of a Signatory Airline, particularly a second bankruptcy of American Airlines, could have an effect on the ability of the Airport to make debt service. In the event a bankruptcy case is filed with respect to an airline operating at the Airport, the lease or permit governing such airline's use of Airport space would constitute an executory contract or unexpired lease pursuant to the Bankruptcy Code. In Chapter 11 cases, the debtor in possession (or a trustee, if one is appointed) has 120 days from the date of filing of the bankruptcy petition to decide whether to keep ("assume") or jettison ("reject") a nonresidential lease, such as a Use Agreement. The 120-day period may be extended by court order for an additional 90 days for cause. Any additional extensions are prohibited unless the debtor airline (or a trustee acting on behalf of the airline) obtains the Airport's consent and a court order.

Under the Bankruptcy Code, if a debtor or its trustee elects to reject an executory contract or unexpired lease, the relevant real property must be surrendered to the lessor. As a result, the rejection of an unexpired lease by an airline debtor may result in the Airport unexpectedly regaining control of the applicable facilities (including gates and boarding areas). The Airport could then lease or permit such facilities to other airlines. The Airport's ability to lease such facilities to other airlines, of course, may depend on the state of the airline industry in general, on the nature and extent of the increased capacity at the Airport resulting from the departure of the debtor airline, and on the need for such facilities.

Under the Bankruptcy Code, any rejection of a lease or other agreement could also result in a claim by the Airport for rejection damages against the debtor airline. Such claim would be in addition to all pre-bankruptcy amounts owed by the debtor airline. With respect to leases, a rejection damages claim for the future rent due under a lease is capped under the Bankruptcy Code at the greater of one year, or 15%, not to exceed three years, of the remaining term of the lease. Rejection damages claims are generally treated as a general unsecured claim; however, the amount ultimately received in the event of a rejection of a Use Agreement or other airline agreement could be considerably less than the maximum amounts allowed under the Bankruptcy Code. Nonetheless, the Airport may have rights against any faithful performance bond or letter of credit required of an airline to secure its obligations under the Use Agreements and/or the right to set off against credits owed to the airline under other relevant agreements.

Alternatively, under the Bankruptcy Code an airline debtor can "assume" its executory contracts and unexpired leases. The Bankruptcy Code further permits an airline debtor to assume and assign its executory contracts and leases to a third party, subject to certain conditions, even if the relevant agreement prohibits assignment. If the bankruptcy trustee or the airline assumes its executory contracts or unexpired leases as part of reorganization, the airline debtor must "cure" or provide adequate assurance that the airline debtor (or its assignee) will promptly cure prepetition defaults, including arrearages in amounts owed. Even if all such amounts owed are eventually paid, the Airport could experience delays of many months or more in collecting them.

## **Key Rating Determinants**

### **Rating Determinant 1: Governance and Management Structure and Policies**

KBRA continues to view DFW's management team as favorable, based on the airport's firm grasp of capital planning, history of financial stability, and demonstrated relationships with airline and non-airline entities. The Airport's forward thinking formalized policies and procedures employ best practices, and along with state of the art operating and training facilities, provide essential tools for operating a major airport. DFW's Strategic Plan 2016-20 focuses on the customer experience, and contains guiding principles of business

performance, employee engagement, operational excellence and community engagement. The management team has significant industry experience.

DFW is governed by a semi-autonomous Board of Directors, comprised of 12 members. Seven are appointed by the city council of Dallas, while Fort Worth city council appoints four. The 12th member is non-voting, and represents one of the four other cities (Coppell, Euless, Grapevine and Irving) in which the Airport is physically located, on an annual rotating basis. The Board appoints the Airport's Chief Executive Officer who is responsible for day-to-day operations of the Airport. There are currently six Executive Vice Presidents, with responsibility for finances, operations, administration and diversity, and revenue management, and 21 Vice Presidents. The Airport currently has approximately 1,800 full-time employees.

The Chief Executive Officer, Sean P. Donohue, joined DFW in October 2013, following a 28-year career in the airline industry. He brings an additional perspective to DFW, having spent the prior three years as Chief Operating Officer of Australia's second largest air carrier, and prior to that served for 25 years in a variety of roles at United Airlines. Christopher A. Poinsette, the Executive Vice President – Chief Financial Officer, has served in this role since September 2003, and earlier was CFO at Dallas Area Rapid Transit (DART). He has had significant involvement with Airports Council International-North America (ACI-NA), and has chaired its finance committee. Michael Phemister, Vice President-Treasury Management has been with DFW since 1999, and is responsible for debt management. Prior to working at DFW, he served for 11 years as CFO for the City of Rockwall, Texas.

DFW's long-range planning and decision-making stem from its Leadership System. Strategic, financial, risk management, capital planning, and employee compensation practices are addressed here. The elements of the system are: (1) Strategic Planning and Management System (strategic plan, financial plan, airport master plan, capital plan, enterprise risk management, and business unit plans); (2) the Annual Work Plan and Annual Budget; (3) cascading goals to employees; and (4) measurement (scorecards and reporting). The resultant system output is employee compensation and alignment.

The Airport's debt policy, which identifies the range of debt instruments that may be employed, prohibits structuring of debt for a period that exceeds the useful life of the asset being financed. Amortization of debt must be no longer than 35 years, unless approval is obtained from the cities of Dallas and Fort Worth. No balloon or bullet maturities are allowed, with the exception of interim financing. Extensions of maturities are expected to be avoided unless there is a need to restructure outstanding debt, or provide financial relief to airlines. According to the Airport's debt policy, DFW will not have more than 20% of total outstanding debt in variable rate debt at any one time, excluding interim financing. At present, there is no variable debt or derivatives outstanding. Subordinate lien obligations must not exceed 10% of outstanding debt.

DFW has devoted significant attention to enterprise risk management (ERM), and has established a structure that identifies risks that may affect business processes and strategic objectives, and created an enterprise-wide program to manage these risks. Management has categorized these risks in the following categories: (1) financial; (2) human capital; (3) legal and regulatory; (4) operational; (5) reputational; (6) strategic; and (7) technology. A risk council, consisting of representatives from various Airport enterprise functions, and a risk officer are part of the structure. The highest levels of airport administration, including the Chief Executive Officer, and Executive Vice Presidents have responsibility for support, implementation and application of the ERM program.

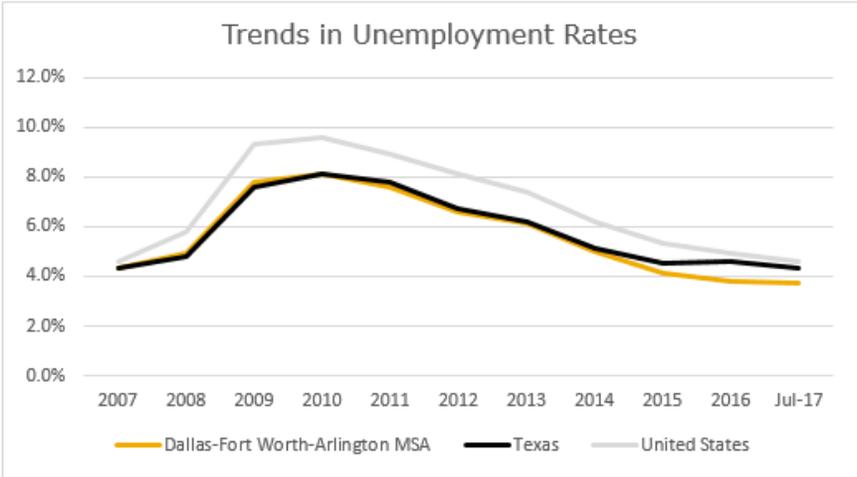
Airport management has established facilities that coordinate operational response capabilities, and aircraft rescue firefighting. The Airport Operations Center (AOC) centralizes multiple call and dispatch centers to effectively respond to a number of emergency incidents, including but not limited to hostage situations, major vehicle accidents, or severe weather events.

Based on the foregoing, KBRA views the airport's governance and management structure and policies as Favorable.

## **Rating Determinant 2: Economics/Demographics of the Service Area**

DFW's primary service area is the Dallas-Fort Worth-Arlington Metropolitan Statistical Area (MSA), which includes 13 counties, encompassing 9,300 square miles. Dallas Love Field (DAL) is the only other airport in the MSA that provides scheduled passenger airline service, albeit on a much narrower and limited scale. The estimated population of the MSA, in 2015, was 7.1 million, up from 5.2 million in 2000 and 6.5 million in 2010. MSA population represents more than 25% of the State's population. The region's large population base forms the basis for significant origin and destination traffic at the airport. The Airport's location in the south central region of the US, along with a sizable regional population base, contributes to DFW's high level of connecting enplanement activity. The Airport's central location means that it is within a four-hour flight of almost all major cities in the continental U.S., Canada, and Mexico.

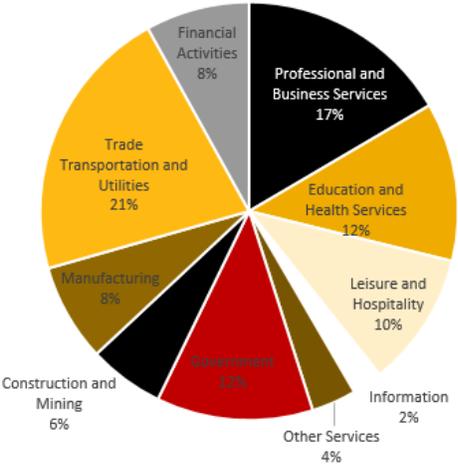
The region's non-agricultural employment base is also a key driver in high levels of O&D enplanement activity at DFW. Mirroring the U.S., services represents the largest sector in the MSA, and has grown at a proportionately faster pace than total non-agricultural employment. Professional and business services, which generate significant air travel, are a larger employment share component than the U.S. as a whole. The unemployment rate reached a peak of 8.1% in 2010. The preliminary July 2017 MSA unemployment rate was 3.7%, compared to the state and national unemployment rates of 4.3% and 4.6%, respectively.



Source: U.S. Bureau of Labor Statistics

The metropolitan area has a widely diversified business environment. Among the largest private sector employers are 22 Fortune 500 companies, including American Airlines Group, Toyota, and AT&T. The scope and frequency of airline service between DFW Airport and all regions of the nation and the world are reasons for many companies to locate facilities in the MSA.

**Diversity of Employment – Dallas-Fort Worth-Arlington MSA  
Calendar Year 2016**

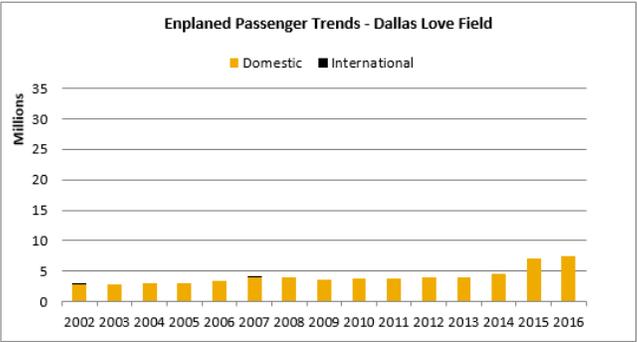
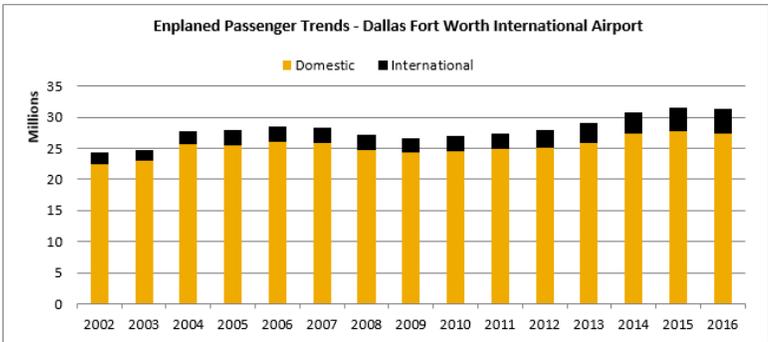


Source: U.S. Bureau of Labor Statistics

Dallas and Fort Worth rank relatively low in housing costs, and high in affordability. The metropolitan area shows a much greater degree of recovery than the nation as a whole. As of June 2017, area-wide home prices had recovered to 140.8% of their pre-recession peak, according to the S&P/Case Shiller 20 City Home Price index, while the national recovery over the same period was 103.5%. The better performance in housing is attributable, in part, to the fact that home prices in the MSA did not increase as much as those in the nation during the pre-recession residential housing boom. The S&P/Case-Shiller Home Price Index for Dallas shows that home prices in June 2007 were 26% higher than in June 2000, whereas home prices in the nation were 77% higher. The relatively strong rebound in housing prices contributes to a sense of wealth that may result in increased expenditures for air travel. Per capita personal income is 108.7% and 106.0% of the State of Texas and the U.S., respectively.

**Geographically Competing Facilities**

There are no airports of similar size nearby. Austin and Oklahoma City, which are medium and small hubs, respectively, are located 195 and 208 miles away. Houston, a large hub, is 245 miles away. Dallas Love Field (DAL) is the only other airport in the MSA that provides scheduled passenger airline service. Southwest Airlines accounted for approximately 91.0% of total passengers at DAL in 2015. Love Field had operated under restrictions known as the Wright Amendment since 1980, which limited airplane size and destination to nearby states. In 2006, an agreement was reached on repeal of the Wright Amendment, effective in October 2014. While resulting competition between the two airports has increased, the magnitude of change has been immaterial in KBRA’s opinion. Love Field is capped at 20 gates, and no international flights are permitted. Southwest has added more than 40 new flight destinations from DAL since October 2014 but may have to eventually drop flights to existing closer-in destinations. In airport management’s opinion, the potential loss of O&D traffic at DFW could be offset with connecting traffic. In addition, growth of Envoy Air (formerly American Eagle), Spirit Airlines, and/or low cost carriers at DFW could offset the loss of O&D traffic. In calendar year 2016, overall enplanement activity increased by an estimated 7.3% at DAL while DFW experienced a minimal decline of 1.0%. KBRA will continue to monitor trends in passenger activity at DAL; however, KBRA believes that DFW’s strength as a connecting hub coupled with its international activity and significant capacity are substantial strengths.



Source: Federal Aviation Administration (FAA)

Based on the foregoing, KBRA views the economics/demographics of DFW’s service area as consistent with a AA Rating Determinant rating. The service area’s vibrant, diverse, and growing business environment, stable housing market, rising wealth levels, and favorable demographic trends support continued growth in enplanement activity and future demand for service.

**Rating Determinant 3: Airport Utilization**

DFW enjoys many strategic advantages, which in KBRA’s opinion, are likely to sustain its prominence among world airports. It is the highest capacity airport in the world, with the ability to grow. Its infrastructure includes five terminals, 164 gates, and seven runways. It is the only airport in the world capable of four simultaneous landings in good visibility, and onto three runways in virtually all weather conditions. Twenty four-hour operation is permitted, and there are no slot constraints and no curfews. Skylink, a dedicated transit system connects the airside areas of all terminals. An extension of the Dallas Area Rapid Transit (DART) light rail system also connects DFW with downtown Dallas, and construction is underway on a rail connection to downtown Fort Worth. DFW’s operational advantages of facility and capacity, and its geographical location contribute to its status as a fortress hub. Likewise, the sizable and growing regional population and employment bases support substantial origination and destination traffic. DFW is the seventh largest O&D market in the United States, and excluding connecting passengers, would still rank in the top

20 of U.S. airports in terms of enplaned passengers. In addition, DFW maintains significant cargo activity; as of 2016, the airport was ranked ninth in the U.S. with nearly 1.8 million metric tons of landed cargo weight.

### Enplanement Trends

O&D enplanements have increased overall with the exception of declines in the aftermath of the September 11<sup>th</sup> terrorist attacks, and the 2008-09 financial crisis, which reduced airline seat capacity. Overall connecting activity grew modestly through 2012, with notable growth since. Since 2012, connecting enplanements have grown from 16.6 million to 19.2 million in 2016. As of July 2017, DFW is on pace for a 1.4% increase in enplaned passengers in the current calendar year, which equates to a total of approximately 33.3 million. DFW currently ranks fourth in the U.S. and eleventh in the world in total enplanements. Management projects growth to 34.5 million enplanements by 2020.

Historical Originating and Connecting Enplaned Passengers Dallas/Fort Worth International Airport Fiscal Years Ending September 30th								
Fiscal Year	Enplaned Passengers ('000)			Annual Percent Change			Percent Originating	Percent Connecting
	Originating	Connecting	Total	Originating	Connecting	Total		
2007	12,900	17,000	29,900	2.4%	-3.4%	-1.0%	43.1%	56.9%
2008	13,000	16,100	29,100	0.8%	-5.3%	-2.7%	44.7%	55.3%
2009	11,500	16,400	27,900	-11.5%	1.9%	-4.1%	41.2%	58.8%
2010	11,500	16,700	28,200	0.0%	1.8%	1.1%	40.8%	59.2%
2011	12,100	16,800	28,900	5.2%	0.6%	2.5%	41.9%	58.1%
2012	12,500	16,600	29,100	3.3%	-1.2%	0.7%	43.0%	57.0%
2013	12,800	17,300	30,100	2.4%	4.2%	3.4%	42.5%	57.5%
2014	13,500	17,900	31,400	5.5%	3.5%	4.3%	43.0%	57.0%
2015	13,800	18,700	32,500	2.2%	4.5%	3.5%	42.5%	57.5%
2016	13,600	19,200	32,800	-1.4%	2.7%	0.9%	41.5%	58.5%

Source: Dallas/Fort Worth International Airport

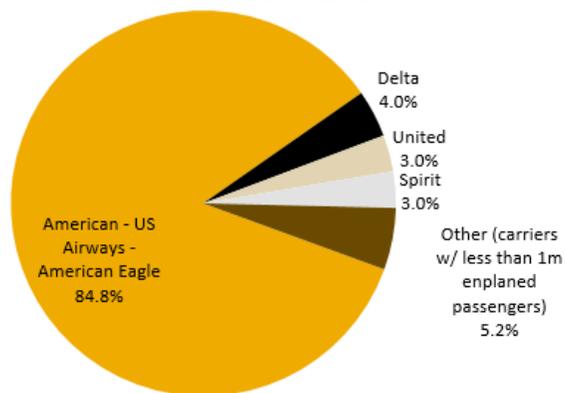
### Strong International Enplanement Growth

DFW has successfully added a number of major international routes in recent years. International service is provided between the Airport and destinations in Asia, Australia, Canada, the Caribbean, Central America, Europe, Mexico, the Middle East, and South America. Total international enplanements have increased 105.0% since CY 2002, and approximately 56.0% since CY 2009. The airport currently offers nonstop international service to 56 destinations. Since KBRA's last review, DFW has added daily international service to Doha, Tokyo, Mexico City, and Vancouver.

### American Airlines Concentration

American Airlines represents significant concentration at DFW. Together with the merged U.S. Airways and Envoy Air (formerly American Eagle), the airline accounts for approximately 85% of the Airport's market share, as of FY 2016. However, KBRA continues to believe that in this particular case, the level of concentration is not a critical risk. American emerged from its November 2011 bankruptcy in December 2013 as a stronger airline, with synergies, mainly in the form of increased revenues due to a more extensive network, and a more diverse fleet, allowing capacity to be better matched on a route basis, and decreased expenses. American is now the largest airline in the world, and American's management has stated the airline will keep its corporate headquarters in Fort Worth, and is constructing a new complex. DFW has served for many years as the busiest connecting hub in American's route system, and continues in this role post-merger.

**Share of Total Enplaned Passengers by Airline**  
Fiscal Year 2016



Source: U.S. Department of Transportation

While the merger creates multiple hubs for the consolidated airline, and KBRA believes that several of these hubs may be vulnerable to service reductions, our expectation is that DFW will not be adversely affected since it plays a unique role in American’s route system. American Airlines has new planes on order, and is adding seat capacity to much of its fleet, which will additionally benefit DFW. In recent years, airlines have switched from a market share strategy to an emphasis on profitability. In this environment, load factors and yield have taken on greater importance. American’s load factors and yields at DFW are well above its system-wide averages, based on data obtained from the U.S. Department of Transportation.

Based on the review of DFW’s facilities, level of service, enplanement and available seat trends, and DFW’s role as an international and cargo gateway, and the value of DFW routes to carriers, KBRA views the airport utilization of DFW as consistent with an A+ Rating Determinant rating.

## Rating Determinant 4: Airport Debt/Capital Needs

### Debt Issuance Approach

DFW has taken a conservative approach to debt management. The Airport’s debt issuance adheres to a written debt management policy. DFW’s debt is in the form of general airport revenue bonds (GARBs), secured by a lien on gross airport revenues. All debt is in the form of fixed rate obligations, and for the most part is amortized over 30 years. There are no swaps currently in effect, nor are there any subordinate liens or special facility debt outstanding. The debt service reserve is fully cash funded. As of September 30, 2016, the Airport had approximately \$6.4 billion in aggregate principal amount of bonds outstanding, and is in the final stage of its TRIP program. Capital planning processes are in place, and the projects undertaken appear justified in that facilities are 40 years old and subject to the need for major systems replacement and obsolescence issues. Airline consensus has been reached despite ongoing scope and cost modifications. The preliminary 10-year Capital Plan totals \$3.4 billion, of which \$2 billion is bond financed. The comprehensive scope of the Plan includes all areas of DFW the airfield, major roads/bridges, rail, and Skylink; parking; IT; terminals; utilities; and commercial development.

### Capital Program Overview

In anticipation of TRIP and to provide airline relief, DFW began restructuring its existing debt in 2009, and has issued approximately \$3.6 billion in refunding bonds. The restructuring yielded \$650 million of debt service savings, and created additional debt incurring capacity in most years. Debt service requirements increase to approximately \$505 million in FY 2020, and thereafter decline and remain in the \$400 million to \$450 million range through 2035. Passenger Facility Charge (PFC) revenues provide significant support, which is expected to continue. DFW’s strong liquidity position and moderate cost per enplanement are also mitigating factors.

### TRIP Program

The Airport’s most significant current capital project is TRIP, which is a total renovation and update of DFW’s three (of five) older terminals, is now essentially complete. Approximately two-thirds of the TRIP budget was applied to terminal electrical, plumbing, heating and cooling, security, fire safety, conveyances, telecommunications, lighting and information technology systems. The bulk of the remaining TRIP budget

was used to upgrade ticket halls, reconfigure TSA security checkpoints, replace certain baggage systems, and re-orient concessions for increased sales activity. Modest improvements to terminal exteriors, entrances and parking structures were also undertaken. The improvements proceeded in phases to avoid disruption of ongoing flight activity.

During FY 2014, DFW incurred higher than expected costs related to TRIP projects, primarily driven by asbestos remediation that was higher than budgeted, and airline scope modifications. As a result, airport management along with airlines approved a budget increase of \$652 million, which included an additional \$100 million to build-out four additional gates in Terminal C. The total TRIP program budget, as a result, increased to \$2.7 billion. However, since that figure was arrived at, a determination was made to suspend the renovation of Terminal C (one of the four terminals) pending a decision of whether to renovate or replace the terminal. The revised TRIP cost is now \$1.9 billion. The future of Terminal C is still to be resolved.

Based on the foregoing, KBRA views the Airport's debt and capital planning as consistent with an A Rating Determinant rating.

### **Rating Determinant 5: Airport Finances**

DFW's financial operations are governed in large part by the Master Bond Ordinance (MBO), which was adopted by Dallas and Fort Worth in September 2010 and took effect in July 2013. The MBO establishes the flow of funds, the rate covenant, and the additional bonds test among its provisions. Operations are also a function of the Airport Lease and Use Agreement, in place through FY 2020, which lays out the financial obligations of both the airport and airlines, and determines the airport's rate setting and cost recovery mechanism. The Use Agreement is characterized as hybrid. It establishes three cost centers (airfield, terminal, and DFW) to account for revenues and expenses, and related rentals, fees, and charges. For the airfield and terminal, the signatory airlines pay landing fees and terminal rentals based on the net cost to provide those services.

The DFW cost center accounts for parking, concessions, the rental car facility, commercial development, ground transportation and employee transportation. After certain transfers and credits are made to the Airfield and Terminal cost centers, all remaining revenues are deposited into the DFW Capital Account, one of three accounts (DFW Capital Account, Joint Capital Account, and Rolling Coverage Account) within the Capital Improvements Fund. In FY 2016, amounts deposited into the DFW Capital Account were budgeted with a lower threshold of \$43.1 million and an upper threshold of \$64.6 million.

Any amount in excess of \$64.6 million will be deposited such that 75% of the excess will be used to offset landing fees either in the current fiscal year or the following fiscal year. At the end of the fiscal year, if the amount deposited into the DFW Capital Account is less than \$43.1 million, then an incremental landing fee will be added in the following fiscal year so that the shortfall is recovered. If the amount of cash unassigned to projects in the DFW Capital Account exceeds \$107.2 million, then 50% of the excess will be used to offset landing fees in the succeeding fiscal year, and 50% will be deposited into the Joint Capital Account. Currently all capital funds are assigned to projects. All dollar amounts are adjusted annually based on the consumer price index (CPI). DFW Capital Account funds can be used at the discretion of the Airport; no majority-in-interest approval is needed. FY 2016 net revenues in the DFW Cost Center were \$138.1 million, or \$73.5 million higher than the upper threshold. This allowed DFW to share \$55.2 million with the airlines to reduce landing fees.

The Joint Capital Account (JCA) is primarily funded from bond proceeds, natural gas royalties, and land sale proceeds. Funds in the JCA require DFW and airline approval before they can be spent. JCA funds are used to fund TRIP and other capital projects, capitalized interest, debt reserves, and annual transfers through 2017 to offset terminal rentals, when it is eliminated.

The Rolling Coverage Account was established as part of the Use Agreement in 2010 to implement rolling coverage. Each year, the entire Coverage Account is rolled into the Operating Revenue and Expense Fund as a source of revenue, and then transferred back into the Coverage Account at the end of the year. If new debt is issued, each cost center must generate the incremental coverage required to fund 25% of the new debt service.

The MBO requires the Airport to set rates at levels sufficient to generate gross revenues equal to 1.25x debt service requirements, after meeting operating expenses. This ratio includes the rolling coverage amount. Prior to FY 2011 when the current Use Agreement was enacted, the coverage ratio was always 1.25x, because the airport was fully residual. Coverage has ranged between 1.49x and 1.53x for each of the past six years. Increases beginning in FY 2011 are due to the transfer of net revenues to the DFW Account under the Use Agreement.

While coverage has been augmented, the Use Agreement limits the airport's ability to further improve the coverage ratio because it must use 75% of DFW Cost Center net revenues in excess of the Upper Threshold to reduce landing fees. With the advent of the new agreement, DFW has committed all PFC revenues, to bond repayment. The Ordinance's other coverage requirement is 1.00x, without rolling coverage, and transfers from Capital Accounts. Over the past six years, coverage has ranged from 1.18x to 1.21x. The Airport internally has added an additional coverage calculation that includes revenue sources that are not defined as gross revenues under the Ordinance. These sources include net revenues from the Public Facility Improvement Corporation, which includes two hotels and a consolidated rental car facility (consolidated facility charges and consolidated transportation charges only), natural gas royalties, and the sale of land. After adding these sources to gross revenues, unaudited FY 2016 coverage is estimated at 1.54x with rolling coverage, and 1.26x without rolling coverage.

<b>Dallas/Fort Worth International Airport</b>					
<b>Debt Service Coverage</b>					
<b>(\$ Millions)</b>					
Coverage Calculation - Gross Revenues	2012	2013	2014	2015	2016
<b>Operating Revenues</b>					
Airfield Cost Center	131.0	140.1	146.2	149.4	151.5
Terminal Cost Center	138.2	164.3	180.0	225.4	272.1
DFW Cost Center	246.5	252.7	268.3	273.6	289.3
<b>Total Operating Revenues</b>	<b>515.7</b>	<b>557.1</b>	<b>594.5</b>	<b>648.4</b>	<b>712.9</b>
Non-Operating Revenues	144.4	156.7	129.2	141.8	148.7
Rolling Coverage	61.8	70.2	68.6	78.5	90.0
<b>Total Gross Revenues</b>	<b>721.9</b>	<b>784.0</b>	<b>792.3</b>	<b>868.7</b>	<b>951.6</b>
Less Operating Expenditures	-344.0	-352.9	-376.9	-392.1	-416.7
<b>Gross Revenues Available for Debt Service</b>	<b>377.9</b>	<b>431.1</b>	<b>415.4</b>	<b>476.6</b>	<b>534.9</b>
Debt Service	247.2	280.9	274.5	314.0	359.9
<b>Debt Service Coverage - Gross Revenues</b>	<b>1.53</b>	<b>1.53</b>	<b>1.51</b>	<b>1.52</b>	<b>1.49</b>
<b>Coverage Calculation - Current Gross Revenues</b>					
Gross Revenues Available for Debt Service	377.9	431.1	415.4	476.6	534.9
Less: Transfers and Rolling Coverage	-85.8	-90.2	-84.6	-90.5	-98.0
Current Gross Revenues available for Debt Service	292.1	340.9	330.8	386.1	436.9
Debt Service	247.2	280.9	274.5	314.0	359.9
<b>Coverage Ratio - Current Gross Revenues</b>	<b>1.18</b>	<b>1.21</b>	<b>1.21</b>	<b>1.23</b>	<b>1.21</b>
<b>Coverage Calculation - All Revenue Sources</b>					
Current Gross Revenues Available for Debt Service	292.1	340.9	330.8	386.1	436.9
Natural Gas Royalties, Land Sales, Interest Income	9.9	13.7	0.0	0.0	0.0
PFIC	21.2	20.8	18.2	18.1	18.3
All Current Revenues Available for Debt Service	323.2	375.4	349.0	404.2	455.2
Debt Service	247.2	280.9	274.5	314.0	359.9
<b>Coverage Ratio - All Current Revenues</b>	<b>1.31</b>	<b>1.34</b>	<b>1.27</b>	<b>1.29</b>	<b>1.26</b>
<b>Coverage Ratio - All Current Revenues plus Capital Transfers and Rolling Coverage</b>	<b>1.65</b>	<b>1.66</b>	<b>1.58</b>	<b>1.58</b>	<b>1.54</b>

Source: Dallas Fort Worth International Airport

### FY 2017 Financial Performance

As of July 31, 2017, DFW's financial performance is exceeding budgeted expectations. The DFW Cost Center recognized \$111.4 million in net revenues, which was 3.0% higher than budgeted expectations. This is primarily driven by expenditure savings since parking revenues are lower than budget by 3.4%, which has led to an overall slight revenue decline from budgeted revenues. Total airfield revenue was \$140.0 million, which was 5.8% higher than budgeted. Total terminal revenues of \$259.5 million were 3.3% below budget. Total combined net income in the terminal and airfield cost centers was \$22.4 million, which exceeded budget by \$11.0 million.

### **Passenger Airline Cost Per Enplanement (CPE)**

DFW has historically been one of the lowest cost large hub airports in the country. Over the past five years passenger airline payments on a per enplanement basis have averaged \$8.95. However, as TRIP debt service comes on line, airline costs are rising and will become significantly higher. DFW forecasts cost per enplanement at \$11.57 for FY 2017, increasing to \$13.77 in FY 2018.

### **Stress Case**

KBRA's stress case is based on an extremely severe enplanement reduction to gauge the impact on CPE. The stress case is event-driven, and mirrors the effect on enplanements of the 9/11 terrorist attacks. Those attacks had a significant negative impact on the U.S. airline industry, and resulted in sharp reductions on both O&D and connecting traffic at DFW. Following 9/11 total enplanements at DFW fell by a combined 16.1%, which is the most significant level of decline recorded in DFW's history.

KBRA's stress case model covers the period from 2018 through 2027. It assumed a reduction in enplanements in 2018 followed by a modest 1.0% annual recovery beginning in 2019. Non-Airline revenues decline and recover at the same rate over the 2018-2027 period. Operating expenses were assumed to increase at an average annual rate of 2.0%, with no operating savings realized from the projects undertaken. The model assumes issuance of the full amount of debt under consideration in the preliminary 10-Year Capital Plan, even though with the exception of the \$320 million Series 2017A bond issue, no further borrowing is scheduled. CPE was calculated based on the minimum amounts that the airlines would be required to pay to meet debt service coverage requirements of the Master Bond Ordinance.

KBRA's stress model projected a peak CPE of \$18.19 in FY 2023. KBRA believes that while CPE rises sharply under this scenario, it remains manageable.

### **System Liquidity**

DFW has historically maintained substantial levels of unrestricted cash, which serves as an offset to its high debt levels. DFW's goal is to maintain a minimum of 450 days cash on hand. As of September 30, 2016, unrestricted cash and investment were sufficient to cover 714 days of operating expenses. Despite the high debt levels, the ratio of debt to available resources is satisfactory, reflecting the favorable liquidity position.

### **Retirement Benefits**

The Airport has two defined-benefit pension plans, the Employee Plan and the Department of Public Safety (DPS) Plan, covering substantially all employees hired before January 1, 2010. As of January 1, 2010, the Employee Plan was closed to new employees. All regular employees hired after January 1, 2010 are enrolled in a defined contribution plan. Per GASB 68 reporting requirements, the Airport recognizes an aggregate net pension liability of \$190.9 million in FY 2016. The Airport has historically set annual employer contribution amounts equal to actuarially determined requirements. In FY 2015, the Airport contributed \$19.3 million and \$7.1 million to the Employee Plan and DPS, respectively. This amount exceeded the FY 2016 actuarially determined contribution.

In addition to pension benefits, the Airport provides certain other post-retirement benefits for retired employees (OPEB). The Airport allows retired employees to participate in the Airport's health insurance plans, and provides a premium subsidy to those former employees. The benefits apply only to retired employees ages 65 and younger, and provide a maximum benefit per employee of \$400 per month.

Based on the foregoing, KBRA views the Airport's finances as consistent with a AA- Rating Determinant rating.

## Rating Determinant 6: Legal Mechanics and Security Provisions

### Bond Security

The Airport's Joint Revenue Improvement Bonds are secured by a first lien on and pledge of Pledged Revenues and Pledged Funds. Pledged Revenues include as Gross Revenues the revenues received by the Airport from the rentals, fees and charges collected from the Signatory Airlines, and other airlines and from other non-airline sources, including transfers from Capital Funds and Special Revenues. Gross Revenues also include any funds transferred to the Airport's Operating Revenue and Expense Fund, including PFCs.

### Rate Covenant

Gross Revenues equal to (1) operation and maintenance expenses; plus (2) 1.25x debt service; plus (3) 1.00x coverage of Subordinate Lien obligations; (4) any additional amounts required by an additional supplemental ordinance; and Current Gross Revenues (excludes transfers) sufficient to pay amount in (1), (3), and (4) plus 1.00x debt service requirements.

### Additional Bonds Test

A Certificate by Authorized Officer that at least one of the following has been met: an Airport Consultant's written report projects Net Revenues for each of three consecutive fiscal years beginning with year debt service is due equals at least 125% of debt service requirements on all outstanding obligations, including the proposed bonds, and the rate covenant, based on current gross revenues is met; or a certificate executed by the Chief Financial Officer of the Board showing that: (1) for either the Board's most recent complete fiscal year; or (2) any 12 consecutive months out of the most recent 18 months, net revenues were at least 125% of maximum annual debt service for all outstanding obligations, including the proposed bonds, and the rate covenant, based on current gross revenues is met.

### Debt Service Reserve Fund Requirement

DFW maintains a debt service reserve fund equal to average annual debt service. Ordinance permits monthly funding deposits into Reserve Fund over 60 months following bond delivery, and deficiencies are required to be restored over a 60-month period. Transfers to the Capital Improvements Fund are suspended until the deficiency is restored. The Reserve Fund is essentially fully cash funded, with the exception of one surety that is expected to be cancelled this year.

### Flow of Funds

All gross revenues are deposited into the Operating Revenue and Expense Fund, when received, then transferred monthly, on or before the last business day to the following Funds in the following order of priority: (1) Debt Service Fund; (2) administrative expenses due to a credit provider to the extent required by a supplemental ordinance; (3) Debt Service Reserve Fund; (4) Any other fund or account required by an Additional Supplemental Ordinance; (5) Subordinate Lien obligations; (6) operation and maintenance expenses; (7) operation and maintenance expenses for ensuing 90 day period; (8) Capital Improvements Fund. Gross Revenues remaining unexpended on the last day of each fiscal year, or at the discretion of an Authorized Officer, may be retained in the Operating Revenue and Expense Fund. Authorized Officer may make transfers at time to Capital Improvement Fund, if rate covenant has been met to date, and is likely to be met for balance of fiscal year. Surplus funds must remain in system.

Based on the foregoing, KBRA views the airport's legal mechanics and security provisions consistent with a AA Rating Determinant rating.

## Conclusion

KBRA has affirmed the long-term rating of **AA-** with a **Stable Outlook** on the Dallas/Fort Worth International Airport (DFW) Joint Revenue Improvement Bonds.

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### Related Publications:

- [Joint Revenue Improvement Bonds, Series 2014C](#)
- [U.S. General Airport Revenue Bond Rating Methodology](#)

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