## ApRIL 2016

## Financial Advisor Report - The Aviation Enterprise

## Introduction

The Finance Committee has requested that the Financial Advisor provide a monthly report on the status of the financing of the Capital Construction Program (CCP) and any related issues concerning the Airports Authority’s Aviation Enterprise capital financing activities. The Financial Advisor presents this Monthly Report, focusing on the specific debt management projects underway, the debt policy framework guiding these projects and the financing of the CCP in general.

## DISCUSSION SUMMARY

This paper is organized as follows:
I. Executive Summary
II. Action Items
A. None
III. Informational Items
A. Series 2016A-B Bond Financing
IV. Monthly Update
A. CCP: Actuals vs. Projections
B. Short-term Liquidity Forecast
C. Variable Rate Programs
D. Swaps - Monthly Swap Performance

## Exhibits

A. Airports Authority's Capital Construction Program
B. Airport System Revenue Bonds

- Summary of Bonds Outstanding
- Refunding Monitor
C. Variable Rate Programs
- Overview
- Historical Performance
D. Swap Program
- Airports Authority Swap Profile
- Historic Performance of Swaps


## I. EXECUTIVE SUMMARY

## Action Items

$\rightarrow$ None to report.

## Informational Items

$\rightarrow$ Series 2016A-B Bond Financing. The Series 2016A-B transaction is expected to include the issuance of bonds to current refund approximately $\$ 468$ million of outstanding Series 2006A-C Bonds. The financing team has evaluated the project cash flows and the liquidity available from cash on hand and the Commercial Paper program and has determined that it is not necessary to include new money bonds in the Series 2016A-B transaction. The financing team continues to evaluate whether to include an advance refunding of the Series 2007A-B Bonds and an unwinding of interest rate swaps. The transaction schedule requires the Finance Committee and the Board to approve substantially final bond documents at the May meetings with an expected bond sale in June.

## II. Action Items

No Action Items to report this month.

## III. INFORMATIONAL ITEMS

## (III.A) Series 2016A-B Bond Financing

The Series 2016A-B bond financing is expected to include the issuance of bonds to current refund approximately $\$ 468$ million of outstanding Series 2006A-C Bonds. Assuming current rates prevail at the time of the expected bond sale in June, a current refunding would produce $\$ 67.8$ million of present value savings, or 14.5 percent of refunded par.

| Series | Callable Par/ Maturities | Range of Interest Rates | Call Date | Call Premium | Savings Required | Net PV Savings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { 2006A } \\ \text { AMT } \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \$ 153,555,000 \\ & (30-32,34-35) \\ & \hline \end{aligned}$ | 4.75\% - 5.00\% | 10/01/16 | $\begin{gathered} 0 \% \\ \text { (at par) } \end{gathered}$ | 1\% | $\begin{gathered} \hline \hline \$ 23.64 \mathrm{~mm} \\ 15.4 \% \\ \hline \end{gathered}$ |
| $\begin{gathered} \text { 2006B } \\ \text { AMT } \end{gathered}$ | $\begin{aligned} & \hline \$ 284,320,000 \\ & (31-32,34-36) \end{aligned}$ | 4.55\% - 5.00\% | 10/01/16 | $\begin{gathered} 0 \% \\ \text { (at par) } \end{gathered}$ | 1\% | $\begin{gathered} \hline \$ 39.58 \mathrm{~mm} \\ 13.9 \% \\ \hline \end{gathered}$ |
| $\begin{gathered} \hline 2006 \mathrm{C} \\ \text { Non-AMT } \end{gathered}$ | $\begin{aligned} & \hline \$ 30,130,000 \\ & (2017-2032) \\ & \hline \end{aligned}$ | 3.75\% - 5.00\% | 10/01/16 | $\begin{gathered} 0 \% \\ \text { (at par) } \end{gathered}$ | 1\% | $\begin{gathered} \hline \$ 4.56 \mathrm{~mm} \\ 15.1 \% \end{gathered}$ |
| Total | $\begin{gathered} \$ 468,005,000 \\ (2017-2036) \end{gathered}$ | 3.75\%-5.00\% | 10/01/16 | $\begin{gathered} 0 \% \\ \text { (at par) } \end{gathered}$ |  | $\begin{gathered} \hline \$ 67.78 \mathrm{~mm} \\ 14.48 \% \\ \hline \end{gathered}$ |

The financing team has evaluated the project cash flows and the liquidity available from cash on hand and the Commercial Paper program and has determined that it is not necessary to include new money bonds in the Series 2016A-B transaction.

The financing team continues to evaluate whether to include an advance refunding of the Series 2007A-B Bonds and an unwinding of interest rate swaps.

The transaction schedule requires the Finance Committee and the Board to approve substantially final bond documents at the May meetings with an expected bond sale in June.

## IV. Monthly Updates

## (IV.A) CCP: Actuals vs. Projections

Exhibit A sets forth the major CCP projects underway at the Airports Authority, as well as historical CCP actual versus projected expenditures. The CCP expenditures for 2016 are budgeted at $\$ 193.6$ million including construction and capitalized interest costs. Expenditures in March 2016 totaled $\$ 0.1$ million, including accrued capitalized interest expenditures.

|  | $2016 ~ C C P ~ P r o j e c t i o n s ~ v s . ~ A c t u a l s ~$ <br> (\$ millions) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | General Ledger <br> Actual | Original <br> Projection | Variance | Variance (\%) |  |
| 16-Jan | $\$ 0.80$ | $\$ 10.33$ | $(\$ 9.53)$ | $(92.25 \%)$ |  |
| 16-Feb | 0.20 | 16.01 | $(15.81)$ | $(98.75 \%)$ |  |
| 16-Mar | 0.10 | 20.65 | $(20.55)$ | $(99.52 \%)$ |  |
| 16-Apr | 18.59 |  |  |  |  |
| 16-May | 12.39 |  |  |  |  |
| 16-Jun | 21.17 |  |  |  |  |
| 16-Jul | 19.88 |  |  |  |  |
| 16-Aug | 20.14 |  |  |  |  |
| 16-Sep | 28.14 |  |  |  |  |
| 16-Oct | 8.26 |  |  |  |  |
| 16-Nov |  |  |  |  |  |
| 16-Dec |  | 0.77 |  |  |  |
| 2016 Totals | $\$ 1.10$ | $\$ 46.99$ | $(\$ 45.89)$ | $(97.66 \%)$ |  |
| (Thru March) |  |  |  |  |  |

(IV.B) Short-term Liquidity Forecast

The following (including the table and chart) is based on information provided to the Financial Advisors by Finance Staff.

As of the beginning of April 2016, the Airports Authority had $\$ 219.6$ million of cash-onhand ${ }^{1}$ and $\$ 200$ million of additional available liquidity in the form of undrawn CP Series Two capacity.

Short-term Liquidity Forecast (\$ millions)

| Beginning <br> of Month | Cash <br> Available | CP Available <br> to Draw <br> (End Bal) | PFCs | Grants | Projected <br> Expenditures |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16-Apr | $\$ 219.64$ | $\$ 200.00$ | $\$ 1.03$ | $\$ 1.85$ | $\$ 18.59$ |
| 16-May | 203.93 | 200.00 | 1.03 | 1.85 | 12.39 |
| 16-Jun | 194.42 | 200.00 | 1.03 | 1.85 | 21.17 |
| 16-Jul | 176.13 | 200.00 | 1.03 | 1.85 | 19.88 |
| 16-Aug | 159.13 | 200.00 | 1.03 | 1.85 | 20.14 |
| 16-Sep | 141.87 | 200.00 | 1.03 | 1.85 | 28.14 |
| 16-Oct | 116.61 | 200.00 | 1.03 | 1.85 | 8.26 |
| 16-Nov | 111.22 | 200.00 | 1.03 | 1.85 | 17.30 |
| 16-Dec | 96.80 | 200.00 | 1.03 | 1.85 | 0.77 |

Short-Term Liquidity Forecast


[^0]
## (IV.C) Variable Rate Programs

In addition to approximately $\$ 850.2$ million of outstanding variable rate debt, the Airports Authority can issue up to $\$ 200$ million of CP Two Notes which are currently "on-the-shelf."

Outstanding unhedged variable rate debt of $\$ 276.4$ million represents approximately 5.8 percent of the Airports Authority's $\$ 4.8$ billion of outstanding indebtedness.

Gross Variable Rate Exposure

| Fixed Rate Debt Percentage: |  |  |
| :--- | ---: | ---: |
| Fixed Rate Debt | $\$ 3,930,065,000$ |  |
| 2009D VRDOs (Hedged) | $122,530,000$ |  |
| 2010C2 VRDOs (Hedged) | $95,095,000$ |  |
| 2010D Index Floater (Hedged) | $155,620,000$ |  |
| 2011A VRDOs (Hedged) | $200,530,000$ |  |
| Fixed Rate |  | $\mathbf{\$ 4 , 5 0 3 , 8 4 0 , 0 0 0}$ |
| Variable Rate Debt Percentage: | $\mathbf{9 4 . 2 \%}$ |  |
| 2003D Index Floater | $57,875,000$ |  |
| 2010C1 VRDOs | $57,925,000$ |  |
| 2011B Index Floater | $160,620,000$ |  |
| CP Notes | 0 |  |
| Variable Rate | $\mathbf{\$ 2 7 6 , 4 2 0 , 0 0 0}$ | $\mathbf{5 . 8 \%}$ |
| Combined Total | $\mathbf{\$ 4 , 7 8 0 , 2 6 0 , 0 0 0}$ | $\mathbf{1 0 0 . 0 \%}$ |

The Airports Authority's current unrestricted cash balances of $\$ 731.2$ million in shortterm investments can be netted against variable rate debt exposure to produce a net variable rate exposure. Currently, unrestricted cash balances exceed the amount of unhedged short-term debt.

Exhibit C-2 illustrates for the current year rolling three-month average spreads to SIFMA of the Airports Authority's variable rate programs, as well as historic spreads to SIFMA by quarter.

## (IV.D) Swaps - Monthly Swap Performance

2002 Swap: Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 4.445 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of onemonth LIBOR based upon the outstanding notional amount of the swap. The 2002 Swap originally hedged the Series 2002C Bonds and now hedges the 2011A-2 which refunded the Series 2002C Bonds in full. On October 1, 2015, the Series 2011A-2 was converted from Index Floaters to VRDOs. Exhibit D-2 provides the historical monthly cash flow history of the 2002 swaps associated with the hedged VRDOs.

2009 Swaps: Under the terms of the swap agreements, the Airports Authority pays to the counterparties an average fixed rate of 4.099 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparties 72 percent
of one-month LIBOR based upon the outstanding notional amount of its respective swaps. The 2009 Swap originally hedged the Series 2009A Bonds and 2009D Bonds. The Series 2009A Bonds were partially refunded by the Series 2010C2 Bonds and the remaining portion was fully refunded by the Series 2011A-3 Bonds. The 2009 swaps now hedge the 2011A-3, 2009D and 2010C2 VRDOs. On October 1, 2015, the Series 2011A3 was converted from Index Floaters to VRDOs. Exhibit D-2 provides the historical monthly cash flow history of the 2009 swaps associated with the hedged VRDOs.

2010 Swap: Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 4.112 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of onemonth LIBOR based upon the outstanding notional amount of the swap. The 2010 Swap hedges the Series 2010D Index Floaters. The Airports Authority pays 72 percent of LIBOR plus 32.5 basis points on the Index Floaters. The effective rate of the swap is therefore equal to the fixed swap rate of 4.11 percent plus the spread of 32.5 basis points: 4.44 percent.

2011 Swap: Under the terms of the swap agreement, the Airports Authority pays to the counterparty a fixed rate of 3.862 percent on the outstanding notional amount of the swap. In return, the Airports Authority receives from the counterparty 72 percent of onemonth LIBOR based upon the outstanding notional amount of the swap. The 2011 Swap hedges the Series 2011A-1. On October 1, 2015, the Series 2011A-1 was converted from Index Floaters to VRDOs. Exhibit D-2 provides the historical monthly cash flow history of the 2011 swaps associated with the hedged VRDOs.

## Exhibit A <br> Airports Authority's CCP

Major projects under construction at Reagan National include:

- Dedicated Fire System Surge Protection

Major projects under construction at Dulles International include:

- Cargo Buildings 1-4 Exterior Rehabilitation;
- Taxilane B Reconstruction \& Widening, East Section; and
- Police Firing Range \& Training Facility

Historical CCP Projections vs. Actuals (2001-2014) (\$ millions)

| General Ledger <br> Actual |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Projection | Variance | Variance (\%) |  |  |
| 2001 Totals | $\$ 370.8$ | $\$ 429.8$ | $(\$ 58.9)$ | $(13.7 \%)$ |
| 2002 Totals | $\$ 295.6$ | $\$ 346.5$ | $(\$ 50.9)$ | $(14.7 \%)$ |
| 2003 Totals | $\$ 282.7$ | $\$ 321.9$ | $(\$ 39.2)$ | $(12.2 \%)$ |
| 2004 Totals | $\$ 349.3$ | $\$ 349.9$ | $(\$ 0.6)$ | $(0.2 \%)$ |
| 2005 Totals ${ }^{3}$ | $\$ 555.8$ | $\$ 574.4$ | $(\$ 18.6)$ | $(3.2 \%)$ |
| 2006 Totals | $\$ 672.2$ | $\$ 713.2$ | $(\$ 41.0)$ | $(5.7 \%)$ |
| 2007 Totals | $\$ 719.4$ | $\$ 689.7$ | $\$ 29.7$ | $4.3 \%$ |
| 2008 Totals | $\$ 537.7$ | $\$ 672.8$ | $(\$ 135.1)$ | $(20.1 \%)$ |
| 2009 Totals | $\$ 349.8$ | $\$ 474.2$ | $(\$ 124.3)$ | $(26.2 \%)$ |
| 2010 Totals | $\$ 220.2$ | $\$ 327.3$ | $(\$ 107.1)$ | $(32.7 \%)$ |
| 2011 Totals | $\$ 167.4$ | $\$ 299.4$ | $(\$ 131.9)$ | $(44.1 \%)$ |
| 2012 Totals | $\$ 118.8$ | $\$ 274.6$ | $(\$ 155.8)$ | $(56.7 \%)$ |
| 2013 Totals | $\$ 152.3$ | $\$ 235.9$ | $(\$ 83.6)$ | $(35.4 \%)$ |
| 2014 Totals | $\$ 113.0$ | $\$ 209.5$ | $(\$ 96.5)$ | $(46.1 \%)$ |
| 2015 Totals | $\$ 75.0$ | $\$ 248.8$ | $(\$ 173.8)$ | $(69.9 \%)$ |

[^1]
## Exhibit B-1

Airport System Revenue Bonds Summary of Bonds Outstanding


* Approximately $22 \%$ of the GARB portfolio is additionally secured through bond insurance.
** All of the Series 2009D, 2010D and 2011A are subject to a floating-to-fixed rate swap.
*** $\$ 95.1$ million of the Series 2010C is subject to a floating-to-fixed rate swap.

| As \% of Total Portfolio |  |
| :---: | :---: |
| Insurer | Percentage |
| Ambac | $10.0 \%$ |
| BHAC | $2.3 \%$ |
| MBIA/National | $6.6 \%$ |
| FSA | $3.2 \%$ |
| Uninsured | $77.9 \%$ |


| As \% of Insured Portfolio |  |
| :---: | :---: |
| Insurer | Percentage |
| Ambac | $45.1 \%$ |
| BHAC | $10.6 \%$ |
| MBIA/National | $29.8 \%$ |
| FSA | $14.5 \%$ |


| TIC of Fixed Rate Debt |
| :---: |
| $4.40 \%$ |

April 20, 2016

# Exhibit B-2 <br> Airport System Revenue Bonds <br> <br> Refunding Monitor 

 <br> <br> Refunding Monitor}

## Refunding Candidates - Non-AMT

The Series 2006C bonds are callable on October 1, 2016 at par.
There are no advance refunding opportunities at this time. ${ }^{4}$

| Series | Callable Par/ <br> Maturities | Range of <br> Interest Rates | Call Date | Call <br> Premium | Savings <br> Required | Net PV Savings | Negative <br> Arbitrage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 C | $\$ 30,130,000$ | $3.75 \%-5.00 \%$ | $10 / 01 / 16$ | $0 \%$ | $1 \%$ | $\$ 4.56 \mathrm{~mm}$ | $\$ 0.70 \mathrm{~mm}$ |
| Non-AMT | $(2017-2032)$ |  |  | (at par) |  | $15.1 \%$ |  |

## Refunding Candidates - AMT

The Series 2006A and 2006B bonds are callable on October 1, 2016 at par.

| Series | Callable Par/ <br> Maturities | Range of <br> Interest Rates | Call Date | Call <br> Premium | Savings <br> Required | Net PV Savings | Negative <br> Arbitrage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 A | $\$ 153,555,000$ | $4.75 \%-5.00 \%$ | $10 / 01 / 16$ | $0 \%$ <br> (at par) | $1 \%$ | $\$ 23.64 \mathrm{~mm}$ | $\$ 3.76 \mathrm{~mm}$ |
| AMT | $(30-32,34-35)$ |  |  | $15.4 \%$ |  |  |  |
| 2006 B | $\$ 284,320,000$ | $4.55 \%-5.00 \%$ | $10 / 01 / 16$ | $0 \%$ <br> (at par) | $1 \%$ | $\$ 39.58 \mathrm{~mm}$ | $\$ 7.01 \mathrm{~mm}$ |
| AMT | $(31-32,34-36)$ |  |  | $13.9 \%$ |  |  |  |

## Refunding Candidates - Taxable

The Series 2007A and 2007B bonds are callable on October 1, 2017 at par. These are private activity bonds and may only be advance refunded on a taxable basis.
$\left.\begin{array}{c|c|c|c|c|c|c|c}\hline \text { Series } & \begin{array}{c}\text { Callable Par/ } \\ \text { Maturities }\end{array} & \begin{array}{c}\text { Range of } \\ \text { Interest Rates }\end{array} & \text { Call Date } & \begin{array}{c}\text { Call } \\ \text { Premium }\end{array} & \begin{array}{c}\text { Savings } \\ \text { Required }\end{array} & \text { Net PV Savings } & \begin{array}{c}\text { Negative } \\ \text { Arbitrage }\end{array} \\ \hline \hline 2007 \mathrm{~A} & \$ 77,005,000 & 4.75 \%-5.00 \% & 10 / 01 / 17 & \begin{array}{c}0 \% \\ (a t ~ p a r)\end{array} & 2 \% & \$ 3.38 \mathrm{~mm} & \$ 1.71 \mathrm{~mm} \\ \text { AMT } & (18-23) & & & 4.4 \%\end{array}\right]$

There are no other taxable refunding candidates at this time. ${ }^{5}$

[^2]Below are the refunding guidelines previously accepted by the Board:

| Time Between Call Date and <br> Issuance of Refunding Bonds | Traditional Financing Products <br> Minimum PV \% Savings | Non-Traditional Financing Products <br> Minimum PV \% Savings |
| :---: | :---: | :---: |
| 0 to 90-days (Current) | Greater of Call Premium or 1\% | Call Premium + 1\%-2\% |
| 90-days to 1-year | Call Premium $+1 \%$ | Call Premium + 2\%-3\% |
| 1-year to 2-years | Call Premium $+2 \%$ | Call Premium $+3 \%-4 \%$ |
| $>2$-years | Call Premium $+3 \%$ | Call Premium $+4 \%-5 \%$ |

## Exhibit C-1

Variable Rate Programs Overview

## Summary of Dealers, Credit Enhancement and Bank Facilities

Details of Dealers

| Dealer | Program/ <br> Series | Amount <br> (\$MM) | Remarketing <br> Fees |
| :--- | :--- | ---: | :---: |
| Merrill Lynch | CP: Series Two* | Up to $\$ 200$ | $0.05 \%$ |
| Wells Fargo | Index Floater: 2003 D1 Bonds | $\$ 57.875$ | None |
| Bank of America | VRDO: 2009D Bonds** | $\$ 122.530$ | $0.06-0.08 \%$ |
| Barclays | VRDO: 2010C Bonds | $\$ 153.020$ | $0.06 \%$ |
| Wells Fargo | Index Floater: 2010D Bonds | $\$ 155.620$ | None |
| $R B C$ | VRDO: 2011A Bonds | $\$ 200.530$ | $0.06 \%$ |
| $P N C$ | Index Floater: 2011B Bonds | $\$ 160.620$ | None |

[^3]
## Details of Facilities

| Bank Provider | Facility | Program/ <br> Series | Amount <br> $(\mathbf{\$ M M})$ | Costs <br> $(\mathbf{b p s})$ | Expiration Date |
| :--- | :--- | :--- | ---: | :--- | ---: |
| Sumitomo | LOC | CP: Series Two | $\$ 200.000$ | 33.0 | March 6, 2017 |
| Wells Fargo | Index Floater | 2003 D1 | $\$ 57.875$ | $31.5^{*}$ | October 1, 2018 |
| TD Bank | LOC | 2009 D VRDO | $\$ 122.530$ | 35.0 | February 28, 2021 |
| Sumitomo | LOC | 2010 C VRDO | $\$ 153.020$ | 34.0 | September 21, 2020 |
| Wells Fargo | Index Floater | 2010 D | $\$ 155.620$ | $32.5^{*}$ | September 23, 2017 |
| RBC | LOC | 2011A VRDO | $\$ 200.530$ | 27.0 | September 28, 2018 |
| PNC | Index Floater | 2011B | $\$ 160.620$ | $32.0^{*}$ | October 2, 2017 |

* This is a fixed spread to the 72 percent of LIBOR Index.


## Exhibit C-2

Variable Rate Programs Historical Performance

The following tables illustrate (i) rolling three-month average spreads to SIFMA and (ii) rolling 12-month average spread to SIFMA including credit and remarketing fees.

2016 Interest Rates (quarterly)

| Quarter | 2003D1 <br> Wells <br> Index $^{6}$ | 2009D1 <br> BoA <br> Weekly | 2009D2 <br> BoA <br> Daily | 2010C1 <br> Barclay <br> Weekly $^{7}$ | 2010C2 <br> Barclay <br> Weekly | 2010D <br> Wells <br> Index | 2011A <br> RBC <br> Weekly | 2011B <br> PNC <br> Index | CP 2 $^{\text {W }}{ }^{9}$ | SIFMA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12-month | $0.647 \%$ | $0.640 \%$ | $0.654 \%$ | $0.593 \%$ | $0.584 \%$ | $0.470 \%$ | $0.629 \%$ | $0.463 \%$ | -- | $0.042 \%$ |
| Rolling Average |  |  |  |  |  |  |  |  |  |  |
| Jan 16-Mar 16 | $0.564 \%$ | $0.509 \%$ | $0.522 \%$ | $0.408 \%$ | $0.398 \%$ | $0.579 \%$ | $0.341 \%$ | $0.574 \%$ | -- | $0.054 \%$ |

2004-2015 Historical Interest Rates (annually)

| Year | 2003D1 | 2009D1 | 2009D2 | 2010C1 | 2010C2 | 2010D | 2011A | 2011B | CP 2 | SIFMA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 | $0.708 \%$ | $0.689 \%$ | $0.700 \%$ | $0.688 \%$ | $0.680 \%$ | $0.434 \%$ | $0.773 \%$ | $0.429 \%$ | -- | $0.03 \%$ |
| 2014 | $0.761 \%$ | $0.684 \%$ | $0.703 \%$ | $0.783 \%$ | $0.780 \%$ | $0.621 \%$ | $0.881 \%$ | $0.666 \%$ | $0.597 \%$ | $0.05 \%$ |
| 2013 | $0.724 \%$ | $0.662 \%$ | $0.676 \%$ | $0.707 \%$ | $0.709 \%$ | $0.696 \%$ | $0.866 \%$ | $0.749 \%$ | $1.347 \%$ | $0.09 \%$ |
| 2012 | $0.415 \%$ | $0.671 \%$ | $0.682 \%$ | $0.624 \%$ | $0.629 \%$ | $0.754 \%$ | $0.828 \%$ | -- | $1.339 \%$ | $0.16 \%$ |
| 2011 | $0.405 \%$ | $0.648 \%$ | $0.668 \%$ | $0.599 \%$ | $0.606 \%$ | $0.745 \%$ | -- | -- | $1.468 \%$ | $0.17 \%$ |
| 2010 | $0.413 \%$ | $1.243 \%$ | $1.307 \%$ | -- | -- | -- | -- | -- | $0.323 \%$ | $0.26 \%$ |
| 2009 | $0.390 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.791 \%$ | $0.40 \%$ |
| 2008 | $2.079 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.116 \%$ | $2.21 \%$ |
| 207 | $0.649 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.281 \%$ | $3.62 \%$ |
| 2006 | $0.474 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.381 \%$ | $3.45 \%$ |
| 2005 | $0.364 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.306 \%$ | $2.47 \%$ |
| 2004 | $0.438 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.258 \%$ | $1.24 \%$ |

[^4]The following tables illustrate (i) rolling three-month average spreads to SIFMA, and (ii) rolling 12-month average spread to SIFMA excluding credit and remarketing fees.

2016 Interest Rates (quarterly)

| Quarter | 2003D1 <br> Wells <br> Index | 2009D1 <br> BofA <br> Weekly | 2009D2 <br> BofA <br> Daily | 2010C1 <br> Barclay $^{\text {Week }^{10}}$ | 2010C2 <br> Barclay <br> Weekly | 2010D <br> Wells <br> Index | 2011A <br> RBC <br> Week | 2011B <br> PNC <br> Index | CP 2 <br> ML $^{13}$ | SIFMA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12-month | $0.137 \%$ | $-0.003 \%$ | $-0.009 \%$ | $0.012 \%$ | $0.004 \%$ | $0.145 \%$ | $0.049 \%$ | $0.144 \%$ | -- | $0.042 \%$ |
| Rolling Average |  |  |  |  |  |  |  |  |  |  |

2006-2015 Historical Interest Rates (annually)

| Year | 2003D1 | 2009D1 | 2009D2 | 2010C1 | 2010C2 | 2010D | 2011A | 2011B | CP 2 | SIFMA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 | $0.102 \%$ | $-0.005 \%$ | $-0.010 \%$ | $0.012 \%$ | $0.005 \%$ | $0.109 \%$ | $0.072 \%$ | $0.109 \%$ | -- | $0.03 \%$ |
| 2014 | $0.061 \%$ | $-0.006 \%$ | $-0.007 \%$ | $0.003 \%$ | $0.000 \%$ | $0.060 \%$ | $0.061 \%$ | $0.019 \%$ | $0.040 \%$ | $0.05 \%$ |
| 2013 | $0.047 \%$ | $-0.004 \%$ | $-0.010 \%$ | $-0.003 \%$ | $-0.001 \%$ | $0.046 \%$ | $0.046 \%$ | $-0.001 \%$ | $0.144 \%$ | $0.09 \%$ |
| 2012 | $0.054 \%$ | $0.021 \%$ | $-0.017 \%$ | $-0.007 \%$ | $-0.001 \%$ | $0.007 \%$ | $0.008 \%$ | -- | $0.189 \%$ | $0.16 \%$ |
| 2011 | $0.055 \%$ | $0.004 \%$ | $-0.033 \%$ | $-0.033 \%$ | $-0.024 \%$ | $-0.013 \%$ | -- | -- | $0.315 \%$ | $0.17 \%$ |
| 2010 | $0.063 \%$ | $-0.014 \%$ | $-0.000 \%$ | -- | -- | -- | -- | -- | $0.113 \%$ | $0.26 \%$ |
| 2009 | $0.040 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.581 \%$ | $0.40 \%$ |
| 2008 | $1.673 \%$ | -- | -- | -- | -- | -- | -- | -- | $-0.094 \%$ | $2.21 \%$ |
| 2007 | $0.239 \%$ | -- | -- | -- | -- | -- | -- | -- | $0.032 \%$ | $3.62 \%$ |
| 2006 | $-0.026 \%$ | -- | -- | -- | -- | -- | -- | -- | $-0.099 \%$ | $3.54 \%$ |
| 2005 | $-0.046 \%$ | -- | -- | -- | -- | -- | -- | -- | $-0.084 \%$ | $2.47 \%$ |
| 2004 | $0.028 \%$ | -- | -- | -- | -- | -- | -- | -- | $-0.012 \%$ | $1.24 \%$ |

[^5]
## Exhibit D-1 <br> Swap Program <br> Airports Authority Swap Profile

The table below summarizes the Airports Authority's current swap portfolio. All of the Airports Authority's swaps require payment of a fixed rate by the Airports Authority to the counterparty and the receipt of a variable rate by the Airports Authority based upon 72 percent of LIBOR.

| Trade Date | Effective Date | Termination Date ("final maturity") | Swap Providers | Ratings Moody's/S\&P/ Fitch | Outstanding Notional Amount (\$millions) | Hedged Series | Current Termination Value (\$millions) $^{14}$ | Fixed Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07/31/01 | 08/29/02 | 10/01/21 | Bank of America | A1/A/A+ | \$34.0 | 2011A-2 | (\$4.0) | 4.445\% |
| 06/15/06 | 10/01/09 | 10/01/39 | JPMorgan Chase Bank of America | $\begin{gathered} \mathrm{Aa} 3 / \mathrm{A}+/ \mathrm{AA}- \\ \mathrm{A} 1 / \mathrm{A} / \mathrm{A}+ \end{gathered}$ | $\begin{array}{r} \$ 170.1 \\ \$ 98.5 \\ \$ 268.6 \end{array}$ | $\begin{aligned} & \text { 2011A-3 } \\ & \text { 2009D } \\ & \text { 2010C2 } \end{aligned}$ | $\begin{aligned} & (\$ 60.6) \\ & (\$ 34.3) \\ & \hline(\$ 94.9) \end{aligned}$ | 4.099\% |
| 06/15/06 | 10/01/10 | 10/01/40 | Wells Fargo | Aa2/AA-/AA | \$155.6 | 2010D | (\$57.8) | 4.112\% |
| 09/12/07 | 10/01/11 | 10/01/39 | Wells Fargo | Aa2/AA-/AA | \$115.5 | 2011A-1 | (\$34.7) | 3.862\% |
|  |  |  |  | Aggregate Swaps | \$573.8 |  | (\$191.3) |  |

The table below presents the all-in effective rate of the swaps. The 2010 swap hedges only index floaters. The interest rate paid on the index floaters is equal to 72 percent of LIBOR plus an agreed upon spread. The effective rate is therefore equal to the fixed swap rate plus the agreed upon spread ( 32.5 basis points on the 2010D Bonds). In Exhibit D-2, we track the monthly performance and all-in effective rate of the 2002, 2009 and 2011 swaps in relation to the hedged VRDOs.

| Effective <br> Date | Notional <br> Amount <br> (\$millions) | Hedged Series | Fixed <br> Rate | All-In <br> Effective <br> Rate* |
| :---: | ---: | :--- | :--- | :--- |
| $8 / 29 / 02$ | $\$ 34.0$ | 2011A-2 (VRDOs) | $4.445 \%$ | $4.564 \%$ |
| $10 / 1 / 09$ | $\$ 268.6$ | 2011A-3,2009D,2010C2 (VRDOs) | $4.099 \%$ | $4.853 \%$ |
| $10 / 1 / 10$ | $\$ 155.6$ | 2010D (Index Floaters) | $4.112 \%$ | $4.437 \%$ |
| $10 / 1 / 11$ | $\$ 115.5$ | 2011A-1 (VRDOs) | $3.862 \%$ | $3.983 \%$ |
| *The Effective Rate takes into account the |  |  |  |  |

*The Effective Rate takes into account the agreed upon spread on index floaters and remarketing and bank facility costs on the VRDOs.

[^6]
## Exhibit D-2 <br> Swap Program <br> Swap Effective Interest Rate to-date and Monthly Performance

2002 Swap: The Airports Authority's 2002 Swap is a fixed-payor interest rate swap. Under the 2002 Swap, (a) the Airports Authority pays a fixed rate of interest, 4.445 percent, to the swap counterparty; and (b) in return, the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR. The variable rate received from the counterparty is designed to closely correlate to the interest rate the Airports Authority pays on the underlying variable rate bonds, thereby creating essentially fixed rate debt ("synthetic" fixed rate debt). The Swap Agreement was dated July 31, 2001, and became effective August 29, 2002. The 2002 swap counterparty is Bank of America. The 2002 Swap hedges the 2011A-2. The swap previously hedged the Series 2002C Bonds until these bonds were refunded by the 2011A-2 Bonds. On October 1, 2015, the Series 2011A-2 was converted from Index Floaters to VRDOs.

2009 Swap: The Airports Authority's 2009 Swap is a fixed-payor interest rate swap. Under the 2009 Swap: (a) the Airports Authority pays a fixed rate of interest, 4.099 percent, to the swap counterparty; and (b) in return, the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR, thereby creating synthetic fixed rate debt. The Swap Agreement was dated June 15, 2006, and became effective on October 1, 2009. The 2009 Swap counterparties were Bear Stearns and Bank of America. However, Bear Stearns was bought by JP Morgan in March 2008. The 2009 swap hedges the Series 2011A-3 Bonds, Series 2009D Bonds and the Series 2010C2 Bonds. The swap previously hedged the Series 2009A Bonds until these bonds were refunded by the 2011A-3 Bonds (the calculated effective rate does take into account the 2009A Bonds prior to their refinancing). On October 1, 2015, the Series 2011A-3 was converted from Index Floaters to VRDOs.

2011 Swap: The Airports Authority’s 2011 Swap is a fixed-payor interest rate swap. Under the 2011 Swap, (a) the Airports Authority pays a fixed rate of interest, 3.862 percent, to the swap counterparty; and (b) in return, the swap counterparty pays the Airports Authority a variable rate of interest equal to 72 percent of one-month LIBOR, thereby creating synthetic fixed rate debt. The Swap Agreement was dated September 12, 2007, and became effective October 1, 2011. The 2011 swap counterparty is Wells Fargo. The 2011 Swap hedges the 2011A-1. On October 1, 2015, the Series 2011A-1 was converted from Index Floaters to VRDOs.

The following table presents the 72 percent of one-month LIBOR rate received from the counterparties, the average monthly interest rate on the hedged variable rate bonds paid by the Airports Authority, and the resulting effective all-in interest rate on the swap.

Hedged VRDOs and Swaps

| Month | $\underset{15}{\text { LI-M }}$ |  | 2002 Swap (Rate 4.445\%) |  |  | 2009 Swap (Rate 4.099\%) |  |  | 2011 Swap (Rate 3.862\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { 72\% } \\ \text { 1-M } \\ \text { LIBOR } \end{gathered}$ | Average All-In Interest Rate | Effective Interest Rate | All-In Effective Rate to Date | Average All-In Interest Rate | Effective Interest Rate | All-In <br> Effective <br> Rate to <br> Date | Average All-In Interest Rate | Effective Interest Rate | All-In <br> Effective <br> Rate to Date |
| Mar 2016 | 0.44\% | 0.31\% | 0.49\% | 4.62\% | 4.56\% | 0.54\% | 4.32\% | 4.85\% | 0.49\% | 4.03\% | 3.98\% |
| Feb 2016 | 0.43\% | 0.31\% | 0.35\% | 4.48\% | 4.56\% | 0.41\% | 4.20\% | 4.86\% | 0.35\% | 3.90\% | 3.98\% |
| Jan 2016 | 0.43\% | 0.31\% | 0.35\% | 4.49\% | 4.58\% | 0.54\% | 4.33\% | 4.87\% | 0.35\% | 3.91\% | 4.00\% |

Historical

| 2015 | 0.20\% | 0.14\% | -- | -- | -- | 0.71\% | 4.66\% | 4.91\% | -- | -- | -- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | 0.16\% | 0.11\% | -- | -- | -- | 0.78\% | 4.77\% | 4.95\% | -- | -- | -- |
| 2013 | 0.19\% | 0.14\% | -- | -- | -- | 0.78\% | 4.74\% | 4.99\% | -- | -- | -- |
| 2012 | 0.24\% | 0.17\% | -- | -- | -- | 0.82\% | 4.75\% | 5.06\% | -- | -- | -- |
| 2011 | 0.23\% | 0.17\% | -- | -- | -- | 0.87\% | 4.80\% | 5.21\% | -- | -- | -- |
| 2010 | 0.27\% | 0.20\% | -- | -- | -- | 1.41\% | 5.31\% | 5.35\% | -- | -- | -- |
| 2009 | 0.24\% | 0.17\% | -- | -- | -- | 1.59\% | 5.52\% | 5.52\% | -- | -- | -- |

[^7]
[^0]:    ${ }^{1}$ Cash-on-hand includes proceeds of the Series 2014A and 2015B Bonds and Funds 63 and 64.

[^1]:    ${ }^{2}$ Historical projections for 2001-2003 do not reflect periodic revisions. 2002: the last revision for 2002 projected $\$ 271$ million of capital spending for the year. 2003: the last revision for 2003 projected a total of $\$ 287.5$ million.
    ${ }^{3}$ Projection reflects December 2005 budget amendment.

[^2]:    ${ }^{4}$ The Series 2006C, Series 2012B and Series 2013C Bonds are Non-AMT. However, they may not be advance refunded since the proceeds were used to advance refund other Airports Authority Bonds. The Series 2009B, Series 2009C, Series 2010A and Series 2010F1 Bonds were issued as private activity Non-AMT Bonds and cannot be advance refunded. The Series 2011D Bonds are advance refundable, but given the length of time to the call date, they are not a viable refunding candidate at this time.
    ${ }^{5}$ The Series 2013B and Series 2015D Bonds are Taxable and advance refundable. However, the Series 2013B Bonds can only be called prior to maturity with a make whole call provision, and the Series 2015D Bonds, given the length of time to the call date, are not a viable refunding candidate at this time.

[^3]:    * The CP Series One has been suspended and the CP Series Two is authorized to be issued up to $\$ 200$ million effective March 6, 2014.
    ** The Series 2009D Bonds in a daily mode have a 0.08 percent remarketing fee and those bonds in a weekly mode have a 0.06 percent remarketing fee.

[^4]:    ${ }^{6}$ On October 1, 2015, Wells Fargo purchased the 2003D-1 Bonds as Index Floaters. On December 18, 2012, Bank of America purchased the 2003D-1 Bonds as Index Floaters. On April 16, 2009, Wells Fargo took over the remarketing of the 2003D-1 Bonds from Goldman Sachs.
    ${ }^{7}$ On September 22, 2015, the 2010C1 was converted from 2-day to weekly VRDOs.
    ${ }^{8}$ On October 1, 2015, the 2011A was converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by RBC.
    ${ }^{9}$ On July 15, 2015, the Commercial Paper Series Two was refunded in its entirety.

[^5]:    ${ }^{10}$ On October 1, 2015, Wells Fargo purchased the 2003D-1 Bonds as Index Floaters. On December 18, 2012, Bank of America purchased the 2003D-1 Bonds as Index Floaters. On April 16, 2009, Wells Fargo took over the remarketing of the 2003D-1 Bonds from Goldman Sachs.
    ${ }^{11}$ On September 22, 2015, the 2010C1 was converted from 2-day to weekly VRDOs.
    ${ }^{12}$ On October 1, 2015, the 2011A was converted from Wells Fargo Index Floaters to weekly VRDOs remarketed by RBC.
    ${ }^{13}$ On July 15, 2015, the Commercial Paper Series Two was refunded in its entirety.

[^6]:    ${ }^{14}$ Amounts as of March 31, 2016; A negative value represents a payment by the Airports Authority to the counterparty if the swap is terminated in the current market; a positive value represents a receipt by the Airports Authority if the swap is unwound in the current market.

[^7]:    ${ }^{15}$ One-month LIBOR is weighted average of weekly one-month LIBOR as reset each Tuesday for a Thursday effective date.

