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CREDIT OPINION
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Philadelphia (City of) PA Airport Enterprise

Update following A2 rating affirmation

Summary

Philadelphia (City of) PA Airport Enterprise's credit profile reflects Philadelphia International Airport's (PHL) fundamentally strong market position for travel in the Philadelphia metropolitan region and hub airport for connecting traffic and transatlantic gateway by American Airlines.

The credit quality also reflects our expectation of continuing sound coverage and leverage levels going forward. The credit profile considers the airport's improved liquidity position despite the weaker than average enplanement recovery, mostly driven by its exposure to international travelers (13% of pre-COVID enplanements). As of fiscal 2021, the airport had around 482 days of liquidity, up from 324 days in 2020. Liquidity is expected to remain robust as the airport system still benefits from approximately $115 million of federal relief grants available to apply to rates and charges with the airlines as needed and also due to lower debt service costs stemming from the defeasance of Philadelphia Parking Authority's outstanding bonds.

The airport system's credit quality assumes the airport's new use and lease agreement (AULA) with signatory airlines will continue to apply a cost center residual rate methodology. The AULA expired on June 30, 2022, and the airport is currently in negotiation of a new agreement, though major changes are not expected. The airport is also in the process of developing an updated capital program, although it does not anticipate a significant increase from the last program approved in 2021. The airport's capital program is modest and the approximate $466.4 million of debt expected through fiscal 2026 would not have a material impact on total leverage levels given the front-loaded debt service profile. Also, most of the projects are related to state of good repairs and could be deferred if traffic recovery is below the expectation.

Credit strengths

- Large, stable service area with a robust economy, forming the base for O&D demand
- A capital program that focuses on PHL's more pressing needs, demonstrating management's understanding of the airport's evolving requirements and targeting its resources accordingly
- Manageable leverage structured into a front-loaded debt service profile with an average life of less than 11 years

Credit challenges

- Competition from nearby airports in the New York and Baltimore metropolitan areas lowers passenger utilization rates
- Higher exposure to international traffic, which Moody's expects to be slower to recover from the pandemic impacts than domestic travel
- Though liquidity has improved and remains adequate given the residual rate structure, levels remain below other international hubs and similarly-rated airports

Rating outlook

The stable outlook is predicated on our view that credit metrics will remain sound, supported by timely cost recovery, modest and flexible capital plan amid slower than average enplanement recovery.

Factors that could lead to an upgrade

- A significant positive change in market position and/or traffic and revenue growth well above the current projection
- Liquidity improving to more than 600 days cash on hand on a sustained basis

Factors that could lead to a downgrade

- Longer-term negative shift in enplanements reflecting a changed market position
- Unexpected, unrecovered expenses that further decrease liquidity
- Capital plan results in substantial increases in debt above currently projected levels in the medium term

Key indicators

Exhibit 1

Philadelphia (City of) Airport Enterprise

FY 2017 - FY 2021

	2017	2018	2019	2020	2021
Enplanement Annual Growth (%)	-5.59	2.96	5.53	-26.36	-44.78
Debt Outstanding ($'000)	1,428,565	1,738,332	1,676,652	1,625,047	1,529,783
Adjusted Debt to Operating Revenues (x)	4.83	5.14	4.94	6.41	5.79
Adjusted Debt Per O&D Enplaned Passenger ($)	182.07	206.65	190.26	254.21	390.58
Days Cash on Hand ('000)	180	276	327	324	482
Senior Lien Coverage (Bond Ordinance) (x)	2.83	2.89	3.10	3.24	3.32
Senior Lien Coverage By Net Revenues (x)	0.96	1.26	1.41	1.03	1.08

FYE June 30

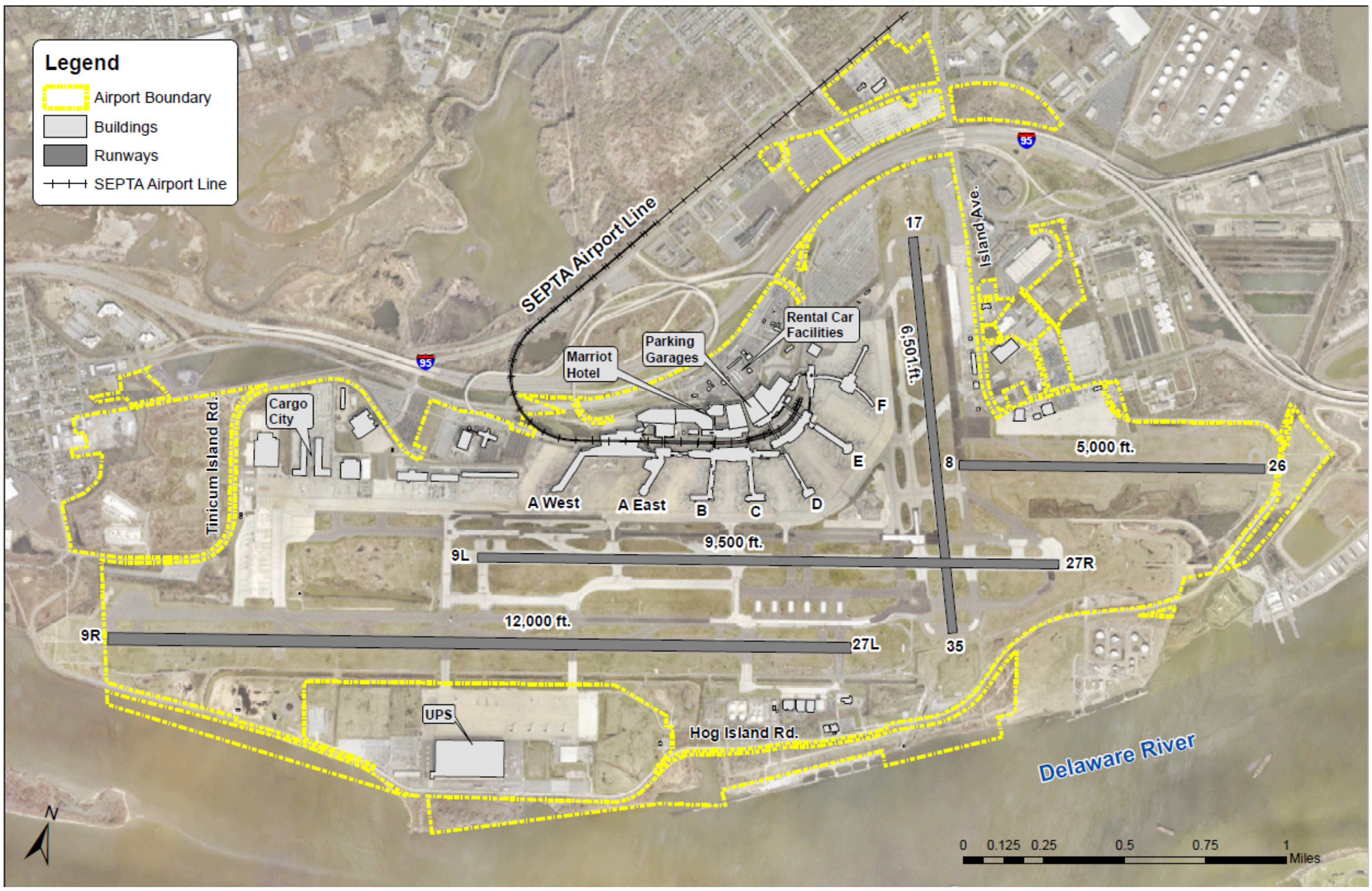
Source: Moody's Investors Service, as adjusted

Profile

The Philadelphia Airport System is owned by the City of Philadelphia and operated by the city's Department of Aviation. It is comprised of Philadelphia International Airport (PHL) and its general aviation reliever airport, Northeast Philadelphia Airport (PNE). PHL is located approximately eight miles southwest of downtown Philadelphia and is classified by the FAA as a large hub airport based on enplanements. It has operated as an American Airlines hub since the merger with US Airways in 2015, which had been the dominant carrier since the 1980s.

PHL's terminal complex is located north of the two main runways and includes seven terminals, each with a concourse; a landside building for ticketing, check-in, and security; and a separate baggage claim building. The complex is approximately 3.3 million square feet and contains 126 aircraft gates. Approximately 150,000 square feet of terminals have been developed for concessions. PHL's airfield consists of four runways - two main, parallel runways, a shorter crosswind runway and a commuter runway - as well as taxiways and apron parking. The runways system is capable of handling the largest commercial aircrafts operated by the signatory airlines.

Exhibit 2
PHL Airport Layout



Source: PHL

Detailed credit considerations

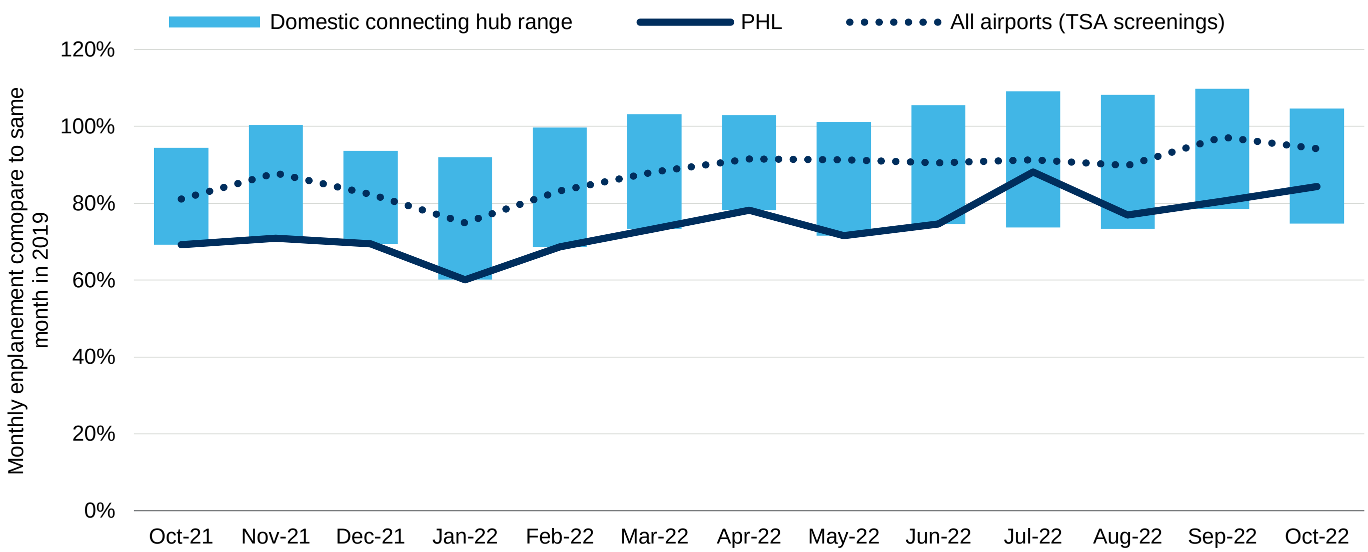
Revenue Generating Base

Despite weaker than average traffic recovery, PHL's large service area and strategic location will continue to support travel demand

PHL's enplanement recovery has lagged behind the national average and has been on the bottom range of other domestic connecting hub airports in the country. In October 2022, enplanement volumes reached 84% of 2019 levels, and year-to-date it is still at 76% of pre-pandemic levels. Airports in the Northeast with exposure to international travel like PHL have been slower to recover than airports that serve mostly domestic leisure or more traffic to Latin American destinations. In normal conditions, approximately 13% of PHL's enplaned passengers are international travelers. Also, although airports with high connecting traffic have performed better, PHL's main carrier, American Airlines (64.8% of total enplanements in fiscal 2022), has opted to maintain more capacity at its hubs at Dallas-Fort Worth Int'l. Airport Board, TX and Charlotte-Douglas International Airport as these two are more well-positioned geographically to support domestic connectivity. Nonetheless, PHL is expected to remain American Airline's main transatlantic gateway since it is better suited than other nearby airports like JFK to serve transatlantic destinations with dispersed demand. PHL is American Airlines' fifth largest hub and largest transatlantic gateway.

Exhibit 3

PHL's enplanement recovery has lagged the national average and other domestic connecting hub airport in the US



Source: PHL, airport websites, Transportation Security Administration

Travel demand at PHL is underpinned by its large and economically robust service area. The airport's primary service area consists of the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Combined Statistical Areas (CSA), which is the nineth-largest CSA in the US by population. The economy of the city of Philadelphia continues to be anchored by some of the top higher education and health care institutions in the nation, and these institutions will be the cornerstone of the city's longer term recovery. Despite losing population during the pandemic, both residential and commercial developments continue to flourish across the city, with its education institutions continuing to invest in the city's long term development. However, Philadelphia's high poverty level remains a concern and could be worsened by a prolonged period of high inflation and recession, limiting the city's ability to raise taxes in the future if required. As of October 2022, the city's unemployment has moderated to 4.7%, though higher than the state and the US average.

PHL is the only commercial airport in the Philadelphia CSA. The closest commercial airports in the area are Trenton-Mercer Airport (TTN) and Atlantic City International Airport (ACY), both with limited levels of air service as compared to PHL. At 90 miles to the northeast, Newark Liberty International Airport (EWR) is the closest true competitor to PHL. EWR is within a two-hour drive of Philadelphia's city center, but also benefits from hourly Acela non-stop high-speed rail service to the airport from Philadelphia's 30th Street Station. Philadelphia is also less than a two-hour drive from Baltimore–Washington International Airport (BWI), 110 miles to the southwest. Though these competing hubs benefit from a broader service offering, the competitive risk to PHL is partially mitigated by capacity limits and slot restrictions of the New York-area airports, leaving them unable to serve as true connecting hubs to smaller cities.

Ownership of airport parking garages to increase non-airline net revenues

In January 2022, the Department of Aviation assumed ownership of airport parking garages from Philadelphia Parking Authority (PPA) following the defeasance of the $53.8 million PPA airport parking bonds. The department used funds from its commercial paper program and available parking bond reserves to repay PPA's outstanding airport parking bonds. As a result, the department will have direct oversight of the parking operation, more control over its budget and costs, as well as the implementation of capital projects to better align with the airport's master planning process, all of which is positive from a credit perspective. Parking revenues will also increase the airport's non-airline revenues going forward, which could alleviate rates charged to airlines under the new airline use and lease agreement that is currently under negotiation.

PPA will continue to manage the parking facilities through October 31, 2023 under an interim parking management agreement. The department is currently developing an RFP for parking management services that is expected to be issued in early 2023.

The new Airline Use and Lease Agreement is expected to be signed in fiscal 2023; no major changes to the old one are anticipated

Currently, the department is finalizing the negotiation of the new Airline Use and Lease Agreement (AULA) and expects to be signed in fiscal 2023. The department does not anticipate major changes from the old agreement that expired on June 30, 2022. The $1.26 billion of capital expenditures approved by the signatory airlines under the previous agreement is not expected to materially change either. The airport will continue to operate under a residual rate-making methodology. In the meantime, the airlines operating at the airport are under rates by regulation.

We also expect that the airport will successfully sign the new agreement with most of the signatory airlines under the old one, especially because the airport has managed well the costs borne to airlines during the pandemic. The airport sought to reduce overall airline revenue requirement in order to mitigate cost impacts to the airlines. In fiscal 2021, the first full year of the pandemic's impact to airport operations, the airport reduced the airline revenue required by 19.8% to $186.6 million from $232.7 million in fiscal 2020. With the application of federal relief grants, pledging of additional PFC Revenues, and no greenfield capital projects underway, the airline cost per enplanement (CPE) for fiscal 2022 is projected to be just below $17, down from $25.5 in 2021 and more in line with historical levels.

Financial and Operational Position - Credit metrics are expected to remain adequate; some capital projects could be deferred adding flexibility to its financial performance

The airport system's coverage metrics have been narrow but adequate given its fully residual rate structure. In fiscal 2021, when financial metrics were entirely impacted by the pandemic, debt service coverage on a Moody's net revenues basis remained relatively stable from fiscal 2020 at 1.1x. To mitigate depressed non-airline revenues, the airport has implemented several cost reduction measures and applied federal relief funds to pay debt service and operating expenses.

Historically, the airport system has maintained a low level of leverage in comparison to its peers. However, in fiscal 2021 leverage measured by Moody's adjusted debt per O&D enplaned passengers peaked to $390.6 as a function of depressed enplanement levels.

Going forward we expect financial metrics to return to historic ranges along with enplaned passenger recovery. The airport system's capital plan is modest, with projects that could be deferred if traffic recovery is slower than the expectation, adding further flexibility to its financial performance. Moody's notes that the approximately $466 million of debt issuance expected through fiscal 2026 would not have a material impact on total leverage levels given the front-loaded debt service profile.

Liquidity

The airport system's liquidity position has improved over the last three years despite the pandemic downturn. As of fiscal 2021, the airport had around 482 days of liquidity, up from 324 days in 2020. In response to the crisis, the system's total amount awarded of federal relief funds was almost $261 million, from which approximately $145 million was applied to pay debt service and operating expenses through fiscal 2022.

Liquidity is expected to remain strong as the airport system still benefits from approximately $115 million of federal relief grants available to apply to rates and charges with the airlines as needed. In addition, liquidity could further improve following the acquisition and direct oversight of the airport's parking facilities. Non-airline net revenues are expected to improve due to lower debt service costs stemming from the defeasance of Philadelphia Parking Authority's outstanding bonds.

Debt and Other Liabilities

Capital Improvement Plan

The airport's ongoing Capital Development Program (CDP) includes $1.26 billion of projects approved by the signatory airlines, of which $373 million has been spent to date. In general, the CDP is comprised of numerous projects that focus on renewal and rehabilitation work of the terminals, airfield pavement, security and information technology enhancements, and airfield enabling projects for cargo development at PHL and airfield pavement and tenant improvements at the PNE. Major elements of the approved capital projects include $301 million of general terminal improvement and rehabilitation, $279.2 million in taxiway and airfield improvements, $101 million in the restroom program and $58.3 million for the loading bridge replacement program.

The $1.26 billion CDP will be funded with PFCs, grants, paygo, previously issued debts, and approximately $466 million of issuance debt expected through fiscal 2026. The airport anticipates CDP projects can be further deferred or advanced, as needed, based on recovery to pre-COVID-19 pandemic activity levels.

Legal Security

The bonds are secured by a pledge of net revenues. Bondholders also benefit from a rate covenant of 100% of net O&M and 150% of debt service on GARBs in a given year or 100% of O&M, debt service on GARBs, debt service on GO bonds issued for airport improvements, and subordinate obligations secured by amounts available for debt service. There is also a debt service reserve fund, funded to the standard three-prong test.

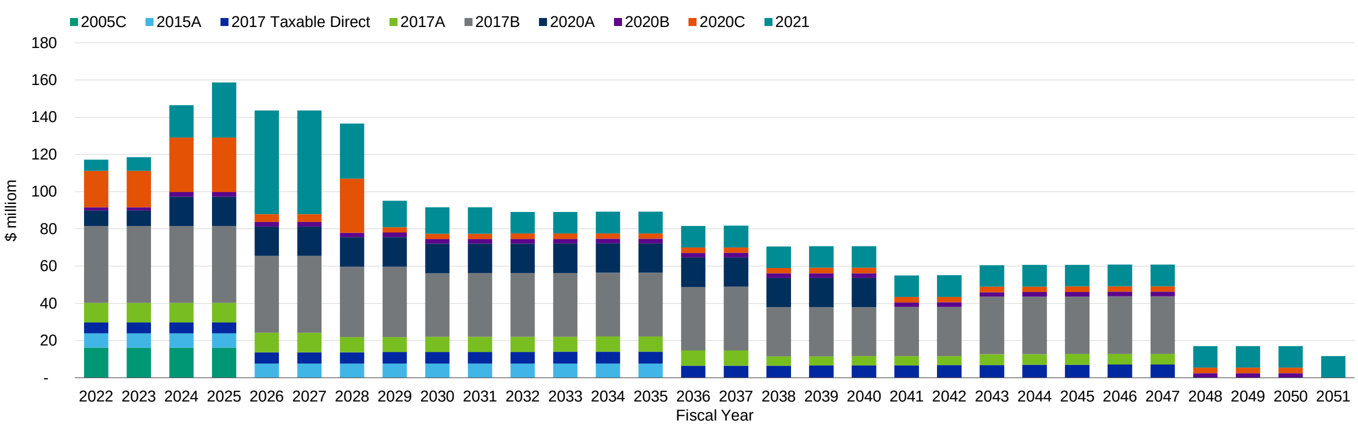
Debt Structure

All general airport revenue debt is currently on the senior lien. Series 2005C, with $46.1 million outstanding, is in variable-rate mode (indexed to SIFMA) through a Direct Purchase by US Bank and is hedged with an interest rate swap. This variable-rate liability represents approximately 4% of the airport's long-term debt. The debt portfolio is front-loaded and has an average life of less than 11 years.

PHL has a Series 2017 $112.9 million taxable loan that is not rated by Moody's.

Exhibit 4

PHL Annual Debt Service Profile



Source: PHL

Debt-Related Derivatives

The Series 2005C variable-rate bonds are hedged with a floating-to-fixed rate swap, provided by JPMorgan Chase Bank. The swap has a positive mark-to-market of $749,700 as of September 30, 2022.

Pensions and OPEB

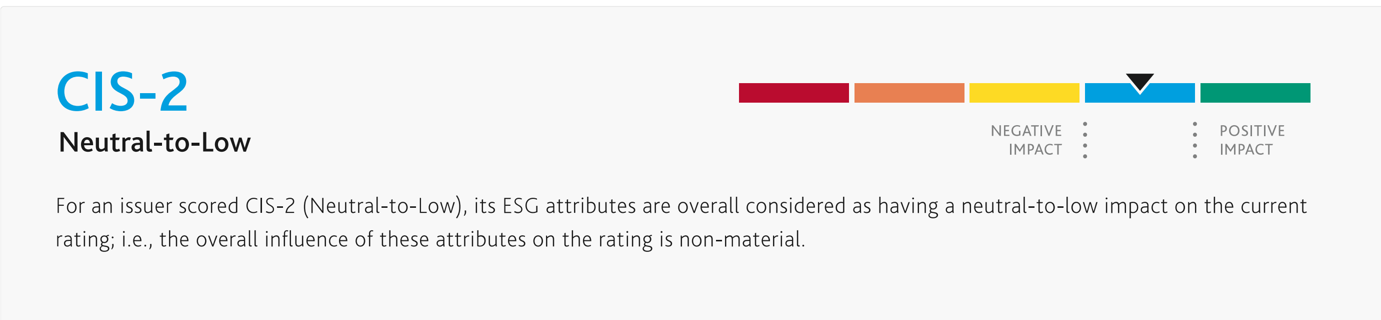
Moody's adjusts the reported pension liabilities of entities that report under governmental accounting standards, to enhance comparability across rated issuers. Under governmental pension accounting, liabilities are discounted using an assumed rate of investment return on the plan assets. Under our adjustment, we value liabilities using the FTSE Pension Liability Index (FTSE PLI), a high investment-grade long-term taxable bond index, as a discount rate to compute the present value of accrued benefits and a proxy for the risk of pension benefits.

Pursuant to GASB 68, as of fiscal 2021, the airport reported a net pension liability of $173 million. Moody's calculates an adjusted net pension liability (ANPL) at $428 million, based on our lower discount rate assumption (2.84% vs the airport's 7.50% reported rate). This amount is relatively high (28%) in relation to outstanding debt, but very manageable given the low total amount of debt outstanding and limited future issuance plans versus its peers.

ESG considerations

Philadelphia (City of) PA Airport Enterprise's ESG Credit Impact Score is Neutral-to-Low CIS-2

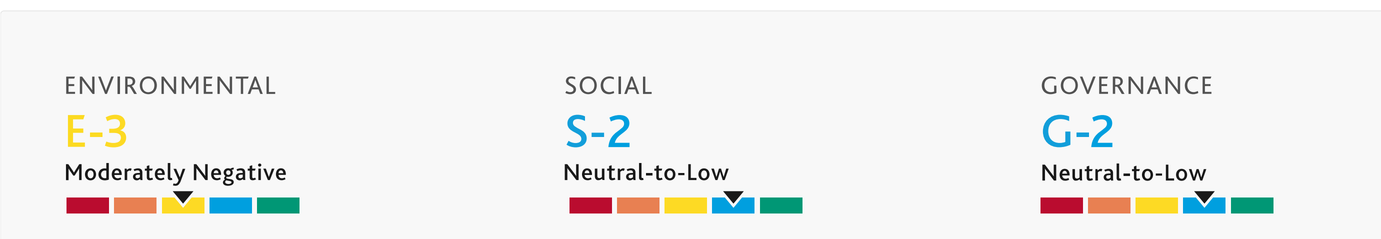
Exhibit 5
ESG Credit Impact Score



Source: Moody's Investors Service

Philadelphia (City of) PA Airport Enterprise (PHL) ESG credit impact score of **CIS-2** indicates that ESG considerations have a neutral-to-low impact on the rating. The score reflects PHL's moderate environmental risk and neutral-to-low social and governance risks.

Exhibit 6
ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental
PHL's environmental risk (**E-3** issuer profile score) reflects moderate carbon transition risk. Evolving decarbonization policies around the globe and regulations may increase operating costs for airlines and result in higher airfares that reduce the demand for air travel. Further, the desire by some to reduce carbon emissions may lead to reduced travel, in particular, corporations seeking to reduce their carbon footprints. Our consideration of carbon transition risk is balanced by neutral-to-low risk for physical climate risks, water management, natural capital, and waste and pollution.

Social
Exposure to social risk (**S-2** issuer profile score) is neutral-to-low as it relates to customer relations, demographic and social trends, health and safety, human capital, and responsible production. Levels of social risk related to the linkage between carbon transition and demographic and societal policies to be lower in the US than in other regions given the geographically dispersed nature of the country and the lack of viable rail alternatives.

Governance

PHL's exposure to governance risk is neutral-to-low (**G-2** issuer profile score) as it relates to our assessment of management credibility and track record, organizational structure, compliance and reporting, and board structure, policies and procedures. Federal Aviation Administration regulation of US airports tightly restricts the use of funds generated at US airports to aviation purposes and essentially eliminates the possibility that a municipal owner could extract value from the airport at the expense of bondholders. The Philadelphia Airport System is owned by the City of Philadelphia and operated by the city's Department of Aviation. It is comprised of Philadelphia International Airport (PHL) and its general aviation reliever airport, Northeast Philadelphia Airport (PNE).

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

The principal methodology used in this rating is Publicly Managed Airports and Related Issuers rating methodology published in March 2019.

The scorecard indicated outcome under the Publicly Managed Airports and Related Issuers methodology is A1 for fiscal 2021, one notch above the A2 rating assigned to senior lien revenue bonds. The assigned A2 rating considers the airport's enplanement recovery, which has trailed national averages.

The grid is a reference tool that can be used to approximate credit profiles in the US airport industry in most cases. However, the grid is a summary that does not include every rating consideration. Please see the Publicly Managed Airports and Related Issuers rating methodology for more information about the limitations inherent to the scorecard.

Exhibit 7

Methodology scorecard indicated outcome for Philadelphia (City of) PA Airport Enterprise

FY 2021

Regional Position:	National		
Rate Making Framework:	Residual		
Factor	**Subfactor**	**Score**	**Metric**
1. Market Position	a) Size of Service Area (millions)	Aaa	7.4
	b) Economic Strength and Diversity of Service Area	Aa	
	c) Competition for Travel	A	
2. Service Offering	a) Total Enplanements (millions)	Aaa	11.6
	b) Stability of Traffic Performance	Baa	
	c) Stability of Costs	Baa	
	d) Carrier Base (Primary Carrier as % of Total Enplanements)	Baa	64.8%
3. Leverage and Coverage	a) Net Revenue Debt Service Coverage	Baa	1.08
	b) Debt + ANPL (in USD) per O&D Enplaned Passenger	A	$390.58
		Metric	**Notch**
4. Liquidity	Days Cash on Hand	482	0.0
5. Connecting Traffic	O&D Traffic	76.6%	0.0
6. Potential for Increased Leverage			0.0
7. Debt Service Reserves			0.0
Scorecard Indicated Outcome:		**A1**	

Source: Moody's Investors Service, as adjusted

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