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### CREDIT OPINION
19 November 2024

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# City of Philadelphia, PA
## Update to credit analysis

### Summary

Philadelphia, PA's (A1 stable) credit profile features very low leverage and a financial position at its strongest level in many years. The city's financial projections show reserves (currently about 13% of revenue on a Moody's-adjusted basis) moderating over the next few years, though management has always been very conservative in its forecasts, one of several positive governance attributes. A low leverage burden (long-term liabilities are just 190% of revenue) will remain a key strength relative to peers. Philadelphia's commitment to funding its pension plan has contributed to the city having among the lowest leverage burdens of any big city.

The rating also incorporates a growing economy with substantial institutional presence including major universities such as the University of Pennsylvania (Aa1 stable), the Children's Hospital of Philadelphia (Aa2 stable), and other significant employers including Comcast Corp. (A3 stable). Philadelphia's biggest credit weakness is its challenging demographic profile, and it lags most other big cities in economic growth and income levels (resident income is 76% of the US median, the lowest among the 20 biggest cities). Other credit considerations include a hefty long-term capital plan, which could modestly add to leverage incrementally over time.

Exhibit 1
**Philadelphia's financial position likely to weaken after reaching historic high**
$ in thousands
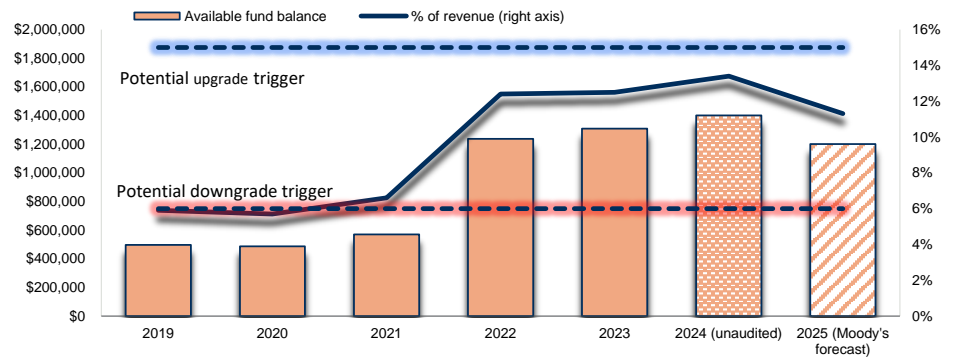


Moody's-adjusted available fund balance encompasses all governmental funds and business-type activities.
*Source: Moody's Ratings*

## Credit strengths

» Among the lowest leverage of any big city

» Strongest financial position in decades

» Regional economic engine and hub for jobs, arts and culture, and sports

» Demonstrated commitment to pension funding

» Comprehensive long-term planning under state oversight

## Credit challenges

» Challenging demographic profile, with high poverty and low income

» Heavy capital investment needs

» Likely declines in reserves going forward

» Economically sensitive revenue composition

## Rating outlook

The stable outlook recognizes that the city will preserve its fiscal integrity even as it spends down its historically high reserves, thanks to comprehensive long-term planning and effective state supervision. Leverage will remain low and the city will remain a regional economic engine powered by numerous institutional anchors, albeit one with a challenging demographic profile.

## Factors that could lead to an upgrade

» Sustained available fund balance ratio above 15% of revenue

» Material income growth and reduction in poverty

## Factors that could lead to a downgrade

» Indication that available fund balance could slip below 6% of revenue

» Significant increase in leverage arising from heavy capital needs

» Economic underperformance relative to the nation or region

## Key indicators

Exhibit 2
**Philadelphia (City of) PA**

| | 2021 | 2022 | 2023 | 2024 (est) | A Medians |
|---|---|---|---|---|---|
| **Economy** | | | | | |
| Resident income ratio (%) | 76.9% | 76.0% | 76.0% | 76.0% | 85.3% |
| Full Value ($000) | $99,268,222 | $100,781.161 | $105,789,486 | $203,683,051 | $765,032 |
| Population | 1,596,865 | 1,593,208 | N/A | N/A | 10,363 |
| Full value per capita ($) | $62,164 | $63,257 | $66,400 | $86,723 | N/A |
| Annual Growth in Real GDP | 4.3% | 1.7% | 1.7% | N/A | 4.7% |
| **Financial Performance** | | | | | |
| Revenue ($000) | $8,664,614 | $9,985,439 | $10,463,839 | $10,425,814 | $22,589 |
| Available fund balance ($000) | $570,119 | $1,237,910 | $1,308,720 | $1,400,908 | $9,301 |
| Net unrestricted cash ($000) | $3,134,694 | $4,519,148 | $4,809,485 | $4,257,429 | $13,502 |
| Available fund balance ratio (%) | 6.6% | 12.4% | 12.5% | 13.4% | 40.7% |
| Liquidity ratio (%) | 36.2% | 45.3% | 46.0% | 40.8% | 55.3% |
| **Leverage** | | | | | |
| Debt ($000) | $8,098,710 | $9,045,487 | $9,158,890 | $9,830,604 | $18,954 |
| Adjusted net pension liabilities ($000) | $11,678,992 | $9,381,434 | $8,106,193 | $7,507,655 | $28,106 |
| Adjusted net OPEB liabilities ($000) | $2,006,634 | $2,045,066 | $1,656,799 | $1,656,799 | $1,627 |
| Other long-term liabilities ($000) | $1,130,800 | $1,088,700 | $1,061,900 | $1,061,900 | $749 |
| Long-term liabilities ratio (%) | 264.5% | 215.9% | 191.0% | 192.4% | 272.9% |
| **Fixed costs** | | | | | |
| Implied debt service ($000) | $585,355 | $568,041 | $631,735 | $636,034 | $1,360 |
| Pension tread water contribution ($000) | $536,288 | $431,511 | $449,319 | $424,267 | $864 |
| OPEB contributions ($000) | $97,800 | $97,800 | $101,100 | $101,100 | $56 |
| Implied cost of other long-term liabilities ($000) | $72,035 | $79,314 | $76,035 | $76,035 | $47 |
| Fixed-costs ratio (%) | 14.9% | 11.8% | 11.9% | 11.9% | 12.6% |

For definitions of the metrics in the table above please refer to the US Cities and Counties Methodology or see the Glossary in the Appendix below. Metrics represented as N/A indicate the data were not available at the time of publication. The medians come from our most recently published US Cities and Counties Median Report.

The real GDP annual growth metric cited above is for the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area. Note that some of the figures for 2024 are based on an unaudited financial statement or estimated from other sources, and will differ from the official figures once the city's 2024 audit is available.

*Sources: US Census Bureau, Philadelphia (City of) PA's financial statements and Moody's Ratings, US Bureau of Economic Analysis*

## Profile

Philadelphia is the sixth-largest city in the United States, with a population of 1.6 million and a nominal gross domestic product of $120 billion.

## Detailed credit considerations

### Economy: Regional economic engine with challenged demographic profile

Philadelphia is simultaneously a powerful regional economic engine with a number of major institutional anchors, and an economically lagging city struggling with a challenging demographic profile. This will remain the case for the time being, as neither the city's high poverty and relatively low resident income, nor its status as a $120 billion economy that acts as a hub for employers, arts and culture, sports, etc., is likely to change in the coming years.

Most of the ways we evaluate socioeconomic strength show Philadelphia as weak. Of the 20 biggest Moody's-rated cities by population, Philadelphia ranks last in median household income, and next to last in full value per capita and per capita income. (Most of these cities are rated higher than Philadelphia).

Exhibit 3
**Philadelphia's economic health compared to the 20 biggest Moody's-rated cities**

| City | Median household income | Per capita income | Full value per capita |
|------|------------------------:|------------------:|----------------------:|
| **Philadelphia (A1)** | **76.0%** | **86.1%** | **$66,400** |
| San Jose (Aa1) | 157.0% | 191.4% | $245,486 |
| Hempstead (Aaa) | 155.9% | 134.9% | $170,757 |
| San Francisco (Aa1) | 154.3% | 201.9% | $404,112 |
| Seattle (Aaa) | 135.9% | 152.9% | $410,037 |
| Austin (Aa1) | 116.5% | 132.8% | $252,000 |
| San Diego (Aa2) | 114.6% | 99.1% | $240,914 |
| Denver (Aaa) | 106.4% | 159.7% | $331,166 |
| Charlotte (Aaa) | 101.7% | 120.5% | $176,472 |
| Fort Worth (Aa3) | 93.5% | 91.4% | $108,227 |
| Phoenix (Aa1) | 92.5% | 93.5% | $148,283 |
| Chicago (Baa3) | 90.2% | 105.2% | $123,390 |
| New York (Aa2) | 90.2% | 252.4% | $184,059 |
| Los Angeles (Aa2) | 89.7% | 100.1% | $210,617 |
| Columbus (Aaa) | 89.2% | 96.6% | $66,144 |
| Jacksonville (Aa2) | 86.7% | 87.1% | $161,191 |
| Indianapolis (Aaa) | 83.9% | 108.4% | $112,750 |
| San Antonio (Aaa) | 83.4% | 84.4% | $107,192 |
| Dallas (A1) | 82.2% | 111.5% | $152,442 |
| Houston (Aa3) | 81.4% | 106.9% | $140,935 |

Median household income and per capita income are adjusted for the regional cost of living and shown relative to the US median. Income shown as of 2022 and full value per capita shown as of 2023, for comparative purposes.
*Source: Moody's Ratings*

Meanwhile, the ways we measure socioeconomic weakness likewise show Philadelphia as weak. Of the 20 biggest Moody's-rated cities in the US, Philadelphia as of 2022 had the highest rates (meaning the weakest) of poverty, unemployment, and households on public assistance or food stamps. (Again – most of the other cities are rated higher.)

Exhibit 4
**Philadelphia's economic weakness compared to the 20 biggest Moody's-rated cities**

| City | Poverty | Unemployment | Households on public assistance or food stamps |
|---|---|---|---|
| **Philadelphia (A1)** | **22.7%** | **8.6%** | **27.4%** |
| Hempstead (Aaa) | 5.6% | 5.1% | 6.3% |
| San Jose (Aa1) | 7.9% | 4.7% | 8.4% |
| Seattle (Aaa) | 10.1% | 4.2% | 9.0% |
| San Francisco (Aa1) | 10.5% | 5.4% | 9.9% |
| San Diego (Aa2) | 11.4% | 6.1% | 9.5% |
| Charlotte (Aaa) | 11.7% | 4.7% | 10.1% |
| Denver (Aaa) | 11.7% | 4.7% | 9.3% |
| Austin (Aa1) | 12.4% | 4.4% | 7.8% |
| Fort Worth (Aa3) | 13.4% | 5.3% | 13.1% |
| Phoenix (Aa1) | 14.6% | 5.2% | 12.7% |
| Jacksonville (Aa2) | 14.8% | 4.8% | 16.4% |
| Indianapolis (Aaa) | 15.9% | 5.6% | 13.2% |
| Los Angeles (Aa2) | 16.6% | 7.7% | 14.9% |
| Chicago (Baa3) | 16.9% | 8.2% | 19.3% |
| New York (Aa2) | 17.2% | 7.6% | 21.2% |
| Dallas (A1) | 17.5% | 5.0% | 12.5% |
| San Antonio (Aaa) | 17.7% | 5.9% | 17.1% |
| Columbus (Aaa) | 18.1% | 5.2% | 13.6% |
| Houston (Aa3) | 19.6% | 6.6% | 15.4% |

All figures are shown as of 2022 and come from the Census Bureau, which is a different survey from the Bureau of Labor Statistics.
*Source: US Census Bureau*

The pandemic hit the city particularly hard. Philly lost 2.4% of its population from 2020 to 2022. While employment now exceeds pre-pandemic levels, the city's economy is still significantly underperforming the region, the state, and especially the nation.

Exhibit 5
**5-year real GDP growth**
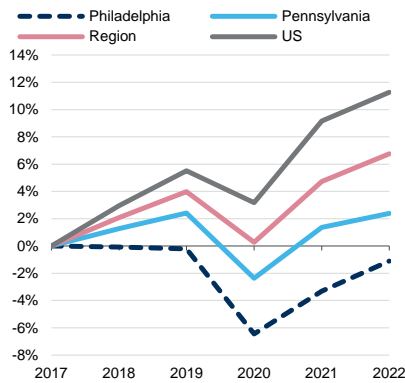


*Source: Bureau of Economic Analysis*

Exhibit 6
**5-year personal income growth**
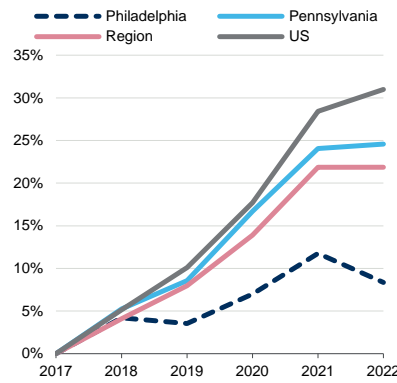


*Source: Bureau of Economic Analysis*

Exhibit 7
**5-year per capita personal income growth**
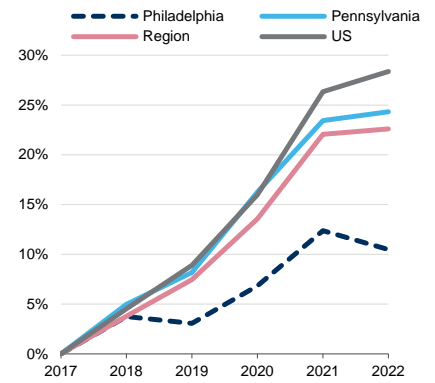


*Source: Bureau of Economic Analysis*

The city's economic growth remains slow, and payroll growth is now below the regional and US rate. We expect a challenging demographic profile and a difficult business climate will continue to hold the city back for the time being.

A few positives to highlight: median household income has been improving (the resident income ratio jumped from 70.5% in 2019 to 76% in 2022); the city has added more than 50,000 housing units over the past five years; and, after spiking well above the national rate during the pandemic, the city's unemployment rate (3.9%) is now lower than the national rate (4.1%).

More important, Philadelphia remains a regional economic engine in ways not fully reflected in economic data, powered by a number of anchors including the University of Pennsylvania, Penn Medicine, Comcast Corp., the Children's Hospital of Philadelphia, and many others.

The importance of the city's employment base can be seen in its taxable income, which determines its wage tax receipts (see financial performance below). The taxable income of both residents and nonresidents has been climbing, notwithstanding a difficult period during the pandemic.

Exhibit 8
**Taxable income**
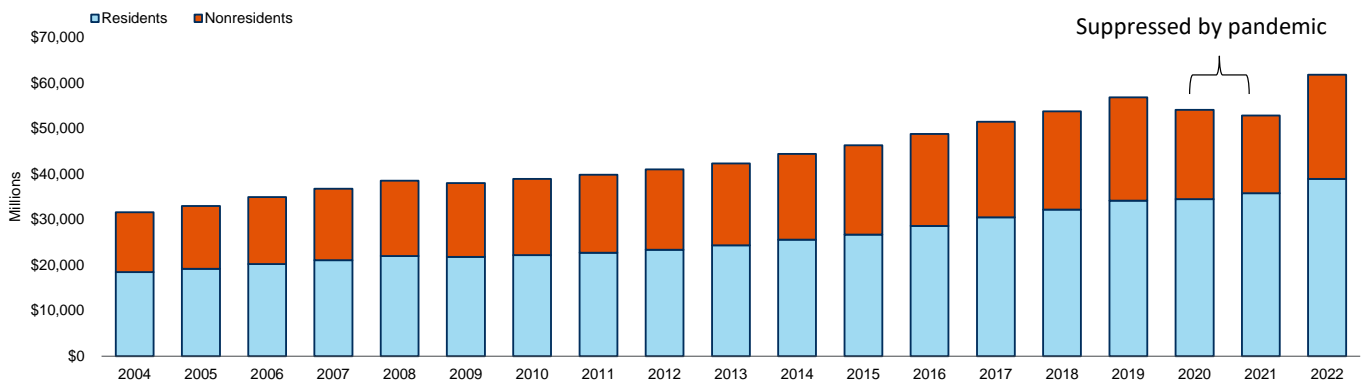


Source: City of Philadelphia

The dynamic of an employment hub with a significant eds and meds presence that also faces a challenging demographic profile will persist for the city indefinitely.

## Financial performance: Solid financial position has likely peaked

Philadelphia has taken substantial strides in improving its financial position, benefitting from federal aid and good tax revenue performance the past couple of years. The city is now sitting on its strongest financial position in decades, and some pullback is likely in the next few years.

Exhibit 9
**General fund balance at its highest level in years**
$ in thousands
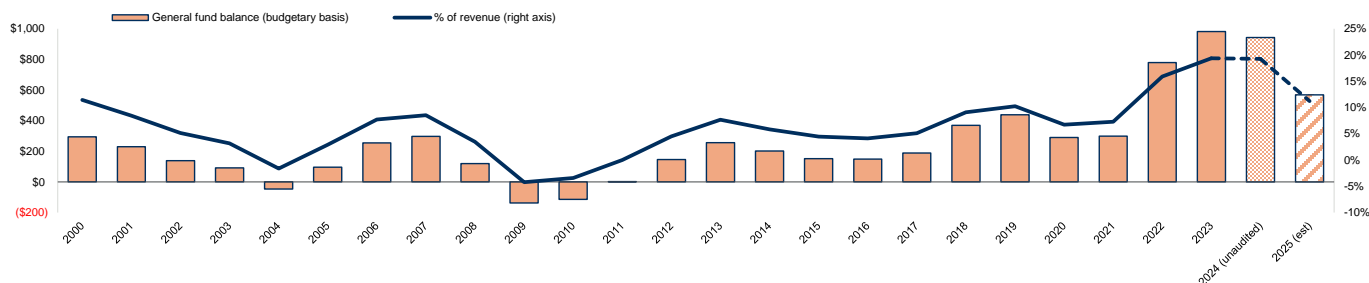


(Note that this exhibit shows for all years the general fund balance on a budgetary basis, which differs from our available fund balance calculation in a number of ways. Most important, this only includes the general fund, whereas our available fund balance includes all funds of the primary government. However, we believe the general fund balance is still a useful proxy for financial management and performance.)
*Source: City of Philadelphia*

A primary factor driving the fund balance higher has been that the city's various tax revenues have been performing well. To a greater extent than most other cities, Philadelphia's budget is funded by a variety of taxes, some of which are economically sensitive. Strong performance in the wage tax (27% growth from 2021 to 2024) and business taxes (23%) helped drive the fund balance in 2024 to its apex.

Exhibit 10
**Philadelphia revenue composition**

| General Fund revenue | 2023 actual | % of general fund | Description |
|---|---|---|---|
| Wage tax | $2,407,480 | 42% | 3.75% wage tax for residents, 3.44% for non-residents |
| Property tax | $809,568 | 14% | 1.3998% property tax rate |
| Business income and receipts | $673,256 | 12% | 0.1415% on gross receipts and 5.81% on net income |
| Property transfer tax | $378,782 | 7% | 3.278% tax levied on property sales |
| Sales tax | $302,201 | 5% | 2% sales tax |
| Charges/fees/other | $410,614 | 7% | Various |
| Parking lot tax | $101,941 | 2% | 22.5% parking tax |
| Intergovernmental | $430,017 | 7% | Federal and state grants |
| Other | $257,852 | 4% | Other |
| **General Fund revenue** | **$5,771,711** | **100%** | |
| **All revenue** | **2023 actual** | **% of all revenue** | **Description** |
| General Fund revenue | $5,771,711 | 55% | General fund total |
| Water and sewer | $817,096 | 8% | Utility user rates |
| Intergovernmental revenue | $2,892,749 | 28% | State and federal grants excluding general fund |
| Airport | $502,615 | 5% | Airport revenues |
| Other | $479,668 | 5% | Other |
| **Total revenue** | **$10,463,839** | **100%** | |

General Fund revenue includes net transfers in.
*Source: Philadelphia, Moody's Ratings*

**Financial position likely to weaken from here**
Most likely, the 2024 fund balance represents the peak for now.

A new mayor took office this year with an ambitious agenda to invest $2 billion in making the city safer, cleaner and greener. This ambition, combined with the fact that even after a likely draw from reserves in 2025 the city will be above its target of 6% to 8% fund balance[1], indicates likely further deficits the next few years. Other contributors to draws going forward include the city increasing its funding to the Philadelphia School District, lower than expected real estate transfer taxes, and catching up on personnel after several years of hiring challenges (most of the city's labor contracts expire at the end of June).

The city's latest proposed five-year financial plan shows the city's budget basis general fund balance rapidly declining, beginning with the current fiscal year.

While we do expect some decline in fund balance, we note that the city's projections are always very conservative. Last year around this time, the city projected a budget basis general fund balance of $529 million for fiscal 2024. The actual figure was $943 million. Similarly, the city has outperformed its five-year financial plan substantially every year in recent memory. Even if the fund balance ends 2025 with the decline the city is now expecting, it would still be far higher than it projected five years ago.

Exhibit 11
**Actual fund balance versus projection 5 years prior**
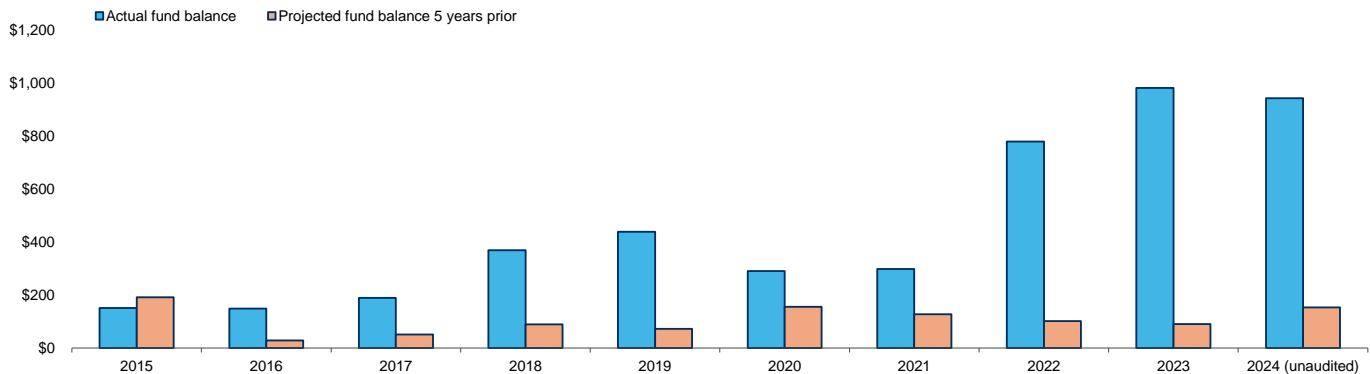


Projections are taken from the city's initially proposed 5-year plan for each year, in order to be comparable with the currently proposed 5-year plan discussed above. These are often revised before being finalized.
*Source: City of Philadelphia*

A favorable aspect of this fact pattern is that all of this is done under state oversight via the Pennsylvania Intergovernmental Cooperation Authority, and the state has extended PICA's oversight of Philly through at least 2047.

Thus far we have examined the budget basis general fund balance, which is the basis for the city's financial management strategy. Our analysis of the city's fiscal position takes a broader view, including not only the general fund but all governmental funds and business-type activities (mostly entailing the water fund and the airport fund). On this basis, the available fund balance of governmental funds and the unrestricted net current assets of its business-type activities sum to 13.4% of revenue based on an unaudited financial statement for fiscal 2024, which is also up significantly from just a few years ago.

(One quick technical note on our adjusted fund balance: this adjusted figure incorporates a large negative balance in the city's grants fund, which in accounting terms reflects grants received in cash but not yet eligible to be spent. Excluding this noncash item, the adjusted fund balance is closer to 20% of revenue.)

In addition to the tax revenue performance that helped drive the general fund balance higher, the available fund balance for all funds has strengthened thanks to the performance of the city's water and sewer utility and aviation fund, which generated a surplus of more than $150 million last year.

Although the city's financial position represents a real improvement, it remains a laggard compared to many other higher-rated cities. Of the 20 biggest rated cities by population, Philadelphia has the third-lowest Moody's-calculated available fund balance.

Exhibit 12
**Available fund balance for the 20 biggest rated cities**
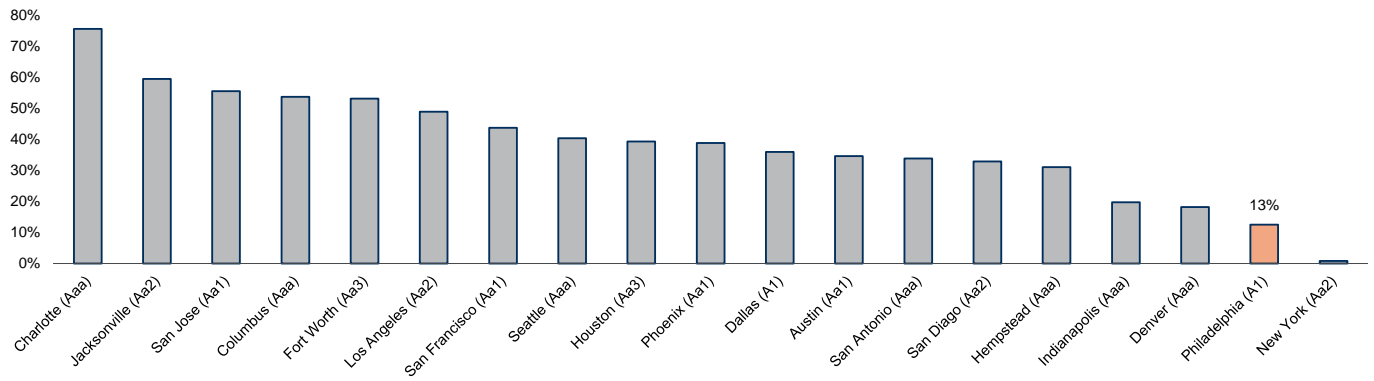


We have excluded from this chart the City of Chicago, which has a negative Moody's-calculated available fund balance due to the accounting treatment of a concession deal.
*Source: Moody's Ratings*

## Leverage: Modest debt, minimal OPEB, well-funded pension plan a key strength

Philadelphia's modest leverage relative to peers is a key strength, and its commitment to funding its pension plan will ensure it remains so.

Of the 20 biggest rated cities by population, Philadelphia's ratio of long-term liabilities to revenue is the lowest.

Exhibit 13
**Philadelphia has the second-lowest leverage of any big city**
Moody's-adjusted long-term liabilities relative to revenue
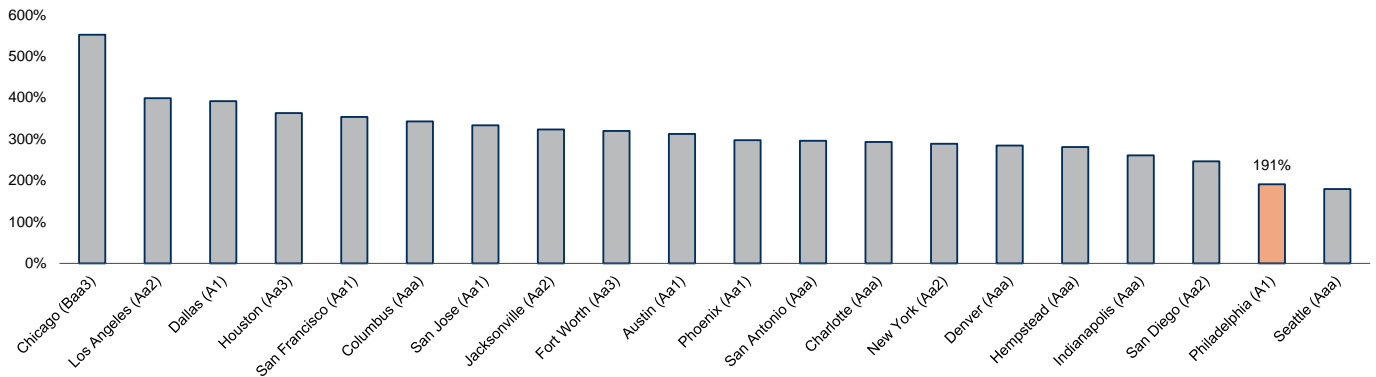


*Source: Moody's Ratings*

There are three primary components to our leverage metric: debt, pensions, and other post-employment benefits (OPEB). Philadelphia's leverage is modest on all three counts.

Exhibit 14
**Philadelphia's leverage is modest**
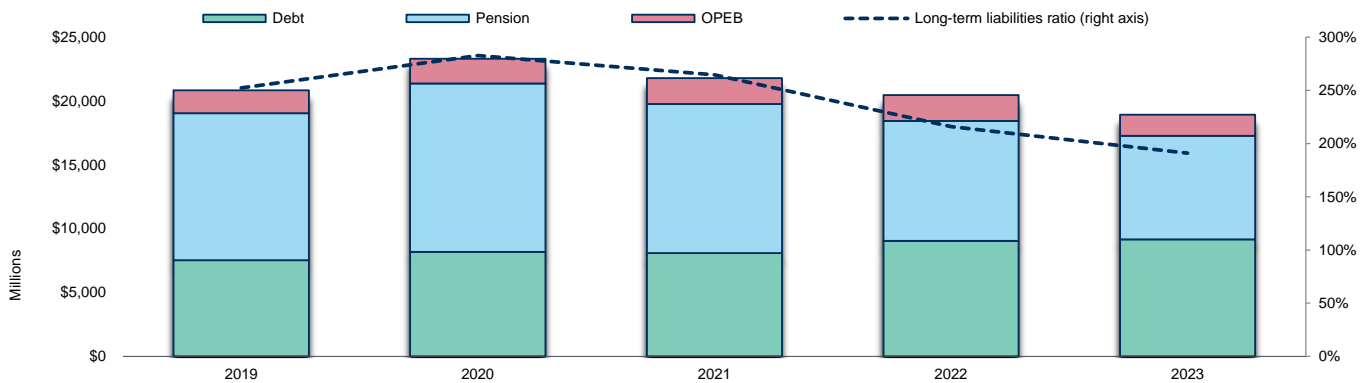


Pension and OPEB liabilities are Moody's-adjusted and shown on a net basis.
*Source: Moody's Ratings*

**Debt**

Philadelphia's debt totals $9.16 billion, or a moderate 88% of revenue. The debt is split roughly evenly between governmental debt and enterprise debt (for the water and sewer utility and the airport).

Exhibit 15
**Philly's debt portfolio**
$ in millions

| Type of debt | 6/30/2023 | Rating |
|---|---|---|
| Water and sewer bonds | $2,701 | A1 |
| General obligation bonds | $1,865 | A1 |
| Airport bonds | $1,493 | A2 |
| Service agreement bonds | $1,410 | A1 |
| Capital lease | $640 | Unrated |
| Stadium lease | $167 | A1 |
| Airport commercial paper | $165 | Unrated* |
| HUD Section 108 loan | $48 | Unrated |
| Water and sewer commercial paper | $36 | Unrated* |
| **Total (excluding bond premium)** | **$8,524** | |

Included in our debt figure but not in the above table is $635 million of bond premium. The commercial paper is unrated but we have bank bond ratings equivalent to the ratings of the respective utility.
*Source: Philadelphia, Moody's Ratings*

Philadelphia has significant infrastructure investment needs, and its proposed six-year capital program totals $16.2 billion. While federal and state grants will fund a significant portion of this, the program implies some increase in debt going forward, though not substantially so as the city's debt amortizes rapidly. Philadelphia's modest debt is therefore likely to remain a strength relative to peers.

**Pensions and OPEB**

Philadelphia's pension liability is attributable to the city's Municipal Pension Fund, a single-employer defined-benefit plan. The city's commitment to funding this plan has resulted in a Moody's-adjusted net pension liability that is unusually low for a big city. Of the 20 biggest cities, only four besides Philadelphia have a Moody's-adjusted net pension liability lower than 100% – and all four are rated Aaa.

Exhibit 16
**Philadelphia pension statistics**

| Actuarially reported | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Gross liability | $11,521,772 | $11,781,206 | $12,034,845 | $12,265,116 | $12,551,953 |
| Pension assets | $5,566,397 | $5,685,321 | $7,313,497 | $6,878,697 | $7,747,327 |
| **Net liability** | **$5,955,375** | **$6,095,885** | **$4,721,348** | **$5,386,419** | **$4,804,626** |
| Moody's-adjusted | 2019 | 2020 | 2021 | 2022 | 2023 |
| Gross liability | $17,074,541 | $18,884,192 | $18,992,488 | $16,260,130 | $15,853,520 |
| Pension assets | $5,566,397 | $5,685,321 | $7,313,497 | $6,878,697 | $7,747,327 |
| **Net liability** | **$11,508,144** | **$13,198,871** | **$11,678,991** | **$9,381,433** | **$8,106,193** |
| % of revenue | 135% | 154% | 135% | 94% | 77% |
| Tread water indicator | $541,581 | $529,036 | $536,288 | $431,511 | $469,491 |
| Actual contribution | $780,697 | $755,751 | $776,644 | $852,213 | $1,155,908 |

*Source: Philadelphia, Moody's Ratings*

It is worth highlighting Philadelphia's strong commitment to funding this plan, including by devoting sales tax to the plan in addition to its regular contribution. Our tread water indicator shows the pension contribution that would be required to prevent the reported net pension liability from growing, assuming all actuarial assumptions are met. Philadelphia's pension contribution in 2023 is well more than double this indicator.

The city's OPEB liability is modest, at just 16% of revenue, another strength for the city in the leverage category.

## ESG considerations

### Philadelphia (City of) PA's ESG credit impact score is CIS-2

Exhibit 17
**ESG credit impact score**
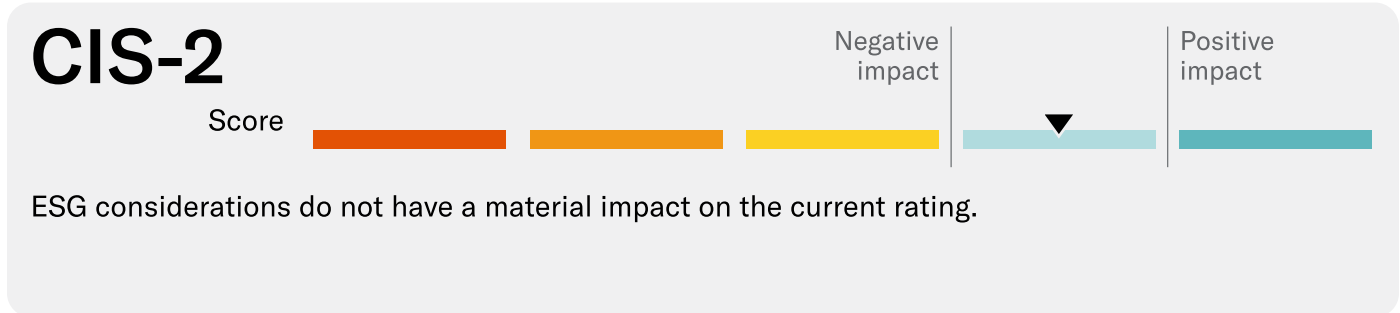


*Source: Moody's Ratings*

Philadelphia's ESG Credit Impact Score is CIS 2 reflecting neutral to low negative exposure to social and environmental risks, and a very strong overall governance profile, tempered by a rather weak institutional framework. These factors, as well as the city's solid tax base growth and improving financials over the past decade, inform the city's rating.

Exhibit 18
**ESG issuer profile scores**
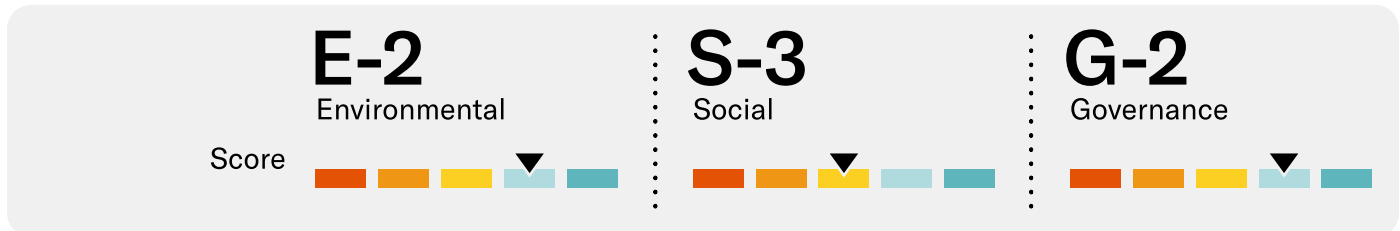


*Source: Moody's Ratings*

### Environmental
Philadelphia's overall E issuer profile score is **E-2**, reflecting relatively low exposure to environmental risks across most categories, including physical climate risk, carbon transition, natural resources management, waste and pollution.

### Social
The city's S issuer profile score is **S-3**, reflecting moderate exposure across most categories including demographics, education, housing, and access to basic services. The city faces challenges associated with high resident poverty and relatively modest resident wealth, which impacts the city's infrastructure needs as well as its revenue structure. The city has also grappled with increased gun violence over the past several years and its health and safety score is thus moderately negative.

### Governance
Philadelphia's solid governance profile supports its rating as captured by a neutral G issuer profile score (**G-2**). This reflects the city's very strong credibility and effectiveness as well as its excellent transparency and disclosure. Actual financial performance has been invariably favorable to budget projections in the city's recent history, and though the city was hard-hit by the effects of the coronavirus pandemic, proactive budget adjustments were made to address revenue shortfalls. Given the historic slimness of the city's reserves, its budget management score is neutral. These governance strengths are somewhat offset by a neutral institutional structure, due primarily to the city's reliance on economically sensitive revenue streams, offset by strong governance provided by PICA. The city produces long range financial forecasts and capital plans and updates budget projections quarterly.

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 US Cities and Counties Methodology includes a scorecard, which summarizes the rating factors generally most important to city and county credit profiles. Because the scorecard is a summary, and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned. The below scorecard includes certain pro forma estimates based on unaudited information for fiscal 2024, and our official scorecard based on the 2024 audit when it's released will not exactly match the below.

Exhibit 19
**Philadelphia (City of) PA**

|  | Measure | Weight | Score |
|---|---|---|---|
| **Economy** | | | |
| Resident income ratio | 76.0% | 10.0% | Baa |
| Full value per capita | 86,723 | 10.0% | A |
| Economic growth metric | -1.5% | 10.0% | A |
| **Financial Performance** | | | |
| Available fund balance ratio | 13.4% | 20.0% | Baa |
| Liquidity ratio | 40.8% | 10.0% | Aaa |
| **Institutional Framework** | | | |
| Institutional Framework | Aa | 10.0% | Aa |
| **Leverage** | | | |
| Long-term liabilities ratio | 192% | 20.0% | Aa |
| Fixed-costs ratio | 11.9% | 10.0% | Aa |
| **Notching factors** | | | |
| No notchings applied | | | |
| Scorecard-Indicated Outcome | | | A1 |
| **Assigned Rating** | | | **A1** |

The Economic Growth metric cited above compares the five-year CAGR of real GDP for Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area Metropolitan Statistical Area to the five-year CAGR of real GDP for the US.
*Sources: US Census Bureau, Philadelphia (City of) PA's financial statements and Moody's Ratings*

# Appendix

Exhibit 20
## Key Indicators Glossary

| | Definition | Typical Source* |
|---|---|---|
| **Economy** | | |
| Resident income ratio | Median Household Income (MHI) for the city or county, adjusted for Regional Price Parity (RPP), as a % of the US MHI | MHI: US Census Bureau - American Community Survey 5-Year Estimates RPP: US Bureau of Economic Analysis |
| Full value | Estimated market value of taxable property in the city or county | State repositories; audited financial statements; continuing disclosures |
| Population | Population of the city or county | US Census Bureau - American Community Survey 5-Year Estimates |
| Full value per capita | Full value / population | |
| Economic growth metric | Five year CAGR of real GDP for Metropolitan Statistical Area or county minus the five-year CAGR of real GDP for the US | Real GDP: US Bureau of Economic Analysis |
| **Financial performance** | | |
| Revenue | Sum of revenue from total governmental funds, operating and non-operating revenue from total business-type activities, and non-operating revenue from internal services funds, excluding transfers and one-time revenue, e.g., bond proceeds or capital contributions | Audited financial statements |
| Available fund balance | Sum of all fund balances that are classified as unassigned, assigned or committed in the total governmental funds, plus unrestricted current assets minus current liabilities from the city's or county's business-type activities and internal services funds | Audited financial statements |
| Net unrestricted cash | Sum of unrestricted cash in governmental activities, business type activities and internal services fund, net of short-term debt | Audited financial statements |
| Available fund balance ratio | Available fund balance (including net current assets from business-type activities and internal services funds) / Revenue | |
| Liquidity ratio | Net unrestricted cash / Revenue | |
| **Leverage** | | |
| Debt | Outstanding long-term bonds and all other forms of long-term debt across the governmental and business-type activities, including debt of another entity for which it has provided a guarantee disclosed in its financial statements | Audited financial statements; official statements |
| Adjusted net pension liabilities (ANPL) | Total primary government's pension liabilities adjusted by Moody's to standardize the discount rate used to compute the present value of accrued benefits | Audited financial statements; Moody's Ratings |
| Adjusted net OPEB liabilities (ANOL) | Total primary government's net other post-employment benefit (OPEB) liabilities adjusted by Moody's to standardize the discount rate used to compute the present value of accrued benefits | Audited financial statements; Moody's Ratings |
| Other long-term liabilities (OLTL) | Miscellaneous long-term liabilities reported under the governmental and business-type activities entries | Audited financial statements |
| Long-term liabilities ratio | Debt + ANPL + ANOL + OLTL / Revenue | |
| **Fixed costs** | | |
| Implied debt service | Annual cost to amortize city or county's long-term debt over 20 years with level payments | Audited financial statements; official statements; Moody's Ratings |
| Pension tread water contribution | Pension contribution necessary to prevent reported unfunded pension liabilities from growing, year over year, in nominal dollars, if all actuarial assumptions are met | Audited financial statements; Moody's Ratings |
| OPEB contribution | City or county's actual contribution in a given period | Audited financial statements |
| Implied cost of OLTL | Annual cost to amortize city or county's other long-term liabilities over 20 years with level payments | Audited financial statements; Moody's Ratings |
| Fixed-costs ratio | Implied debt service + Pension tread water + OPEB contributions + Implied cost of OLTL / Revenue | |

*Note: If typical data source is not available then alternative sources or proxy data may be considered. For more detailed definitions of the metrics listed above please refer to the US Cities and Counties Methodology .
Source: Moody's Ratings

# Endnotes

1   This refers to the budgetary basis general fund balance, which differs from our available fund balance calculation.

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## CLIENT SERVICES

| | |
|---|---|
| Americas | 1-212-553-1653 |
| Asia Pacific | 852-3551-3077 |
| Japan | 81-3-5408-4100 |
| EMEA | 44-20-7772-5454 |