MOODY'S INVESTORS SERVICE

CREDIT OPINION
21 December 2015

New Issue

Rate this Research

Contacts

Jennifer Diercksen 212-553-4346
AVP-Analyst MIS
jennifer.diercksen@moodys.com

Dan Seymour, CFA 212-553-4871
Assistant Vice President - Analyst
dan.seymour@moodys.com

Philadelphia, PA

New Issue - Moody's assigns A2 to Philadelphia (PA)'s $60M PAID Revenue Bonds, 2016A & B

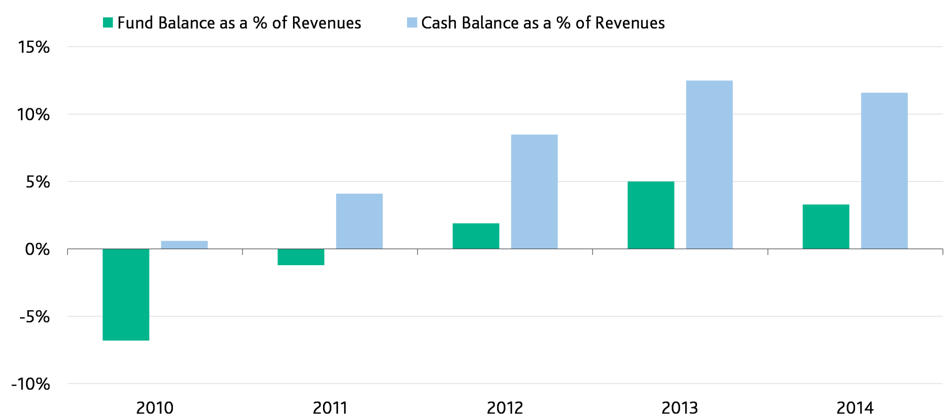
Summary Rating Rationale

Moody's Investors Service has assigned an A2 rating to the Philadelphia Authority for Industrial Development, PA's $53.6 million City Agreement Revenue Refunding Bonds, Cultural and Commercial Corridors Program), Series 2016A and $6 million City Agreement Revenue Refunding Bonds (Philadelphia Central Library Project), Series 2016B.Concurrently, Moody's affirms the A2 rating on the city's $1.5 billion of outstanding General Obligation and $2.3 billion of outstanding service fee debt.

The A2 rating reflects the city's large tax base, and its position as a regional economic center anchored by a significant nonprofit institutional presence and a number of major corporations and other large employers. The rating also incorporates the city's heavy debt burden, high fixed costs, and below-average financial position, which has historically been pressured because of reliance on economically sensitive revenues.

Exhibit 1

Despite Improvement in Recent Years, Philadelphia's Financial Position Remains Below-Average



Source: Moody's Investors Service and Philadelphia, PA's Comprehensive Annual Financial Reports (2010-2014)

Credit Strengths

» Regional economic center with major institutional presence

» Comprehensive long-term financial planning

» Recent trend of improving revenues

» Reversal of historical contraction in the tax base and loss of population

Credit Challenges

» Below-average socioeconomic characteristics

» Weaker-than-average reserve levels

» Exposure to economically sensitive revenues

» Heavy unfunded pension liabilities

» Large debt burden

Rating Outlook

The stable outlook reflects the stabilized trends in most of the city's important tax revenues, driven by a growing economy and tax base. Many of the weak socioeconomic characteristics of the city - such as a high poverty rate and low income levels - have shown more positive trends in recent years. Although the city faces numerous challenges in the long term, including large unfunded pension liabilities and other benefit costs, potential need to increase funding to support the Philadelphia School District (Ba3 negative), and an upcoming change in administration beginning January 2016, comprehensive financial planning and a generally strengthening tax base will keep the city's credit profile stable.

Factors that Could Lead to an Upgrade

» Continued growth in the tax base and strengthening of the socioeconomic profile

» Expansion of reserves to levels consistent with higher rating categories

» Substantial decrease of unfunded pension liabilities

Factors that Could Lead to a Downgrade

» Resumption of tax base declines

» Continued draws on reserves including a larger than anticipated decline in fiscal 2015 and 2016

» Increased support to school district reducting city's financial flexibility

» Significant changes in management that would negatively impact the city's credit profile

» Failure to fund pension plan on sound basis going forward

Key Indicators

Exhibit 3
Philadelphia (City of) PA

Philadelphia (City of) PA	2010	2011	2012	2013	2014
Economy/Tax Base					
Total Full Value ($000)	$ 61,893,886	$ 63,035,840	$ 58,895,425	$ 56,815,600	$ 95,887,424
Full Value Per Capita ($000)	40,001	41,308	38,279	36,712	61,737
Median Family Income (% of US Median)	72.4%	71.8%	71.9%	71.7%	71.7%
Finances					
Operating Revenue ($000)	3,722,263	3,915,801	3,637,602	3,741,603	3,854,529
Fund Balance as a % of Revenues	-6.8%	-1.2%	1.9%	5.0%	3.3%
Cash Balance as a % of Revenues	0.6%	4.1%	8.5%	12.5%	11.6%
Debt/Pensions					
Net Direct Debt ($000)	4,258,700	4,285,598	4,132,800	4,236,900	4,204,600
Net Direct Debt / Operating Revenues (x)	1.1x	1.1x	1.1x	1.1x	1.1x
Net Direct Debt / Full Value (%)	6.9%	6.8%	7.0%	7.5%	4.4%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	N/A	1.9x	2.1x	2.1x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	N/A	11.7%	13.9%	8.5%

Source: Moody's Investors Service

Recent Developments

Based on unaudited figures, the city expects to finish fiscal 2015 with a $58.8 million decline in General Fund balance, which is on par with what we had expected in our September 2015 report. While the city had initially appropriated $78 million, conservative budgeting of expenditures, along with positive revenue performance of real estate and wage taxes helped to offset this planned use of reserves.

The fiscal 2016 budget represents a 4.1% increase from the previous year and includes $70.1 million in appropriated fund balance. Based on preliminary estimates, the city expects to end fiscal 2016 with a General Fund balance of $82.2 million or 2.1% of General Fund revenues. While fund balance is expected to decline overall, projected year-end reserves are $12.9 million above the General Fund balance estimate included in the fiscal 2016 budget and the city's five-year financial plan. This positive variance is primarily attributable to better-than-anticipated results in fiscal 2015 due to conservative budgeting, as well as revised budget estimates for fiscal 2016. Revenues are currently trending ahead of budget due to positive performance of real estate and sales taxes, while expenditures are over budget primarily due to costs incurred during the papal visit.

Going forward, we will continue to monitor the city's ability to maintain adequate reserves for the current rating category. Any deviation from the fiscal 2015 or 2016 projections, or additional use of reserves in fiscal 2017 could result in negative credit pressure.

Detailed Rating Considerations

Economy and Tax Base: Large Economic Center Continues to Grow

Philadelphia is the economic center of a large, multi-state region, and the tax base has begun to grow after decades of decline. With a population of roughly 1.6 million, Philadelphia is the fifth-largest city in the US by population, and is at the center of the sixth-largest metropolitan area. The city underwent a protracted decline in the post-industrial era, with population falling 26% since 1950. The city's socioeconomic profile is weak: poverty is among the highest of any large US city at 26.5%, the median family income is equal to 71.7% of the US median, and unemployment, at 6.8% as of September 2015, was higher than the US rate of 4.9%.

However, the past half-decade has shown more positive trends for the $95.9 billion tax base. The population is growing and getting better-educated, and personal income has increased 21% since 2009. We attribute the city's growth to national demographic trends, as well as the appeal of the city's substantial mix of universities, hospitals, and other employers. Of the 10 biggest employers in the city, nine are either higher education or healthcare entities, most prominently the University of Pennsylvania (Aa2 positive) and the University of Pennsylvania Health System (Aa3 stable). The city is home to about 30 hospitals, including Thomas Jefferson University Hospital and the Children's Hospital of Philadelphia (Aa2 stable).

The city's strong nonprofit sector provides some underlying strength to the economy that is not reflected in tax base valuation or socioeconomic statistics. Approximately 27% of the city's base is exempt from property taxes. An estimated 155,000 college students live in Philadelphia, and about 295,000 people commute into the city daily. The traditional measures of tax base strength understate the city's economic resilience, although persistent poverty and weak income indices remain a challenge. Despite the economic improvement, the tax base will remain challenged to continue growing at the current pace in the long term.

Financial Operations and Reserves: Volatile Revenue Composition; Historically Narrow Reserves

The city's mix of economically sensitive and volatile revenues will remain a challenge, particularly as it holds general fund reserves below the level of most peers. The city's $3.9 billion general fund budget is funded primarily by a wage tax (46% of revenues, including taxes pledged to Pennsylvania Intergovernmental Cooperation Authority bonds), a property tax (14% of revenues), business income and receipts taxes (11%), a real estate transfer tax (6%), and a sales tax (4%). Other than property taxes, the city's tax revenues are highly susceptible to economic downturns, and have pressured the city's finances in previous recessions.

The economic recovery of the past few years has increased tax receipts and helped the city's finances recover: the general fund balance rose from a low of negative 3.5% in 2010 to a six-year high of 7.7% in 2013. Favorably, the city has shown a willingness to increase property taxes to balance its budget, raising the levy by 10% in 2011. It also reduced staff by more than 1,500, negotiated higher pension contributions and changed in benefits from collective bargaining groups.

The city ran a deficit of roughly $70 million in 2014, largely due to an appropriation of its fund balance that was not fully replenished. The fund balance, at 5.6%, is below levels of most other cities, and remains a key risk for the city in light of the sensitivity of its revenues to economic downturns.

Based on unaudited figures, the city expects to end fiscal 2015 with a $58.8 million decline in General Fund balance. While the city had appropriated $78 million of fund balance into the budget, conservative budgeting of expenditures, particularly related to personnel costs, and the positive revenue performance of real estate and wage taxes, were the primary drivers in helping to mitigate the use of reserves. The city did experience an unexpected underperformance of the business income and receipts tax that management reports is due to an accounting change related to legislation that was adopted in 2005 and as well as additional legislation enacted to lower the tax rate between fiscal 2014 and 2020.

The city's fiscal 2016 budget represents a 4.1% increase from the previous year and includes $70.1 million in appropriated fund balance. The budget-to-budget growth reflects increases in personnel-related costs, as well as a $35 million increase in funding to the school district that is supported by new property and parking taxes. Based on preliminary estimates, the city expects to end fiscal 2016 with a General Fund balance of $82.2 million (2.1% of General Fund revenues), approximately $12.9 million above original estimates included in the fiscal 2016 budget and the city's five-year financial projections (2016-2020). Year-end reserves are tracking higher than initially budgeted due to positive performance in fiscal 2015 that was driven by the city's consistently conservative estimates, as well as revised budget estimates for fiscal 2016. Revenues are currently trending ahead of budget due to positive performance of real estate and sales taxes, while expenditures are over budget primarily due to costs incurred during the papal visit.

Going forward, the city's five-year plan shows another draw in fiscal 2017 before reserves begin to rebound again through fiscal 2020. The upcoming rebounding of reserves is attributable to further tax base growth, somewhat offset by a continued reduction in wage tax rate. It should be noted that the five-year plan does not include any labor cost growth after contracts expire in the 2016/2017 time frame, which could further limit financial flexibility, and does not necessarily reflect the views of the new management team that will begin serving in January 2016. Any inability to meet fiscal 2015 or 2016 projections, as well as additional draws on reserves in fiscal 2017 could lead to negative credit pressure.

Ultimately, we believe the city's conservative budgeting, comprehensive long-term financial planning, and efforts to contain costs will contribute to the maintenance of adequate reserves and ongoing stability. The city is under oversight from the state-appointed Pennsylvania Intergovernmental Cooperation Authority (PICA), which continues to monitor and help stabilize the city's financial operations.

LIQUIDITY

The city's liquidity at the end of fiscal 2014 (year ended 6/30/2014) was solid at roughly 12% of revenues. The intra-year low point in cash (net of cash flow notes) is usually March, due to a large pension payment. In 2014, the net cash low was roughly $100 million, which is about 2.5% of revenues. This marks a substantial improvement from five years ago, when net cash balances were frequently negative.

The city issued Tax and Revenue Anticipation Notes at the beginning of the fiscal year. The city's reliance on TRANs has declined significantly as its cash balances have improved; the 2016 TRAN issuance of $175 million (4.6% of revenues) was well below the 2009 issuance of $350 million (9.7% of revenues).

Debt and Pensions: Heavy Debt and Pension Liabilities; Moderate Variable Rate Exposure

The city's debt and pension liabilities are heavy and will remain a drag on its credit profile for the long term. The city's tax-supported debt totals roughly $4.3 billion (post-sale), equal to 4.5% of full value, climbing to 7.9% when overlapping debts are included, well above the state and national averages. The city's high debt burden reflects its dual city and county responsibilities, special efforts to promote economic development, the PICA deficit bonds ($316 million), and $1.3 billion in pension obligation bonds. Debt will remain heavy as it amortizes slowly (48.9% of principal is scheduled to be repaid in 10 years), and the city has material capital reinvestment needs that will be largely funded by debt.

DEBT STRUCTURE

The city has moderate variable rate exposure representing approximately 5% of its total debt obligations. The city's Series 2009B variable rate bonds are supported by a letter of credit (LOC) from the Bank of New York Mellon (Aa1 stable) that expires in June 2016. The city also has exposure to variable rate debt through the Philadelphia Authority for Industrial Development's (PAID) Series 2007B bonds. Liquidity is provided by LOCs from two providers, TD Bank, N.A. (Aa1 stable) for $72.4 million, and PNC Bank, N.A. (Aa2 stable) for $44.6 million. The PNC LOC expires in May 2017, while the TD Bank LOC expires in May 2019.

DEBT-RELATED DERIVATIVES

In conjunction with the Series 2009B variable rate issuance, the city is party to a fixed payer swap with Royal Bank of Canada (Aa3 negative) for a notional amount of $100 million. As for the PAID variable rate bonds, the city has entered into two fixed payer interest rate swaps, one with JPMorgan Chase Bank NA (Aa2 stable) for a notional amount of $87.8 million and one with Merrill Lynch Capital Services, Inc. (MLCS) for a notional amount of $29.2 million. In the case of all three of its fixed payer swaps, the city (either directly or through PAID) makes semi-annual payments based on a fixed rate and the counterparties make monthly payments based on the SIFMA Municipal Swap Index.

In addition, the city has two fixed payer swaps associated with the Series 2014A bonds issued through PAID. One is with JP Morgan Chase for a notional amount of $88 million, while the other is with MLCS with a notional amount of $29.3 million. The issuer makes semi-annual payments based on a fixed rate and the counterparties make monthly payments based on 70% of the one-month LIBOR.

The city is also a party to a basis swap, through PAID, with MLCS for a notional amount of $193.5 million. Under the swap, the city makes payments based on SIFMA and receives payments based on 67% of one-month LIBOR plus 20 basis points.

In the case of all of the swaps, regularly scheduled payments are General Fund obligations of the city. Early termination is optional for the city only. Termination events include either the city or the counterparty's rating falling below Baa3. Any termination payment by the city would be subordinate to the general obligation debt service payments. The total value of the swaps was approximately negative $76.3 million as of November 2015.

PENSIONS AND OPEB

The city operates one defined-benefit plan: the City of Philadelphia Public Employees Retirement System (not including the pension plan for the Philadelphia Gas Works). It is a mature plan that has roughly 65,000 members, 27,000 active employees and 38,000 retirees. As a result, aggregate contributions into the plan are less than the amount of benefits payable in any given year, resulting in a higher reliance on investment income to make up the difference. Favorably, the city has reduced its assumed rate of return on its pension plan, to 7.8% (2015) from 8.75% (2005), and increased employee contributions under current union contracts.

The city's minimum municipal obligation (MMO) for the plan was $523.4 million (13.2% of operating expenditures), of which the city contributed $566 million (14.3% of operating revenues) in fiscal 2014. The MMO is expected to increase 15.1% through fiscal 2020, but the city is planning to at least fully fund this requirement under its current five-year plan. On an actuarial basis, the plan had $4.8 billion of assets and $10.5 billion of liabilities as of the 2014 actuarial valuation, for a funded ratio of 45.8%.

The city's adjusted net pension liability, under Moody's methodology for adjusting reported pension data, is $8.1 billion, or an above-average 2.11 times Operating Fund revenues, as of 2014. Moody's uses the adjusted net pension liability to improve comparability of reported pension liabilities. The adjustments are not intended to replace the county's reported liability information, but to improve comparability with other rated entities.

The city also provides Other Post-Employment Benefits (OPEB) to employees. The ARC for the city's OPEB totaled $128.6 million (3.3% of operating expenditures), to which the city contributed $67.1 million (1.7% of operating expenditures) in fiscal 2014. Fixed costs including annual pension, OPEB and debt service expenditures summed to a moderate 22.1% of fiscal 2014 expenditures.

Management and Governance

Pennsylvania cities have an institutional framework score of Aa, or strong. Philadelphia enjoys the authority to adjust the property tax millage without limitation. While many cities rely on economically sensitive revenues such as income taxes, they have the authority to increase property taxes to offset any declines in these revenues. Organized labor does have a strong presence in the state, and state labor law gives bargaining groups significant leeway to seek arbitration. Most cities have been challenged to control and predict labor costs.

The city is under oversight of a state board, PICA, which requires an approved five-year plan. The city has demonstrated a willingness to increase property taxes and cut costs, as well as decrease its assumed rate of return on its pension fund at a budgetary cost and negotiate pension and healthcare contributions from labor groups.

Legal Security

The city's GO bonds are secured by the city's General Obligation unlimited tax pledge.

We currently rate Philadelphia's service fee bonds, including the current issuance, the same as its direct General Obligation bonds. The contractual requirement to appropriate service fees is unconditional and renders them in the same band of credit quality as an ad valorem pledge.

Use of Proceed

The Series 2016A bond will be used to refund the Series 2006A bonds for an estimated net present value savings of $6 million, or 10.3% of refunded principal, with no extension of maturity.

The Series 2016B bonds will be used to refund the Series 2005 bonds for an estimated net present value savings of $561,245, or 8.4% of refunded principal, with no extension of maturity.

Obligor Profile

Philadelphia is the fifth-largest city in the US, with a population over 1.6 million. The city has a General Fund budget of $3.9 billion, and $4.3 billion of tax-supported debt outstanding post-sale.

Methodology

The principal methodology used in this rating was US Local Government General Obligation Debt published in January 2014. Please see the Credit Policy page on www.moodys.com for a copy of this methodology.

Ratings

Exhibit 4

PHILADELPHIA AUTHORITY FOR INDUSTRIAL DEVELOPMENT, PA

Issue	Rating
City Agreement Revenue Refunding Bonds (Philadelphia Central Library Project), Series 2016B	A2
Rating Type	Underlying LT
Sale Amount	$6,005,000
Expected Sale Date	01/12/2016
Rating Description	General Obligation

City Agreement Revenue Refunding Bonds (Cultural and Commercial Corridors Program), Series 2016A	A2
Rating Type	Underlying LT
Sale Amount	$53,545,000
Expected Sale Date	01/12/2016
Rating Description	General Obligation

Source: Moody's Investors Service

REPORT NUMBER 1011296

Contacts

Jennifer Diercksen 212-553-4346
AVP-Analyst
jennifer.diercksen@moodys.com

Dan Seymour, CFA 212-553-4871
Assistant Vice President - Analyst
dan.seymour@moodys.com

CLIENT SERVICES

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

MOODY'S
INVESTORS SERVICE