City Council of Philadelphia

8.17.2017

Financial Condition Analysis:

Comparing Philadelphia to 13 other Major Municipalities, using the most recent Comprehensive Annual Financial Reports (CAFRs)

Financial Condition Analysis Comparing Philadelphia to 13 other Major Municipalities, using the most recent Comprehensive Annual Financial Reports (CAFR)

Executive Summary

Each year, major cities and local governments, including Philadelphia, release a Comprehensive Annual Report (CAFR), which details the financial conditions of the municipality at the end of the fiscal year. CAFRs are prepared under the rules and principles set forth by the Government Accounting Standards Board (GASB). Since CAFRs are prepared under the same guiding principles, they constitute a good resource to meaningfully compare municipalities' top level fiscal positions with one another. The following comparative analysis, produced by Council's Budget and Finance Team, looks at the various financial metrics and ratios of 13 other major municipalities for the purpose of seeing how Philadelphia is performing relative to its peers.[1]

The comparative analysis is broken into several sections. The first section examines financial ratios, and more specifically, what credit rating agencies look for when assessing municipalities. The second section examines the performance of Philadelphia – from a financial perspective – over the past three years, using ratio analysis – or an analysis of key financial and economic metrics. The third section is titled "Five Point CAFR Analysis, and examines Philadelphia through a more detailed, ratio analysis lens, relative to other major cities. Included in the Five Point Analysis is an examination of the following: (1) *economic condition*, or the ability and willingness of a government to meet its obligations by examining General Fund balances and other economic condition variables, (2) *fiscal condition*, or how a city is situated overall by examining Net Position, and variations from, or changes in, Net Position, (3) *liquidity*, or how each city's assets translate to an ability to meet its short-term obligations, (4) *solvency*, or how much of a city's long-term liabilities could be covered with its assets, and (5) *risk exposure*, which looks at how structurally dependent a city is on state and federal funding for general fund obligations.

Summary Median and Average City CAFR Analysis (Compared to Philadelphia)

	Economic Condition		Fiscal Condition			Liquidity		Solvency		Risk Exposure	
	Median Income	Net Population Growth 2010-2016	Net Position	Change in Net Position as a % of Primary Govt. Revenues	Change in Net Position	Quick Ratio	Current Ratio	Total Liabilities / Total Assets	Days of General Fund Expenditures on Hand	Non-Local Revenue as % of Total Revenue	Property Tax Collection Rate: Net Collected in Calendar Year
Philadelphia: FY16 CAFR	$ 38,253	$ 41,866	$ (4,629,300,000)	1.07%	$ 80,532,000	0.53	1.77	141%	13	8%	91%
Average of Observed Cities	$ 49,153	96,016	$ (12,893,599,076)	2.74%	$ (333,229,770)	2.01	3.63	104%	82	13%	96%
Median of Observed Cities	$ 47,527	58,835	$ (95,036,000)	3.46%	$ 81,595,000	1.67	2.96	100%	80	11%	98%

Figure 1 [2345]

[1] The 13 other cities included in the analysis are: *(1) Atlanta, GA, (2) Baltimore, MD, (3) Boston, MA, (4) Chicago, IL, (5) Cleveland, OH, (6) Dallas, TX, (7) Houston, TX, (8) Jacksonville, FL, (9) Los Angeles, CA, (10) Miami, FL, (11) New York, NY, (12) San Diego, CA, and (13) San Francisco, CA.*

[2] Days of General Fund Expenditures on Hand and Non-Local Revenue as a % of Total Revenue were calculated on a Budgetary basis (not a GAAP basis).

[3] New York City is not included in any averages or medians related to fund balances. Laws of the State of New York discourages the city from large amounts of funds in reserve, instead opting to pre-pay future expenses.

[4] New York City is excluded from Net Population Growth.

[5] Net Position includes deferred inflows and outflows of resources.

Understanding how these ratios influence one another is important in understanding the impacts of changes in fiscal policy. For example, Philadelphia's *liquidity* ratios – "Quick" and "Current" ratios – are below the average of the observed cities. This low liquidity is also highlighted in our below-average unrestricted fund balances. As seen in Figure 1, at the end of FY16, the City had approximately 13 days of expenditures on hand (Fund Balance) in the General Fund. Generally, the Credit Rating agencies recommend having a fund balance of 60 days, or 17% of annual expenditures. Although Philadelphia should continue to focus on improving its *fiscal condition* by boosting its fund balance in the short-term, there are trade-offs that must be properly weighed to improve *economic condition* to support long term population and business growth. A few highlighted trade-offs (each of which leads to a lower fund balance) include: (1) the continual reduction of business and wage taxes through rate cuts, which have amounted to billions of dollars of forgone revenue over the past 20 years (wage tax cut by over 20%, BIRT rate cut by over 56%-- approximately two-thirds of business do not pay BIRT due to exclusion of the first $100,000 of gross receipts), (2) the commitment to adequately fund the School District of Philadelphia and, (3) the commitment to appropriate multi-million-dollar payments to the City's Pension fund above the Minimal Municipal Obligation (MMO). The City also uniquely offers an 100%, 10-year property tax abatement for new development, and offers over 20 business related tax incentives and credits.[6] These trade-offs have contributed to an environment of long-term growth and sustainability, but at the expense of short-term liquidity.

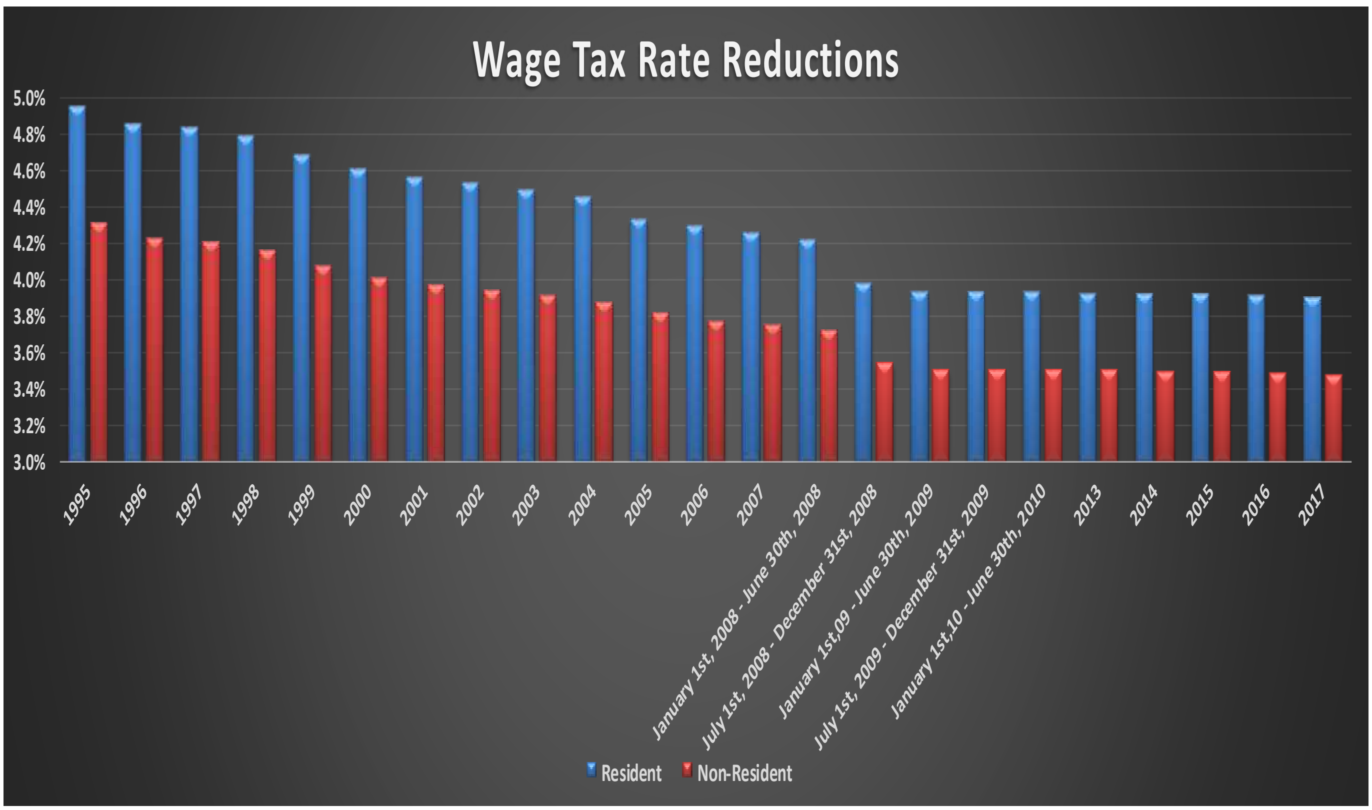
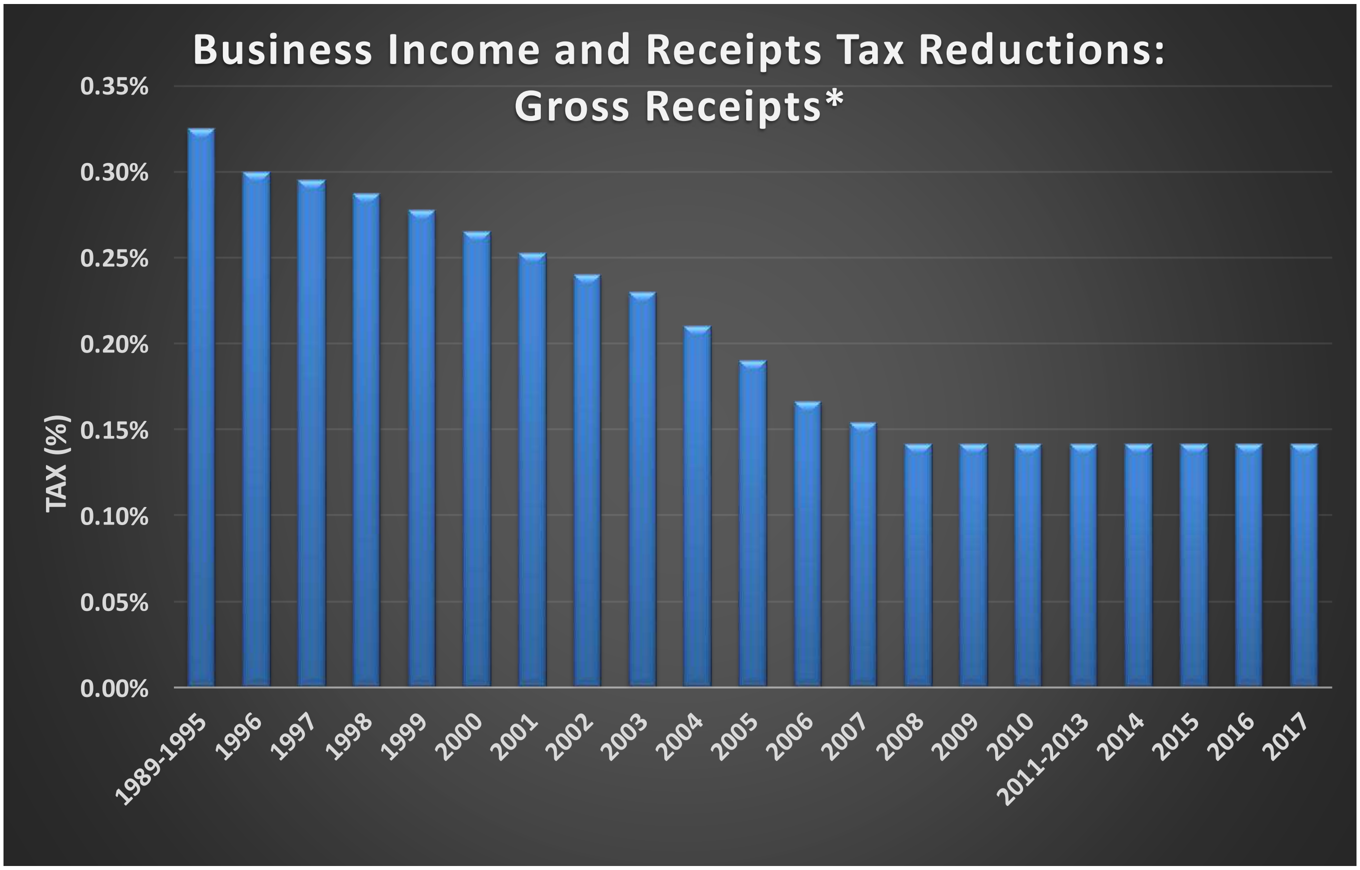


Figure 2

[6] PEW Charitable Trusts, "Philadelphia Business Taxes: Incentives and Exemptions" August 2016



**Exemption on first $50,000 of Gross Receipts started in 2014, followed by first $75,000 in 2015, and first $100,000 in 2016.*

Figure 3

In Moody's June 2017 rating, which reaffirmed an A2 rating with a negative outlook, Philadelphia's improving *economic condition* was noted as a positive, while *liquidity* and *fiscal condition* were negative credit pressures. The report states:

> "*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…Going forward, any additional declines in reserves beyond current projections, will result in negative credit pressure.*"[7]

Though fund balances have been trending downward in the last three fiscal years, it is important to note that the fund balances in the latest FY18-22 Five Year Plan do not reflect the projected $51 million to $58 million increase in annual revenue from property taxes, due to the reassessment of commercial properties.[8] This additional revenue adds approximately $275 million in reserves to the Five-Year Plan, and will be used to mitigate potential funding cut threats, including those that stem from uncertain Federal and State Budgets and pending Beverage Tax legislation. If funding cuts do not occur, the additional dollars could be used in a myriad of ways, including: (a) increasing the size of the fund balance, (b) providing additional funding to the Pension Fund above the required annual MMO payment, to further improve its Funding Ratio, (c) accelerating the reduction in business and/or wage taxes, and/or (d) providing additional funding for critically needed services.

---

[7] Moody's Rating Action 19 June 2017

[8] FY18-FY22 Five Year Financial Plan, Per Council Approved Budget.

Additionally, although the City has maintained lower-than ideal fund balances relative to peer cities, these low fund balances come as a result of continued tax reductions. The City has reduced business and wage taxes by 56% and 21%, respectively, over the past 20+ years in an effort to stimulate growth. In total, the City has forgone up to $6.4 billion in combined business and wage tax revenue from 1995 to 2016, as seen in *Figure 4*, below.[9] If the City had not enacted these reductions, significantly more revenue would likely have been raised annually, potentially strengthening our General Fund Balance. The chart includes the differing annual revenues based on different growth scenarios, with the baseline being the revenue actually collected by the City. The dashed lines show the amount of forgone revenue that would have been collected if the tax reductions contributed to the growth in Philadelphia's tax bases by 0%, 10%, and 25%. The top, red dashed line, indicates the revenue that the City *would have collected each year if tax rates were not reduced, and tax bases grew at the same rate as they actually did*. To use FY16 as an example, Philadelphia would have collected up to approximately $617 million in additional revenue for that year, if Philadelphia had reinstated 1995 tax rates.

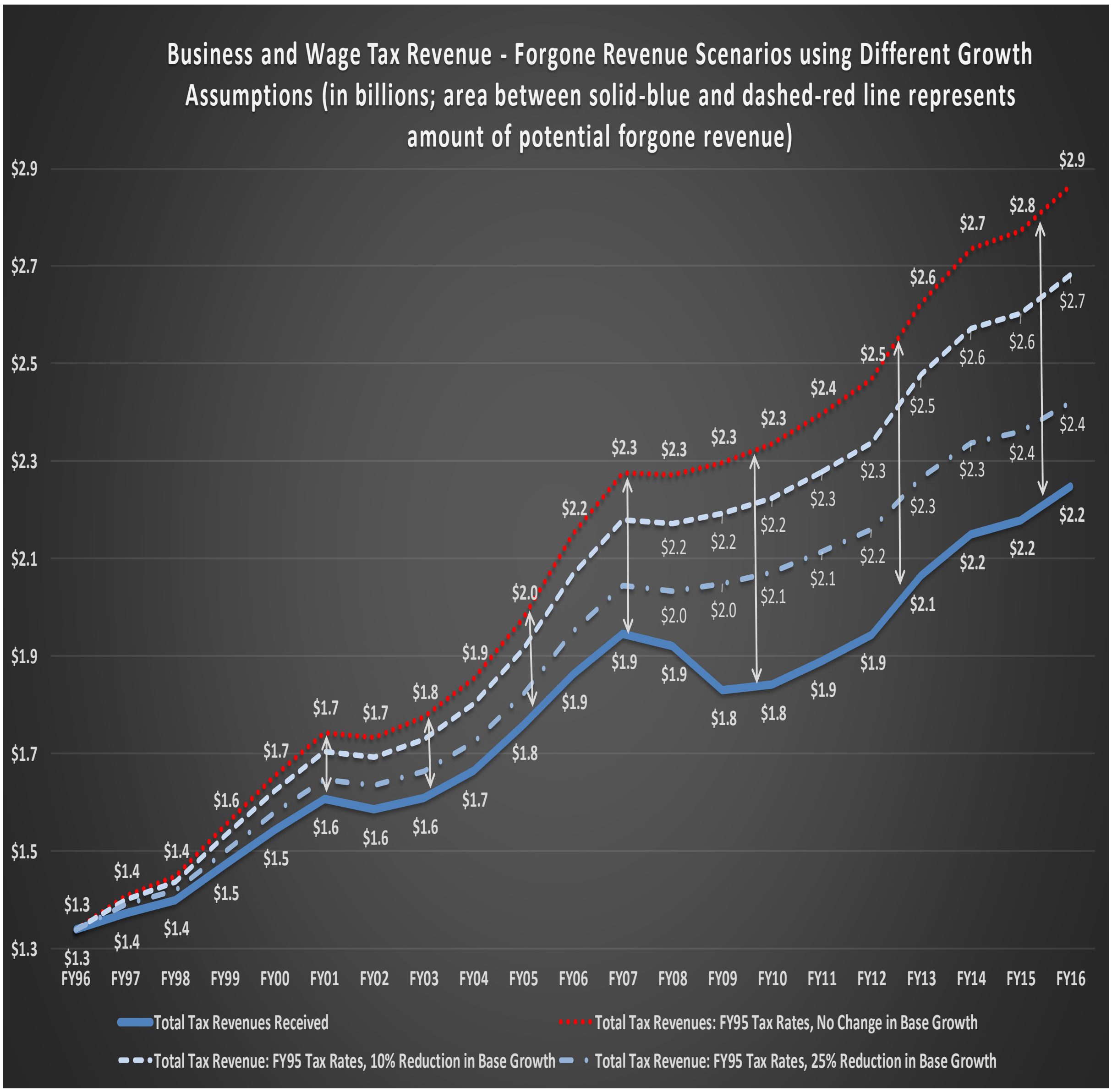


Figure 4

---

[9] BIRT (Gross Receipts and Net Income) and Wage Tax (Resident and Non-Resident) rates used for reduction percentage. Numbers were not adjusted for inflation.

It is safe to assume that the continued tax reductions have stimulated some level of growth and made Philadelphia a more enticing place to live, as evidenced by PEW's report, "The Shrinking Tax Gap Between Philadelphia and Its Suburbs."[10] As of 2015, the annual gap between taxes paid in the City and Suburbs for a home-owning, middle-income family, was only $390. In 2000, the average middle-income family in Philadelphia paid $2,410 more in taxes than a suburban family.[11] The shrinking tax gap arguably makes Philadelphia a more enticing and affordable place to live, attracting new residents as evidenced by our 41% growth in millennial population from 2006 to 2014.[12] As seen in *Figure 1*, Philadelphia added approximately 41,000 residents since 2010. Although this is below the observed average, the reversal of the decades long decline in our population, coupled with the increase in our median income, is a sign of our improving *economic condition.* Philadelphia has seen the fastest growth in millennial population among the ten largest cities[13], even as the metropolitan region loses millennial population.[14] The millennial growth in the region's core signals that Philadelphia has a unique advantage in culture and lifestyle over the surrounding suburbs. However, Philadelphia must capitalize on this growth in millennial population, to ensure that this debt-leveraged population can purchase homes and settle in the City. Despite the City having one of the largest growing millennial populations, it ranks 48th out of 100 in millennial home ownership, with student loans being a major barrier to entry.[15] It is critical that the City continue to focus not only on the tax burden of residency, but on the quality of services provided, including the quality of schools, and the availability of workforce housing as our millennial population begins to start families. If our growing population can put down roots through home ownership, it will solidify our growing tax base in the long term.

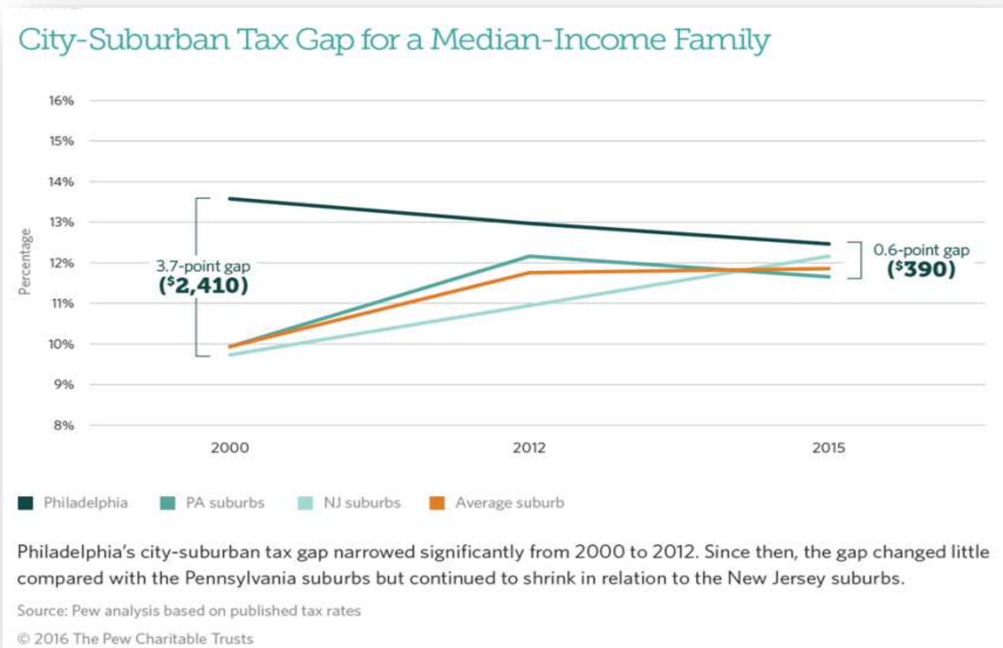


Figure 5

---

[10] PEW Report: The Shrinking Tax Gap between Philadelphia and its Suburbs (2016)
[11] PEW Report included taxes on property, sales and income.
[12] Philly Mag: "Philly's Millennial Population Growing Fastest Among 10 Largest Cities" 2 November 2015
[13] Philly Mag: "Philly's Millennial Population Growing Fastest Among 10 Largest Cities" 2 November 2015
[14] Curbed: "Report: Philly is 32nd in millennial population growth" 15 November 2016
[15] Adobo Report: "Millennial Homebuyers: Where Are Young People Buying the Most Homes?" 30 June 2017.

Financial Ratios: What Credit Rating Agencies Look for When Assessing Municipalities

The goal of a credit rating agency is to provide an objective opinion on an entity's *credit worthiness*, or the odds that a borrower will default on its credit obligations. The three prominent rating agencies, Moody's, Standard and Poor's, and Fitch, all have similarly tiered grading scales that advise bond purchasers on the risk associated with each city's bonds. Higher credit ratings equate to less risk of default, and thus lower interest payments.


Credit ratings
By agency

Highest — INVESTMENT GRADE ◀ | ▶ NON-INVESTMENT GRADE — Lowest

Moody's	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	
S&P	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	D
Fitch	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	CC	C	RD	D	

Sources: Fitch; Moody's; Standard & Poor's

Figure 6[16]

In order to form as objective of an opinion as possible, the rating agencies compare quantitative ratios that allow for a better understanding of a borrower's economic condition, financial position, liquidity, solvency, and exposure to risk. Following the standards set by the Government Accounting Standards Board (GASB), Comprehensive Annual Financial Reports produce comparable figures, which allow credit rating agencies and the public to better understand credit worthiness. [17]

Moody's Rating (Date of Report)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX
	Aa1 (2/17)	Aaa (5/17)	Aaa (5/17)	Ba1 (11/16)	A1 (5/16)	A1 (2/17)	Aa3 (3/16)
	Jacksonville, FL	**Los Angeles, CA**	**Miami, FL**	**New York, NY**	**Philadelphia, PA**	**San Diego, CA**	**San Francisco, CA**
	Aa2 (6/14)	Aa2 (10/16)	Aa3 (5/16)	Aa2 (2/14)	A2 (9/16)	Aa2 (2/16)	Aa1 (1/17)

Figure 7

In September, 2016, Moody's reaffirmed Philadelphia's General Obligation (GO) bond rating at A2, but updated the credit outlook from "Stable" to "Negative." Although Philadelphia's bonds are still considered a low credit risk, marginal increases in borrowing costs associated with lower credit ratings add up over time. Thus, the City should continue to prioritize improving its rating. For example, a 0.5% increase on a $100 million, 30-Year bond increases the cost of borrowing by approximately 6.5%, or over approximately $325,000 per year.[18] The FY16 CAFR (section titled "Outstanding Debt by Type") listed Philadelphia's GO level at $2.1 billion. If the City does not address issues raised in Moody's latest rating action, a downgrade may occur, which will increase the City's cost to borrow and address its capital issues.

---

[16] Image found at: https://www.economist.com/blogs/buttonwood/2013/02/credit-ratings

[17] GASB Pronouncements and Rules found on GASB's Website

[18] Yield for a AAA rated municipal bond is approximately 2.73%, based on Bloomberg Benchmark; current spread between AAA and A rated municipal bonds is assumed to be approximately .5%.

Figure 8 below shows a more detailed snapshot of some of the financial ratios credit rating agencies consider when assessing municipalities' financial condition. The chart includes a comparison to the average and median of the comparable cities (both excluding and including Philadelphia in the calculation).

FY 2016 CAFR	Philadelphia, PA	Average of Comparison Cities	Median of Comparison Cities	Average including Philadelphia	Median including Philadelphia
Population (2016, Census Quickfacts)	$ 1,567,872	$ 1,892,174	$ 880,619	$ 1,869,009	$ 1,099,274
Net Growth (2010-2016)	41,866	96,016	58,835	92,148	57,213
% Population Growth	3%	6%	8%	6%	7%
Median Household Income (2011-15)	$ 38,253	$ 49,153	$ 47,527	$ 48,374	$ 47,146
Median Gross Rent (2011-2015)	$ 922	$ 1,070	$ 971	$ 1,059	$ 968
Median Owner Occupied Home Value (2011-2015)	$ 145,300.00	$ 300,346	$ 222,900	$ 289,271	$ 216,050
Net Position (Including Deferred Inflows and Outflows)	$ (4,629,300,000)	$ (12,893,599,076)	$ (95,036,000)	$ (12,303,291,999)	$ (120,024,500)
Change in Net Position	$ (86,260,000)	$ 437,837,000	$ 153,103,000	$ 400,401,500	$ 150,915,500
Net Pension Liability	$ 6,290,455,000	$ 10,437,392,443	$ 2,332,218,000	$ 10,141,182,625	$ 2,389,124,000
Net Assets in Capital Assets	$ 2,278,885,000	$ 4,000,428,677	$ 5,063,000,000	$ 3,877,461,272	$ 4,185,298,500
Current (Non Capital) Assets	$ 9,072,362,000	$ 22,320,729,334	$ 10,405,734,000	$ 21,374,417,382	$ 9,739,048,000
Total Current Liabilities + 1 Year Long Term	$ 2,099,322,000	$ 3,655,440,155	$ 792,199,000	$ 3,544,288,858	$ 828,495,500
Long-Term Liabilities Outstanding	$ 14,368,692,000	$ 34,557,813,701	$ 9,461,034,000	$ 33,115,733,579	$ 11,914,863,000
General Fund Balance	$ 148,300,000	$ 451,993,446	$ 235,517,500	$ 428,632,411	$ 207,983,000
General Fund Balance as % of Revenues	4%	21%	20%	20%	19%
General Fund Revenues	$ 3,988,967,000	$ 8,052,395,480	$ 1,805,797,000	$ 7,762,150,589	$ 2,041,799,500
General Fund Surplus (Deficit)	$ (26,828,000)	$ 544,365,643	$ 129,122,000	$ 503,566,097	$ 101,236,179
Days of Expenditures On Hand	13	82	80	77	80
Net Position Per Capita	$ (2,953)	$ 1,001	$ (41)	$ 719	$ (76)
Exposure Ratio (Non-Local Revenue / Total Revenue)	8%	13%	11%	12%	10%
Total Liabilities Per Capita	$ 10,192	$ 14,177	$ 10,337	$ 13,893	$ 10,265
Total Liabilities (No Pension Liability) Per Capita	$ 6,180	$ 10,350	$ 7,700	$ 10,052	$ 7,468
Total Liabilities / Total Assets (Leverage)	141%	104%	100%	107%	101%
General Fund Expenditures Per Capita	$ 2,561	$ 2,336	$ 1,247	$ 2,352	$ 1,265
Quick Ratio (Cash + Current Investments / Current Liabilities)	0.53	2.01	1.67	1.90	1.62
Current Ratio (Current Assets / Current Liabilities)	1.77	3.63	2.96	3.50	2.89
% Revenue Property Taxes	14%	39%	41%	37%	39%
Net Pension Liability as % of of Total Liabilities	39%	29%	28%	30%	28%
Property Tax Collection Rate: Net Collected in One Year	91%	96%	98%	96%	98%
% Active in Pension Fund	42%	49%	48%	49%	48%

Figure 8[19],[20],[21],[22]

[19] Total Liabilities and Assets include deferred inflows and outflows, which are resources currently held for the following fiscal period; General Fund ratios were calculated on a Budgetary basis.
[20] Cleveland had not produced a publicly available FY16 CAFR, so the FY15 CAFR was used for this analysis.
[21] Chicago does not collect property taxes in its General Fund. FY16 CAFR (Page 36)
[22] Property Tax and Non-Local Revenues ratios were calculated on a GAAP basis.

Philadelphia's Trends through 3 Years of Ratio Analysis

Over the past three fiscal years, Philadelphia has improved its fiscal position, overall. On paper, however, the Total Liabilities increased by $4.5 billion from FY14 to FY15. This is primarily due to changes in the reporting requirements under GASB requiring the reporting of liabilities.[23] Prior to FY15, cities did not have to report the Net Pension Liability – the difference between the total pension liability and fiduciary net position – under their long-term liabilities. Due to the change in requirements, most cities experienced a significant drop in overall Net Position. However, the Change in Net Position calculation did adjust for the change in reporting requirements, to allow for an apples-to-apples comparison. As seen in the graph below, Philadelphia has increased its Net Position by $414.6 million in the last two fiscal years, and an average of $109.4 million annually over 3 fiscal years. Several cities experienced significant decreases in their Net Position during the latest fiscal year. It appears from several of these cities' CAFRs that these losses in Net Position are largely attributable to worsening pension funding issues.

	Total Assets	Total Liabilities	Change in Net Position	Change in Net Position as a % of Total Primary Government Revenues	General Fund Surplus (Deficit)	General Fund Property Tax Revenues	Property Tax Collection Rate: Net Collected in Calendar Year of Levy	General Fund Balance as a % of General Fund Revenues	Net Pension Liability (Primary Govt)
Philadelphia: FY14	$ 10,043,800,000	$ 10,114,800,000	$ (86,200,000)	-1.2%	$ (80,915,000)	$ 526,424,000	88%	5.6%	$ 5,525,514,869
Philadelphia: FY15	$ 10,747,800,000	$ 15,435,500,000	$ 334,100,000	4.6%	$ (71,748,000)	$ 536,449,000	88%	4.1%	$ 5,744,278,000
Philadelphia: FY16	$ 11,351,200,000	$ 15,980,500,000	$ 80,532,000	1.1%	$ (26,828,000)	$ 571,647,000	91%	3.7%	$ 6,290,455,000
FY16 Average of Observed Cities	$ 26,321,158,011	$ 39,214,679,395	$ (333,229,770)	2.7%	$ 544,365,643	$ 2,488,864,090	96%	21.4%	$ 10,437,392,443
FY16 Median of Observed Cities	$ 15,963,783,000	$ 10,257,082,000	$ 81,595,000	3.5%	$ 129,122,000	$ 791,420,000	98%	20.0%	$ 2,332,218,000
FY16 Average: Including Philadelphia	$ 25,251,878,653	$ 37,555,096,152	$ (303,675,358)	2.7%	$ 503,566,097	$ 2,351,920,012	96%	20.0%	$ 10,141,182,625
FY16 Median: Including Philadelphia	$ 15,283,382,500	$ 13,118,798,000	$ 81,063,500	2.9%	$ 101,236,179	$ 681,533,500	98%	19.5%	$ 2,389,124,000

Figure 9[24,25]

Outlooks

To highlight trends, the credit rating agencies release "outlook," which identify negative or positive trends in the short-term.[26] If negative outlooks are not addressed, a credit downgrade is likely to follow. In September 2016 (and reaffirmed in June 2017), Moody's changed the City of Philadelphia's outlook to negative, stating "the negative outlook reflects the City's inability to achieve structural balance, resulting in continued weakening reserve levels, even considering the fact that the City conservatively budgets and revenues have been on an upward trend."[27]

Moody's Outlook (as of last rating decision)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX
	Stable	Stable	Stable	Under Review	Stable	Negative	Negative
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA
	Stable	Stable	Positive	Stable	Negative	Stable	Stable

Figure 10

---

[23] GASB Statements 67 and 68, released 8/2/2012 require the reporting of pension assets and liabilities under totals.

[24] Change in Net Position does not include prior year adjustments; Total Assets and Total Liabilities were adjusted to include deferred inflows and outflows. General Fund ratios were calculated on a Budgetary basis.

[25] General Fund Property tax revenues were calculated on a GAAP basis

[26] Outlooks are listed as "Stable", "Positive" or "Negative".

[27] Moody's Rating Action, Released 9/6/16

Increases in the Net Pension Liability can be partly attributed to lowering the assumed rate of return to an increasingly realistic level – down from 8.75% in 2008 to a current rate of 7.7%. In fact, the Pension Fund achieved a 12.9% return – net of fees – in FY17, which is 68% (or 520 basis points) above the assumed rate of return, and notably above the total fund policy benchmark.[28] This is partly attributable to the Pension Board's actions to: (a) rebalance its portfolio by reallocating assets to more passively managed funds, (b) eliminate high-fee, hedge-fund and other active managers who were performing below their respective benchmarks, and (c) renegotiate the fees of well-performing active managers to reduce overall costs.

Although lowering the assumed rate of return raises the actuarial liability (which increases the size of liabilities on the balance sheet), it signals that the City is serious about supporting the Pension Fund in the long-run, and more accurately projecting liabilities. Cities with higher funded ratios may be under-projecting future liabilities due to the use of higher assumed rates of return. For example, Houston's Firefighter's Pension Fund and Milwaukee's Employee Pension Fund have high funded ratios, but they also have assumed rates of return of 8.5% -- far above the average.[29] An analysis by the Milwaukee Journal Sentinel projected that the Net Pension Liability would *double* if their rate of return fell in line with the average of other public pensions.[30] As of 2016, the Center for Retirement Research found an average assumed rate of return of 7.57% for public pension plans, with average 30 year returns at about 8.7%.[31] Please keep in mind, however, that many analysts and finance professionals believe that the 30 year average returns do not accurately reflect the future investment outlook (especially following the Great Recession).[32] As seen in *Figure 11* below, many return assumptions in Public Plans are continuing to decrease with time.

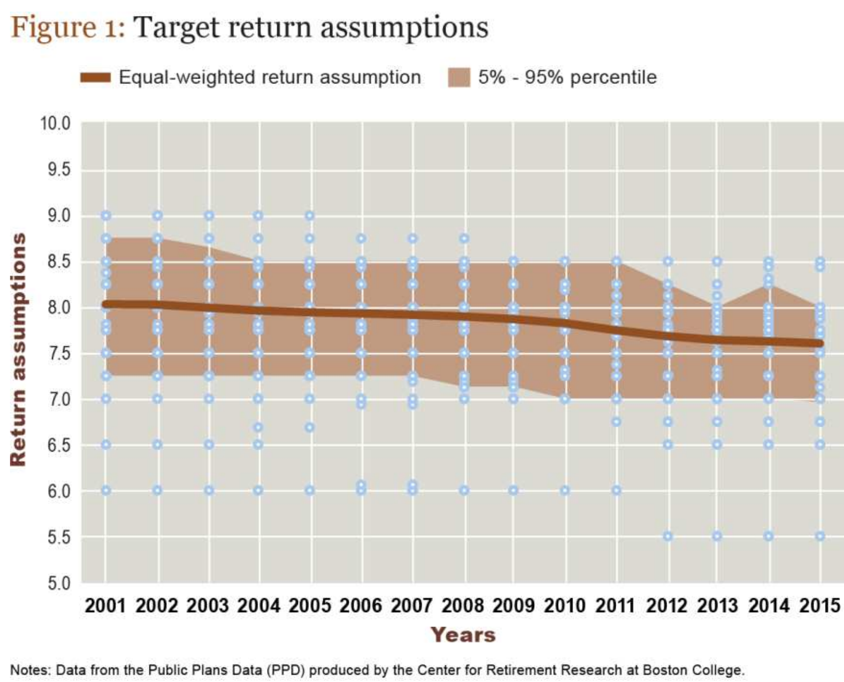


Figure 11[33]

[28] Philadelphia Board of Pensions & Retirement: Investment Performance Summary, June 2017.
[29] Pensions and Investments: "Investment Return Assumptions of Public Pension Funds" March 2017
[30] Stein, Jason. "City Pension Banking on Big Returns." Milwaukee Journal Sentinel, 25 Sept. 2016 Note: Rate Reduction not clarified in article.
[31] Public Plans Data: National Data Overview, 2016
[32] Bullock, Nicole. "The crumbling assumptions of US public pension plans." Financial Times, 26 Aug. 2016.
[33] Image pulled from following article: link

The "age" of Philadelphia's Pension Plan potentially puts the City on better footing to address its long-term liabilities going forward. In Philadelphia's FY16 CAFR, the City states that there are 27,951 active members in the Pension System, and 37,945 non-active members (retired, disabled, vested, in DROP), meaning that only 42% of pension members are actively making contributions, compared to a median elsewhere of 48% (as seen in *Figure 12*). When comparing the City's pension system to the pension systems of other cities, Philadelphia's low active member rate could lead to an improved Funded Ratio in the years ahead. The City's Pension Plan should become less mature with time as the number of participants in the City's worst-funded plan (Plan 67) decreases.

Additionally, as contributions increase on the front end (or as more assets are added to the Plan above the MMO), and retirement risks shift on the back end (i.e. stacked-hybrid plans, which are part defined benefit and part defined contribution), the amount of inflows to the Fund will theoretically, proportionately increase relative to the amount of outflows from the Fund due upon retirement. Coupled with a well-managed pension fund with reasonable assumed rates of return, Philadelphia's Pension Fund – funded ratio – should improve to a healthier position.

% Active Members in Pension System	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	48%	44%	47%	43%	32%	51%	49%	49%	49%
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	86%	50%	38%	51%	42%	48%	50%	48%	48%

Figure 12[34]

[34] Percent active is a calculation of active members vs. all non-active members in each Pension Plan, mostly pulled from each city's CAFR.

Economic Condition

Economic Condition is, generally, a government's ability and willingness to meets it obligations. Economic Condition can be indicated by the growth of the local economy, as well as a city's fund balance. As explained below, the City of Philadelphia has taken strides to improve its local economic condition through tax reductions, even at the expense of lower fund balances.

The fund balance is the amount of excess revenues that the government is holding in reserve. When discussing credit ratings, most analysts refer to the "Unrestricted" fund balance, meaning the level of discretionary assets on hand that can be spent for general fund purposes. "Restricted" fund balances represent funds that can only be spent on specific purposes (e.g., debt service). As discussed in previous reports and during previous Council hearings, Philadelphia has a fund balance that is notably below the recommended threshold. Creditors recommend having a fund balance that can cover 60 days of expenses; Philadelphia's budgetary fund balance can cover approximately 13 days of spending. However, as discussed in City Council's fiscal stability hearings last year, the credit rating agencies also consider the City's ability to rein in spending in the short-term, which was highlighted by the City's ability to continue debt service payments even during the Great Recession. [35] This year, the City has placed over $70 million in reserves for FY18, which will likely be viewed favorably by rating agencies to address liquidity concerns.

As noted above, the General Fund Balance for Philadelphia decreased by 30% from FY14 to FY16. It is important to note, however, that the net decrease of $63 million is still relatively small, representing approximately 1.5% of the General Fund Budget of over $4 billion.

Additionally, the existence of PICA, or *Pennsylvania Intergovernmental Cooperation Authority*, counteracts some of the negative pressures of low fund balances. PICA was created by the State in 1991 as a regulatory backstop during financial crises. If the City attempts to pass an unbalanced budget and/or Five-Year Plan, PICA can withhold certain funds.[36] This has incentivized the City, even prior to and after the Great Recession, to raise taxes or reduce spending during economic hardships to keep the budget in balance.

Days of Spending in General Fund	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	102	160	120	28	60	56	50	82	77
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	81	80	85	2	13	58	105	80	80

Figure 13[37]

An operating deficit is an indication that a government is structurally out of balance by spending more money than it is collecting within a given year, leading to decisions either to raise additional revenues or reduce spending in the short- and long-term. To better understand structural deficits, we can look to high fixed costs, such as debt service, pension payments, or Other Post-Employee Benefits (OPEBs). As seen below, Philadelphia is slightly

---

[35] Committee on Fiscal Stability, 9/7/2016.
[36] PICA collects a portion of the Wage and Earnings Tax, which can be withheld in addition to state funds.
[37] Days of Spending in General Fund was calculated on a Budgetary basis.

below the average and median operating surpluses of the observed, peer cities. However, the City's most recent Five-Year Plan shows more operating surpluses than deficits, and includes reserve line-items totaling approximately $475 million as unallocated and therefore available for additional expenditures. Moreover, PICA's existence, and the requirement of passing a balanced Five-Year Plan annually, encourages the City to continue its long-term conservative goals of improving its economic condition.

General Fund Surplus (Deficit)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ (15,512,000)	$ 131,015,000	$ 1,916,000	$ 137,017,000	$ 15,946,000	$ (16,350,000)	$ 361,097,000	$ 544,365,643	$ 503,566,097
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ 129,122,000	$ 269,215,000	$ 73,350,357	$ 5,698,764,000	$ (26,828,000)	$ 433,000	$ 290,740,000	$ 129,122,000	$ 101,236,179

Figure 14[38]

Financial Position

Net Position is one of the clearer indicators of financial health. Net Position is the overall difference between assets and liabilities after accounting for deferred outflows and inflows of resources. If a government has a positive net position, meaning more overall assets than liabilities, some of those assets could (in theory) be liquidated to cover liabilities. However, if a government has a negative net position, additional assets would need to be acquired to cover the liabilities. At the end of our last fiscal year, Philadelphia had a net position of -$4.6 billion, meaning the City owes more in the long-term than it owns in assets as of today. However, if current trends continue, the City could achieve a positive net position, especially if the Pension system reaches a fully funded status (in 2030, as projected). Los Angeles, on the other hand, has a positive net position of $19.8 billion. Los Angeles' FY16 CAFR shows a $17.8 billion net position in capital assets, with highly valued "Buildings, Facilities, and Equipment" that are leveraged at low levels.

Net Position	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ 6,973,651,000	$ 3,792,394,000	$ (548,961,000)	$ (27,429,919,000)	$ 2,477,544,000	$ (145,013,000)	$ (95,036,000)	$ (12,893,599,076)	$ (12,303,291,999)
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ (744,739,000)	$ 19,867,253,000	$ (334,478,985)	$ (188,171,298,000)	$ (4,629,300,000)	$ 8,734,916,000	$ 8,006,899,000	$ (95,036,000)	$ (120,024,500)

Figure 15

Net Position per Capita	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ 14,758	$ 6,170	$ (815)	$ (10,141)	$ 6,422	$ (110)	$ (41)	$ 1,001	$ 719
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ (846)	$ 4,996	$ (737)	$ (22,040)	$ (2,953)	$ 6,210	$ 9,194	$ (41)	$ (76)

Figure 16

[38] General Fund Surplus (Deficit) was calculated on a Budgetary basis.

Changes in Net Position

	Most Current CAFR*	2nd most recent CAFR	3rd most recent CAFR	3 Fiscal Year Average
Atlanta, GA	$ 304,200,000	$ 205,154,000	$ 148,728,000	$ 219,360,667
Baltimore, MD	$ 399,032,000	$ 304,219,000	$ 221,989,000	$ 308,413,333
Boston, MA	$ 81,595,000	$ 77,736,000	$ 17,831,000	$ 59,054,000
Chicago, IL	$ (3,598,473,000)	$ (5,417,868,000)	$ (1,165,178,000)	$ (3,393,839,667)
Cleveland, OH (2015)	$ 49,256,000	$ 170,697,000	$ 145,219,000	$ 121,724,000
Dallas, TX	$ (746,008,000)	$ 349,429,000	$ 194,740,000	$ (67,279,667)
Houston, TX	$ (214,621,000)	$ (112,128,000)	$ 153,103,000	$ (57,882,000)
Jacksonville, FL	$ 150,351,000	$ 78,375,000	$ 81,636,000	$ 103,454,000
Los Angeles, CA	$ 2,284,250,000	$ 1,644,018,000	$ 997,938,000	$ 1,642,068,667
Miami, FL	$ (22,991,009)	$ (37,652,637)	$ 19,926,000	$ (13,572,549)
New York, NY	$ (5,089,385,000)	$ 9,046,559,000	$ 3,641,447,000	$ 2,532,873,667
Philadelphia, PA	$ 80,532,000	$ 334,100,000	$ (86,260,000)	$ 109,457,333
San Diego, CA	$ 620,792,000	$ 848,946,000	$ 277,120,000	$ 582,286,000
San Francisco, CA	$ 1,450,015,000	$ 1,455,303,000	$ 957,382,000	$ 1,287,566,667
Average of Observed Cities	Average	Average	Average	Average
	$ (333,229,770)	$ 662,522,105	$ 437,837,000	$ 255,709,778
Median of Observed Cities	Median	Median	Median	Median
	$ 81,595,000	$ 205,154,000	$ 153,103,000	$ 121,724,000
Average: Including Philadelphia	Average	Average	Average	Average
	$ (303,675,358)	$ 639,063,383	$ 400,401,500	$ 245,263,175
Median: Including Philadelphia	Median	Median	Median	Median
	$ 81,063,500	$ 254,686,500	$ 150,915,500	$ 115,590,667

Most recent CAFR is from FY16, unless stated otherwise in parenthesis next to city.

Figure 17

Observing a municipality's Change in Net Position is important, as credit rating agencies take continual decreases in Net Position as a sign of long-term fiscal instability. For example, Dallas, Texas, experienced a $746 million decrease in their net position in FY16, even while maintaining decent general fund reserves and a small operating deficit. The root of the decrease in assets is a quickly worsening pension crisis, where beneficiaries are retiring en masse to take advantage of Dallas' generous DROP Benefit, which promises 8-9% returns.[39] Additionally, Dallas's pension plan invested heavily in real estate and infrastructure, and is seeing negative returns on those assets, while maintaining an 8% assumed return.[40] In FY15 and FY16, Philadelphia experienced positive changes in Net Position, increasing by a total of $414 million since the highlighted changes in liability reporting were enacted.

Change in Net Position	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ 304,200,000	$ 399,032,000	$ 81,595,000	$ (3,598,473,000)	$ 49,256,000	$ (746,008,000)	$ (214,621,000)	$ (333,229,770)	$ (303,675,358)
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ 150,351,000	$ 2,284,250,000	$ (22,991,009)	$ (5,089,385,000)	$ 80,532,000	$ 620,792,000	$ 1,450,015,000	$ 81,595,000	$ 81,063,500

Figure 18

[39] Dallas News "Cops and Firefighters, Not Taxpayers are Rescuing the Pension" May 2017
[40] Dallas Magazine "Towering Inferno" May 2012

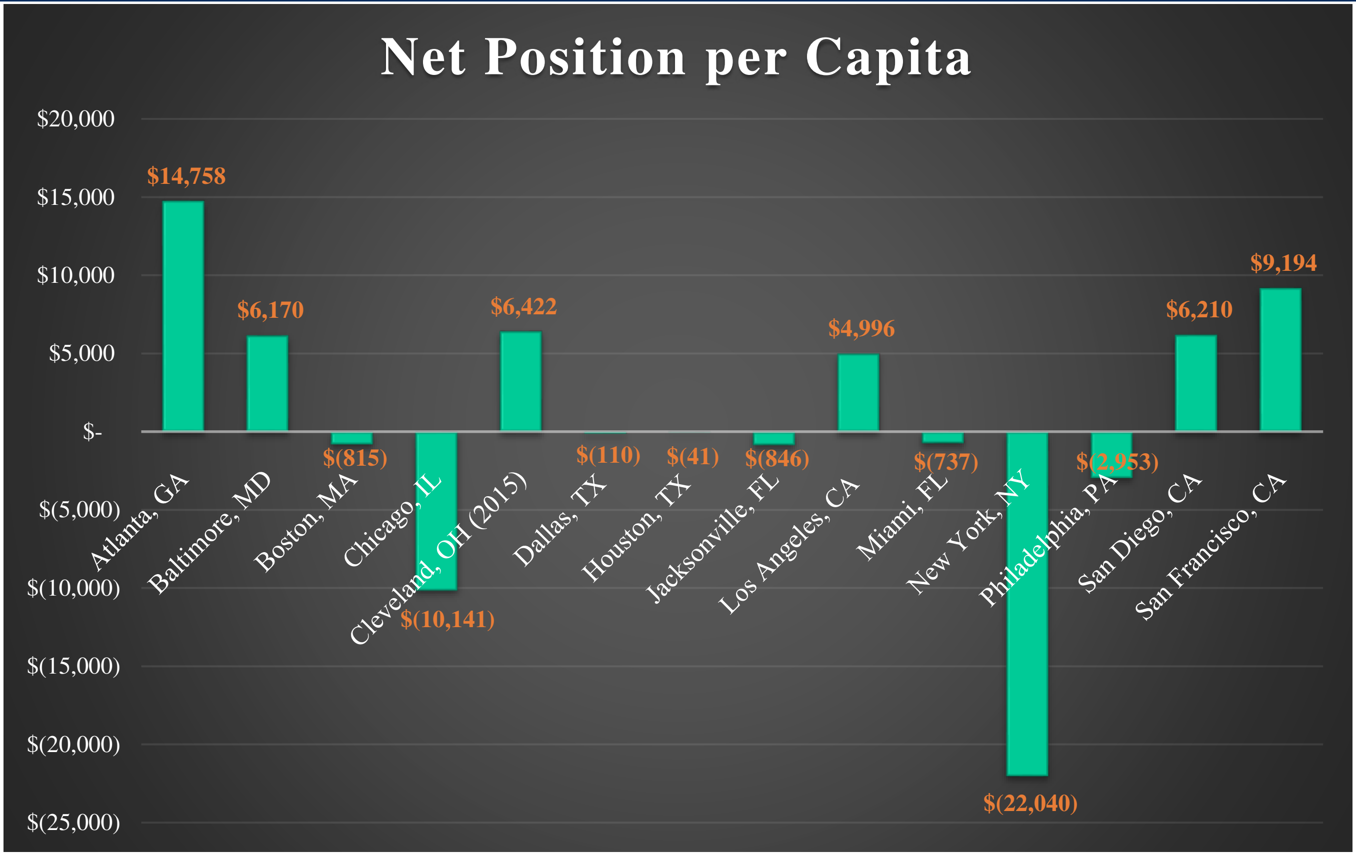


Figure 19

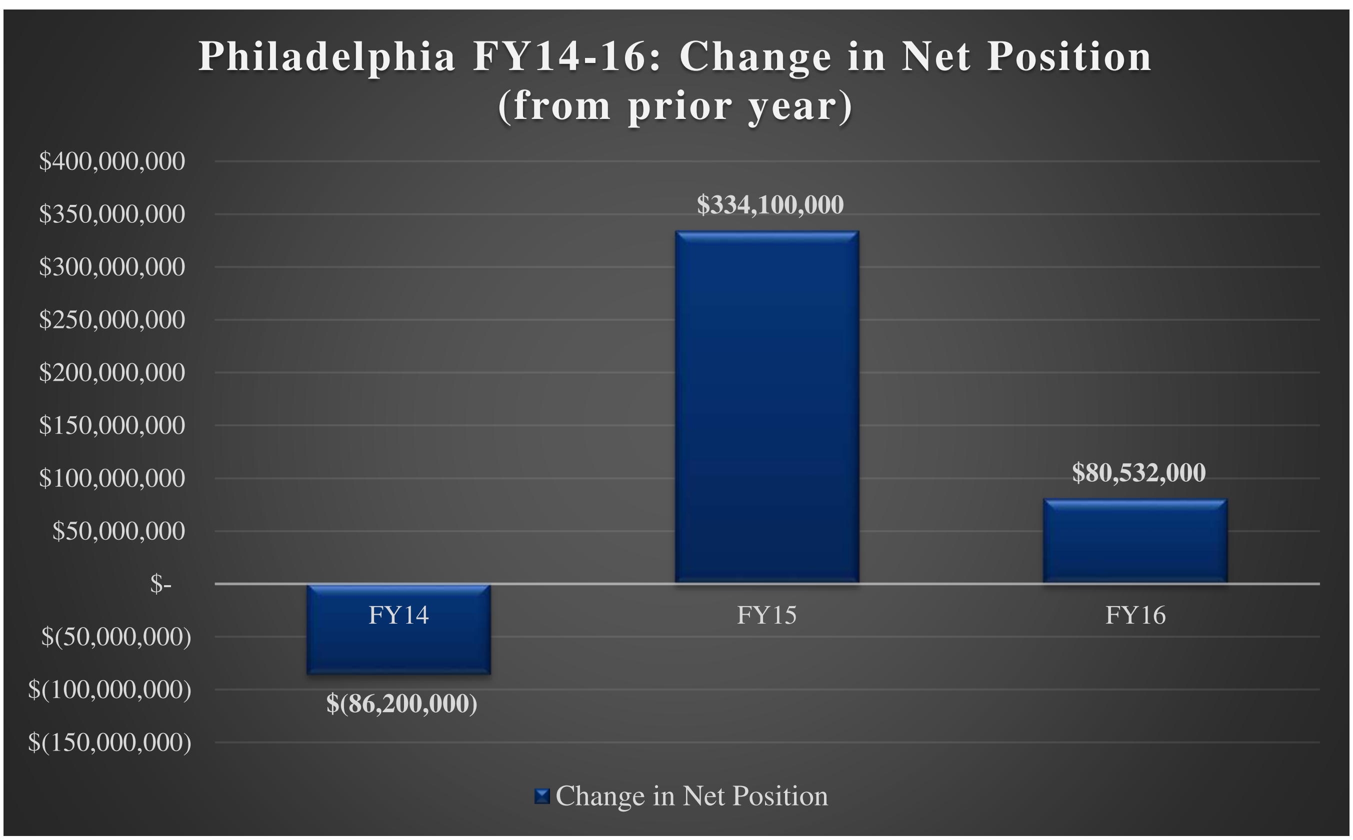


Figure 20

Liquidity

The "Quick Ratio" and "Current Ratio" are indicators of a government's short-term liquidity. For this study's purposes, the Quick Ratio represents a *government's cash and current investments divided by current liabilities*. A Quick Ratio of 2 indicates that a government has $2 on-hand for every $1 in short-term liabilities. Philadelphia's lack of short-term liquidity, most notably seen in our unrestricted fund balance, is not viewed as a credit positive, primarily due to the City having less, unallocated – or available – short-term funds to cover its short-term obligations. The City's Current Ratio, which includes several other current assets (inventories, prepaid expenses, internal balances, etc.), is similarly below the average and medians of the comparable cities. However, given the City's ability to reduce short-term spending quickly, the City's below average Quick and Current Ratios do not indicate an inability to pay current liabilities.

Quick Ratio (Cash + Current Investments / Current Liabilities)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	2.9	1.2	2.6	0.4	1.7	1.0	1.6	2.0	1.9
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	2.3	4.3	2.1	0.6	0.5	4.0	1.5	1.7	1.6

Figure 21

Current Ratio (Current Assets / Current Liabilities)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	7.1	2.3	2.8	1.3	3.5	3.1	3.0	3.6	3.5
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	0.7	10.8	3.5	1.4	1.8	5.7	2.1	3.0	2.9

Figure 22

Solvency

The Debt-to-Assets Ratio measures how leveraged a government is when comparing liabilities to assets. This ratio highlights the capability of a city to issue additional debt, and its ability to pay debt service. Philadelphia's Debt-to-Asset Ratio is 141%, meaning the City has $1.41 in liabilities for every $1 held in assets. Of Philadelphia's $15.9 billion in total liabilities, $6.29 billion is related to the Net Pension Liability. The Net Pension Liability, coupled with bonded debt, have left the City with a below-average standing in terms of solvency. However, as discussed in the "Outlooks" section, Philadelphia has taken steps to address the long-term needs of its pension system. If current trends continue, Philadelphia should see its solvency improve.

Total Liabilities / Total Assets	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	60%	62%	113%	166%	61%	101%	100%	104%	107%
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	115%	69%	117%	275%	141%	40%	74%	100%	101%

Figure 23

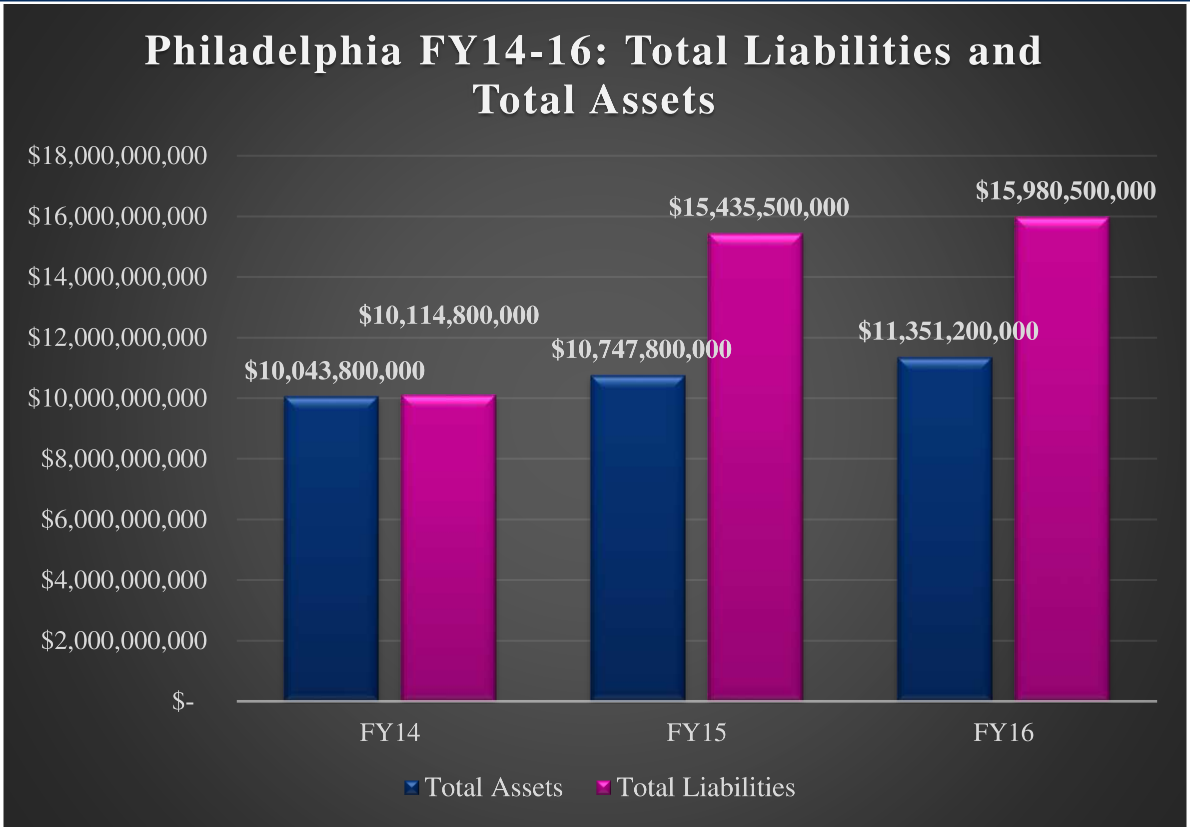


Figure 24

Expenses-per-capita, revenue-per-capita, and debt-per-capita are ratios that determine the amount of government spending, revenue and debt per citizen. Philadelphia, as a consolidated City-County government, has structurally higher ratios. In other cities, county governments share the burden of service delivery and borrowing, while spreading taxing authority to suburban residents. Philadelphia, thus, has an above-average service delivery burden compared to surrounding municipalities and most other cities. With that said, these ratios can highlight the capacity of a municipality to raise additional revenues in a time of crisis.

Total Liabilities per Capita	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ 21,707	$ 9,996	$ 6,904	$ 25,407	$ 10,047	$ 12,223	$ 10,337	$ 14,177	$ 13,893
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ 6,560	$ 10,976	$ 5,026	$ 34,639	$ 10,192	$ 4,172	$ 26,310	$ 10,337	$ 10,265

Figure 25

Total General Fund Expenditures Per Capita	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	$ 1,155	$ 2,725	$ 4,280	$ 1,316	$ 1,283	$ 870	$ 832	$ 2,336	$ 2,352
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	$ 1,068	$ 1,176	$ 1,247	$ 8,632	$ 2,561	$ 866	$ 4,916	$ 1,247	$ 1,265

Figure 26[41]

[41] This category was calculated on a Budgetary basis.

Risk Exposure

Exposure to risk can be estimated in several ways. One indicator to estimate risk for a municipality is to compare its local (i.e. taxes and fees imposed by cities) and non-local revenues (grants, other government revenues, investment income, etc.). When a local government is heavily reliant on non-local sources of revenue, this reliance creates a risk, as shifts in non-local political priorities, or economic downturns, can drastically reduce revenues. If non-local revenues begin to decline, taxes would need to be raised (or expenditures reduced) locally to prevent increasing deficits. Although risk exposure is generally measured by comparing non-local revenues to local *property* tax revenues, Philadelphia's relatively heavier reliance on the wage tax, and the fact that some of our comparable cities also depend on different sources of revenue -- means that these risk exposure ratios are not exactly apples-to-apples comparisons. The City's risk exposure ratio compares non-local revenues to all general fund revenues, and the ratio indicates what percentage of revenues are non-local taxes (seen below in *Figure 27*). When analyst Matt Fabian spoke at City Council's hearings on Fiscal Stability, he stated that Philadelphia's below average reliance on non-local revenues (7.7%) puts the City at an advantage, as the City is not as structurally reliant on revenues from other governments to function.[42] On the other hand, cities with high exposure ratios, such as Boston (18.9%), are more fiscally solvent, likely because their State has supported them through difficult financial periods, allowing for more prudent financial planning. While some cities that are less reliant on revenues from other governments – whom are also responsible for county functions – may have lower risk exposure ratios, there is an arguable additional risk associated with having to be more reliant on local revenues to support said county functions.

Exposure Ratio (Non-Local Revenue / General Fund Revenue)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	0.4%	7.7%	18.9%	21.4%	8.6%	1.0%	2.6%	12.6%	12.3%
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	15.3%	1.2%	10.7%	26.4%	7.7%	30.3%	19.9%	10.7%	9.6%

Figure 27[43]

Tax Leverage Ratio (Total Expenditures / Property Tax Revenues)	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	2.82	2.07	1.51	0.00	15.16	1.42	1.84	3.06	3.34
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	1.74	2.68	2.54	3.26	7.02	2.90	1.84	2.07	2.30

Figure 28[44],[45]

The leverage ratio seen in *Figure 28* is an indicator of how reliant expenditures are on property taxes. As discussed previously, this ratio is an indication of Philadelphia's tax structure, which is unusually dependent on wage tax revenues. Philadelphia's ratio of 7.02 means that for every $1 received in property taxes, $7.02 is spent out of the General Fund, which in turn means that the City must find $6.02 from sources other than the property tax. Although a higher than average ratio might suggest that a municipality could raise property tax rates in the short-term, in reality, such cities that have the lowest property tax revenues (Cleveland, Philadelphia, Milwaukee) use

---

42 Transcript: Committee on Fiscal Stability, page 119 (link)

43 General Fund Revenue calculated on a Budgetary basis.

44 As stated earlier, Chicago does not include property tax revenues in its General Fund (thus, why its ratio is 0.0) FY16 CAFR (page 36).

45 Property Tax and Non-Local tax revenues calculated on a GAAP basis.

alternative sources such as income taxes for revenue. In other words, the total tax burden is such that it is unrealistic to expect significant increases in property tax rates in those cities.

Collection ratios, or the amount of taxes *levied* vs. the actual amount *collected*, are an important indicator of the capacity and efficiency of a municipality. As Moody's states on their methodology page, their ratings reflect the perceived "ability of an issuer to generate cash in the future."[46] Lower collection rates represent a difficulty in raising cash, and are thus a credit negative. Philadelphia's collection rates, although below average, have been improving. In the past three fiscal years, the first-year collection rate has increased from 87.7% to 90.9%, with overall property tax revenues increasing from $526 million to $571 million, an 8.59% increase.

Property Tax Collection Rate: Net Collected in One Year	Atlanta, GA	Baltimore, MD	Boston, MA	Chicago, IL	Cleveland, OH (2015)	Dallas, TX	Houston, TX	Average of Observed Cities	Average including Philadelphia
	99.2%	94.6%	101.7%	97.5%	82.8%	97.7%	99.1%	96.3%	95.9%
	Jacksonville, FL	Los Angeles, CA	Miami, FL	New York, NY	Philadelphia, PA	San Diego, CA	San Francisco, CA	Median of Observed Cities	Median Including Philadelphia
	99.8%	96.8%	90.6%	93.7%	90.9%	99.2%	99.1%	97.7%	97.6%

Figure 29

[46] Moody's: Rating and Policy Approach

Conclusion

The above analysis attempts to show how Philadelphia compares to some of its peer cities, through using Ratio Analysis, pulling key financial performance data from the most recent CAFRs. While Philadelphia may rank below its peers in certain categories, the City has taken strides to improve its standing, including actions most recently taken during this year's Budget process. Given the multiple challenges that exist as a result of Philadelphia's (a) demographics, including its extremely diverse population (race and income), large size, high poverty rate, and recent growth; (b) its added service delivery burden due to being both a city and county; and (c) its role in providing substantial funding, annually, to its School District, the City has continually found ways to serve its population adequately while making the necessary trade-offs that large municipalities and counties must make.